

Planning and Decision Framework for Chemical Incident Consequence Management

This document provides a framework for federal, state, local, tribal, and territorial (FSLTT) government and non-governmental authorities for use in planning and expediting decisions in the aftermath of a nationally significant or large-scale hazardous chemical release.

The United States faces a wide array of chemical threats and hazards, and chemical incidents may develop into complex, multi-jurisdictional incidents with serious public health, safety, and environment consequences. Such incidents require well-coordinated response and recovery efforts among private sector responsible parties, FSLTT governments, and nongovernmental organizations to support the needs of incident commanders and community leaders. The *Planning and Decision Framework for Chemical Incident Consequence Management* (Framework) document provides the needed technical planning and decision-making guidance for response to complex, large-scale, and high-consequence chemical incidents.

The Framework focuses on a particular subset of consequence management activities critical to chemical incident response and recovery. Specifically, these include: 1) characterization of potential contamination of the general area and specific sites impacted by the incident; 2) general area and site-specific remediation; and 3) clearance for re-entry/re-occupation of general areas or specific sites contaminated by chemical hazardous materials. These consequence management activities necessitate significant technical support including specific subject matter expertise, risk-based decision methodologies, and specialty tools.

The Framework facilitates technical planning and decision-making centered around the following objectives:

- Protection of human health & safety during the response to and recovery from nationally significant chemical incidents
- Establish clear, consistent guidelines to inform the development of consequence management strategies tailored to the specifics of a given incident
- Provide criteria for determining appropriate environmental, health-based exposure levels and other safety criteria applicable to various conditions and scenarios
- Promote cost-effective and socio-economically responsible remediation strategies and methods, including waste management considerations to safeguard public health & the environment



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The guidance provided in this document is intended to augment existing national doctrine and plans for all-hazards incident response and recovery, including but not limited to: National Incident Management System (NIMS) and the Incident Command System (ICS), National Response Framework (NRF), National Disaster Recovery Framework (NDRF), Federal Interagency Operational Plans (FIOPs) for Response and Recovery, Oil and Chemical Incident Annex (OCIA) to the FIOPs for Response and Recovery, and various other FSLTT response and recovery plans.

The document is organized into the following five sections:

Introduction

Provides information on the background, purpose, scope, audience, and document organizational structure.

Operational Phasing and Planning Framework for Chemical Incident Consequence Management

Provides an overview of key decision process guidelines, operational phasing, and an overarching planning and decision framework for chemical incident consequence management. Important activities are mapped to each incident management phase. Additionally, the Community Lifelines concept is explained to chart a path to community recovery through effective incident response.

Hazardous Chemicals and Their Characteristics

Identifies the various types (e.g., chemical warfare agents, toxic industrial chemicals, etc.) and characteristics (e.g., the persistence of the chemical hazards and reactivity with other substances) of hazardous chemicals to help inform both immediate response and longer-term remediation and re-occupancy decisions.

Principles of Risk Assessment for Hazardous Chemicals

Provides information on various risk assessment methods and their relationship to risk management in the context of a hazardous chemical incident. The information provided in this section can be used to support various aspects of the planning and decision-making process.

Key Elements in Clearance Decision-Making

Presents points of consideration for each of the key activities required for successful characterization, remediation, and re-use/re-occupation of areas/sites impacted by a large-scale chemical incident, as well as references that provide further scientific or expert guidance.

Additionally, substantial references and background information are provided in the appendices. Appendix A discusses available hazardous chemical-specific exposure guidelines (environmental health-based levels) and factors to consider when selecting appropriate types of values to apply at each stage of an incident (e.g., emergency response, remediation activities, establishing remediation goals, and making clearance decisions). Appendix B presents example scenarios and case studies based on real-world incidents and major exercise events.