

# NEW JERSEY HAZMAT EMERGENCY RESPONSE COURSE



STUDENT GUIDE FOR COURSE NUMBER: 06085

## LEVEL 1 - FIRST RESPONDER DOMESTIC PREPAREDNESS CBRNE AWARENESS

*PRESENTED THROUGH:*

NEW JERSEY STATE POLICE-HOMELAND SECURITY BRANCH  
SPECIAL OPERATIONS SECTION, TECHNICAL RESPONSE BUREAU  
HAZARDOUS MATERIALS RESPONSE UNIT (HMRU)

BENCHMARKED FROM THE DEPARTMENT OF DEFENSE  
"DOMESTIC PREPAREDNESS TRAINING PROGRAM"



4<sup>th</sup> Edition

0404



# CBRNE; Awareness

## Course Introduction

**Module 1:** Course Introduction (Awareness Training - course # 06085)

**Training Objectives:**

At the conclusion of this course, students will be able to demonstrate a knowledge of the role of Level 1 trained responders in dealing with a Nuclear, Biological, Chemical agent attack.

**Student Materials:**

Awareness Student Guide

### CBRNE; Awareness

Module 1	Introduction	1
Module 2	The CBRNE Terrorist Threat	8
Module 3	Chemical Warfare Agents	18
Module 4	Biological Warfare Agents	33
Module 5	Radiological/Nuclear Materials	45
Module 6	Recognizing Dissemination Devices	50
Module 7	Responder Actions	55
	Glossary	65
	Appendices	97

Although the information set forth in this program is presented in good faith and believed to be correct, persons or agencies using this information must make their own determination as to its suitability for their purposes. In no event are the participating organizations and the developing Technical committee responsible for damages of any nature resulting from the use of this information. This program is intended as awareness training only.

**This document may be reproduced by law enforcement, fire, rescue, EMS or hospital personnel. Reproduction for commercial use must receive written authorization of the New Jersey State Police Homeland Security, Special Operations, Technical Response Bureau, Hazardous Materials Response Unit.**

**Overview**

The course will concentrate on six blocks of instruction:

- a. "The Threat" will focus on the danger posed by terrorists.
- b. "An Introduction to Chemical Agents" will provide an overview of those chemical compounds that have been weaponized by various nations for the purpose of causing death on the battlefield. The signs, symptoms, and characteristics of the agents will be highlighted.
- c. "An Introduction to Biological Agents" will focus on those biological agents that have been weaponized, and will address their signs, symptoms, and characteristics.
- d. "An Introduction to Radiological Material" will address the characteristics of radioactive material and discuss the signs and symptoms of radiological poisoning.
- e. "Recognizing Dissemination Devices" will discuss the types of devices that one might see used for the employment of weapons of mass destruction. Ideal targets for each type of weapon, size of the device, and advantages/disadvantages of each will be addressed.
- f. "Responder Actions" will focus on those defensive actions a responder, at the awareness level should take if CBRNE were to be employed.

# **Domestic Preparedness; Awareness The CBRNE Terrorism Threat**

## **Module 2: The CBRNE Terrorism Threat**

### **Training Objectives:**

Students will be able to:

1. List several recent terrorist incidents involving CBRNE material.
2. Describe some reasons terrorists might consider using CBRNE materials.
3. List sources and hazards of CBRNE weapons.
4. Identify likely targets and indicators of a terrorist CBRNE attack.
5. Describe potential outcomes of a terrorist CBRNE attack.

# Domestic Preparedness; Awareness Chemical Agents

## Module 3: Chemical Agents

### Training Objectives:

Students will be able to:

1. Demonstrate an ability to recognize signs and symptoms of chemical agent exposure.
2. Describe how to protect oneself against chemical agents.
3. Demonstrate a knowledge of terms, symbols, definitions and characteristics of chemical agents.

**Review Questions:**

Read the agents or characteristics in the numbered left column and match them with the lettered words or statement in the right column.

- |                                 |   |
|---------------------------------|---|
| 1. Evaporates quickly           | A. Hydrogen cyanide                                 |
| 2. Evaporates slowly            | B. Reddish skin                                     |
| 3. Hydrogen cyanide (AC)        | C. Mustard  |
| 4. Blood agent name             | D. Respiratory and skin hazard                      |
| 5. Nerve agent name             | E. No immediate pain, blisters appear in 6-12 hours |
| 6. Blister agent name           | F. Non-persistent                                   |
| 7. Happens with L and CX        | G. Pinpointing of eyes                              |
| 8. All agents                   | H. Lighter than air                                 |
| 9. Nerve and blister agents     | I. Inhalation threat                                |
| 10. Nerve agent symptoms        | J. Settles or lingers in low areas                  |
| 11. Symptom of blood agent      | K. Persistent                                       |
| 12. All agents heavier than air | L. Immediate pain on contact                        |
| 13. Symptom of mustard agent    | M. Sarin  |

**Key Points**

These agents were deliberately developed to cause injury or death to individuals and they are very toxic, however, they can be detected, they can be protected against, victims can be treated and they can be decontaminated.

# **Domestic Preparedness; Awareness Biological Agents**

## **Module 4: Biological Agents**

### **Training Objectives:**

Students will be able to:

1. Describe “universal precautions” as they apply to a biological terrorism incident.
2. Describe the hazards and indicators of a biological incident.

# **Domestic Preparedness; Awareness Radiological/Nuclear Materials**

## **Module 5: Nuclear Materials**

### **Training Objectives:**

Students will be able to:

1. Demonstrate knowledge of self-protection techniques.
2. Identify the types of radiation and their associated hazards.
3. Demonstrate knowledge of terms associated with nuclear radiation.

# **Domestic Preparedness; Awareness Agent Dissemination Devices**

## **Module 6: Recognizing Dissemination Devices**

### **Training Objectives:**

Students will be able to:

1. Identify a potential CBRNE agent dissemination device.
2. Categorize a dissemination device as to type and potential impact.
3. Identify potential targets against which a terrorist might consider employing CBRNE agents.

**Key Points**

Dissemination devices can take many forms and are sometimes difficult to recognize

Potential targets will generally be enclosed spaces, critical facilities, or specific facilities of interest to terrorists

Responder should not touch, cover or move a suspected device and make proper notification

# **Domestic Preparedness; Awareness Responder Actions**

## **Module 7: Responder Actions**

### **Training Objectives:**

Students will be able to:

1. Identify actions appropriate to the awareness level of training and equipment in response to an incident involving CBRNE agents.
2. Describe the considerations that will affect decision making in an CBRNE incident vs. a hazmat incident.
3. Describe the methods of self-decontamination at an CBRNE incident.