

NFPA 472

Standard for Competence of Responders to Hazardous Materials/Weapons of Mass Destruction Incidents

National Fire Protection Association (NFPA) 472 consists of 18 chapters and eight indexes.

While the Moving Ahead for Progress in the 21st Century Act (or, MAP-21) signed into law in July 2012 reiterated the requirement for HMEP Grant-funded training to meet the applicable standards in NFPA 472, grant recipients must also be familiar with the appropriate sections of 29CFR1910.120 and 49CFR 311, relative to their impact on the content of the training curriculum for the public sector.

A synopsis of NFPA 472 follows; it's recommended you familiarize yourself with all chapters of the standard relevant to your grant request. *Note that all references to WMD response have been removed from this document; we're concerned solely with response to hazmat incidents in transportation.*

Chapter 1 Administration

1.1.1 This standard shall identify the minimum levels of competence required by responders to emergencies involving hazardous materials/weapons of mass destruction (WMD).

1.2.1 The purpose of this standard shall be to specify minimum competencies required for those who respond to hazardous materials incidents and necessary for a risk-based response to these incidents.

Chapter 4 Competencies for Awareness Level Personnel (pg 472-13)

4.1 General

4.1.1 Introduction

4.1.2 Goal

4.2 Competencies – Analyzing the Incident

4.2.1 Detecting the Presence of Hazardous Materials

4.2.2 Surveying Hazardous Materials

4.2.3 Collecting Hazard Information

4.3 Competencies – Planning the Response (Reserved)

No competencies are currently required at this level

4.4 Competencies – Implementing the Planned Response

4.4.1 Initiating Protective Action

4.4.2 Initiating the Notification Process

4.5 Competencies – Evaluating Progress (Reserved)

No competencies are currently required at this level

4.6 Competencies – Terminating the Incident (Reserved)

No competencies are currently required at this level

Chapter 5 Core Competencies for Operations Level Responders

(pg 472-15)

5.1 General

5.1.1 Introduction

5.1.2 Goal

5.2 Core Competencies – Analyzing the Incident

5.2.1 Surveying Hazardous Materials/WMD Incidents

5.2.2 Collecting Hazard and Response Information

5.2.3 Predicting the Likely Behavior of a Material and Its Container

5.2.4 Estimating Potential Harm

5.3 Core Competencies – Planning the Response

5.3.1 Describing Response Objectives

5.3.2 Identifying Action Options

5.3.3 Determining Suitability of Personal Protective Equipment

5.3.4 Identifying Decontamination Issues

5.4 Core Competencies – Implementing the Planned Response

- 5.4.1 Establishing Scene Control
- 5.4.2 Preserving Evidence
- 5.4.3 Initiating the Incident Command System
- 5.4.4 Using Personal Protective Equipment

5.5 Core Competencies – Evaluating Progress

- 5.5.1 Evaluating the Status of Planned Response
- 5.5.2 Communicating the Status of Planned Response

5.6 Competencies – Terminating the Incident (Reserved)

No competencies are currently required at this level

Chapter 6 Competencies for Operations Level Responders Assigned Mission-Specific Responsibilities (pg 472-19)

- 6.1 General
- 6.2 Mission-Specific Competencies: Personal Protective Equipment (pg 472-20)
- 6.3 Mission-Specific Competencies: Mass Decontamination (pg 472-21)
- 6.4 Mission-Specific Competencies: Technical Decontamination (pg 472-22)
- 6.5 Mission-Specific Competencies: Evidence Preservation and Sampling (pg 472-23)
- 6.6 Mission-Specific Competencies: Product Control (pg 472-25)
- 6.7 Mission-Specific Competencies: Air Monitoring and Sampling (pg 472-26)
- 6.8 Mission-Specific Competencies: Victim Rescue and Recovery (pg 472-27)

NOTE: Paragraphs 6.9 and 6.10 deal with WMD/terrorism type events

Chapter 7 Competencies for Hazardous Materials Technicians (pg 472-31)

- 7.1 General
 - 7.1.1 Introduction
 - 7.1.2 Goal

7.2 Competencies – Analyzing the Incident

7.2.1 Surveying Hazardous Materials/WMD Incidents

7.2.2 Collecting and Interpreting Hazard and Response Information

7.2.3 Describing the Condition of the Container Involved in the Incident

7.2.4 Predicting Likely Behavior of Materials and Their Containers Where Multiple Materials Are Involved

7.2.5 Estimating the Likely Size of an Endangered Area

7.3 Competencies – Planning the Response

7.3.1 Identifying Response Objectives

7.3.2 Identifying the Potential Response Options

7.3.3 Selecting Personal Protective Equipment

7.3.4 Selecting Decontamination Procedures

7.3.5 Developing a Plan of Action

7.4 Competencies – Implementing the Planned Response

7.4.1 Performing Incident Command Duties

7.4.2 Using Protective Clothing and Respiratory Protection

7.4.3 Performing Control Functions Identified in Incident Action Plan

7.4.4 Given (various) cargo tanks... identify the common methods for product transfer...

7.4.5 Performing Decontamination Operations Identified in the Incident Action Plan

7.5 Competencies – Evaluating Progress

7.5.1 Evaluating the Effectiveness of the Control Functions

7.5.2 Evaluating the Effectiveness of the Decontamination Process

7.6 Competencies – Terminating the Incident

7.6.1 Assisting in the Debriefing

7.6.2 Assisting in the Incident Critique

7.6.3 Reporting and Documenting the Incident

Chapter 8 Competencies for Incident Commanders (pg 472-38)

8.1 General

8.1.1 Introduction

8.1.2 General

8.2 Competencies – Analyzing the Incident

8.2.1 Collecting and Interpreting Hazard and Response Information

8.2.2 Estimating Potential Outcomes

8.3 Competencies – Planning the Response

8.3.1 Identifying Response Objectives

8.3.2 Identifying the Potential Response Options

8.3.3 Approving the Level of Personal Protective Equipment

8.3.4 Developing and Incident Action Plan

8.4 Competencies – Implementing the Planned Response

8.4.1 Implementing an Incident Command System

8.4.2 Directing Resources (Private and Governmental)

8.5 Competencies – Evaluating Progress

8.5.1 Evaluating Progress of the Incident Action Plan

8.5.2 Transferring Command and Control Both During the Response Phase and the Post-Response Phase

8.6 Competencies – Terminating the Incident

8.6.1 Terminating Response Operations

8.6.2 Conducting a Debriefing

8.6.3 Conducting a Critique

8.6.4 Reporting and Documenting the Hazardous Materials/WMD Incident

Chapter 9 Competencies for Specialist Employees (pg 472-42)

9.1 General

9.1.1 Introduction

9.2 Specialist Employee C

9.2.1 General

9.2.2 Competencies – Analyzing the Incident

9.2.3 Competencies – Planning the Response

9.3 Specialist Employee B

9.3.1 General

9.3.2 Competencies – Analyzing the Incident

9.3.3 Competencies – Planning the Response

9.3.4 Competencies – Implementing the Planned Response

9.3.5 Competencies – Evaluating Progress

9.4 Specialist Employee A

9.4.1 General

9.4.2 Analyzing, Planning, Implementing and Evaluating

Chapter 10 Competencies for Hazardous Materials Officers (pg 472-47)

10.1 General

10.1.1 Introduction

10.1.2 Goal

10.2 Competencies – Analyzing the Incident

10.3 Competencies – Planning the Response

10.3.1 Given a scenario...identify the response objectives (defensive, offensive, nonintervention) for each incident

10.3.2 Given a scenario...identify the potential response options (defensive, offensive, nonintervention) for each incident

10.3.3 Selecting the Level of Personal Protective Equipment

10.3.4 Developing a Plan of Action

10.4 Competencies – Implementing the Planned Response

10.4.1 Implementing the Functions in the Incident Management System

10.4.2 Directing Resources (Private and Governmental)

10.4.3 Providing a Focal Point for Information Transfer to Media and Elected Officials

10.5 Competencies – Evaluating Progress

See Text on page 472-48

10.6 Competencies - Terminating the Incident

10.6.1 Terminating the Emergency Phase of the Incident

10.6.2 Conducting a Debriefing

10.6.3 Conducting a Critique

10.6.4 Reporting and Documenting the Incident

Chapter 11 Competencies for Hazardous Materials Safety Officers (pg 472-49)

11.1 General

11.1.1 Introduction

11.1.2 Goal

11.2 Competencies – Analyzing the Incident

11.2.1 Determining the Magnitude of the Problem in Terms of Safety

11.3 Competencies – Planning the Response

11.3.1 Identifying the Safety Precautions for Potential Response Options

11.3.2 Providing Recommendations Regarding Safety Considerations

11.3.3 Assisting in the Development of a Site Safety and Control Plan for Inclusion in the Incident Action Plan

11.3.4 Providing Recommendations Regarding Safety and Reviewing the Incident Action Plan

11.3.5 Reviewing Selection of Personal Protective Equipment

11.3.6 Reviewing the Proposed Decontamination Procedures

11.3.7 Ensuring Provision of Emergency Medical Services

11.4 Competencies – Implementing the Planned Response

11.4.1 Performing the Duties of the Hazardous Materials Safety Officer

11.4.2 Monitoring Safety of Response Personnel

11.4.3 Conducting Safety Briefings

11.4.4 Implementing and Enforcing the Site Safety and Control Plan

11.4.5 Maintaining Communications

11.4.6 Monitoring Status Reports

11.4.7 Implementing Exposure Monitoring

11.4.8 Verifying Exposure Monitoring

11.5 Competencies – Evaluating Progress

11.5.1 Identifying Deviations from Safety Considerations or Other Dangerous Situations

11.5.2 Taking Corrective Actions

11.6 Competencies – Terminating the Incident

11.6.1 Reporting and Documenting the Incident

11.6.2 Debriefing of Hazardous Materials Branch/Group Personnel

11.6.3 Assisting in the Incident Critique