

## Chapter 31 -IFPO- CPO

An All-Hazards Approach to Hazardous  
Materials

# Purpose

- ▶ A security professionals ability to recognize an incident involving hazardous materials(Hazmat) is critical. Security must know how to identify the presence of Hazmat and know what their role is within the response plan.

# Hazardous Material

- ▶ A hazardous material is anything that has the potential to cause harm to people or the environment (plants, animals, and waterways) if released in an uncontrolled manner.
- ▶ Classification system includes 23 classes and divisions
- ▶ Liquids of any sort, including water, when released at the wrong time or the wrong place, can create a life-threatening or facility-threatening situation.

# Seven Immediate Threats

- ▶ Explosives
- ▶ Mass explosion hazards
- ▶ Projection hazards
- ▶ Fire or incendiary hazard
- ▶ Dangerous when wet materials
- ▶ Toxic inhalation hazards
- ▶ High level radioactive materials

# Role of the Protection Officer

- ▶ Education and training is the first line of defense.
- ▶ The protection officer must be familiar with all hazardous materials found within his/her area of operations.
- ▶ Weather-related incidents and hazardous materials incidents represent the majority of recurring serious incidents in the workplace.
- ▶ The protection officer should be aware of evolving technologies such as:
  - ▶ Ethanol-enhanced fuels
  - ▶ Lithium ion batteries
  - ▶ Compact fluorescent lights (CFLs)
  - ▶ Pressurized fire extinguishers
  - ▶ Aerosol lubricants and deicing materials

# Role of the Protection Officer

Examples:

## **Compact fluorescent lights (CFL's):**

- ▶ CFL's contain mercury.
- ▶ Illegal to dispose in trash bins.
- ▶ A single broken CFL bulb is not cause for alarm. However is officially an "event" because mercury is released

## **Fire Extinguishers:**

- ▶ Fire extinguishers are classified a hazardous material because the heat generated from a fire can cause them to explode.

# Hazardous Materials Incidents

- ▶ A protection officer's primary objective must always be to survive so that they can continue to provide that protection to the general public.
- ▶ The protection officer must understand how to evaluate and take the action that will bring the correct resources to bear for the many different types of incidents that can occur.
- ▶ Rule number one with hazardous materials incidents is to ***always*** approach from upwind, uphill, or upstream.
- ▶ Know how to evaluate and take actions.
  - ▶ Self protection
  - ▶ Approach from upwind, uphill, or upstream
  - ▶ Know where to find information on the product
  - ▶ Evacuation
  - ▶ How to contain
- ▶ For protection officers, the first step is self-protection, the second is material identification, the third is to evacuate as necessary and activate the appropriate contingency or response plans, and the last step in most circumstances is to provide containment.
- ▶ Even for the smallest of spills involving the most benign chemicals, no action should be taken until the material has been positively identified and appropriate actions confirmed.

# Tools and Resources

- ▶ Small releases of less deadly materials can be handled by anyone with the right formal training, basic knowledge of hazardous materials response, an understanding of the risks and protocols, and access to the material safety data sheets (MSDS) to properly identify risks associated with each specific incident or material.
- ▶ The most universally accepted method to identify and classify hazardous materials comes from the world of transportation.
- ▶ DOT guideline 49 CFR parts 100 to 180 “Hazardous Materials Regulations”(HMR)
- ▶ **Most comprehensive book on hazards**
  - ▶ Emergency Response Guide 2016 ERG
  - ▶ National Incident Management System (NIMS)
  - ▶ Incident Command Systems (ICS)
  - ▶ NFPA-Diamond Designation
    - ▶ 4 colors
    - ▶ Blue, yellow, red and white
  - ▶ What materials are contained within the structure



# Tools and Resources

- ▶ One of the first things a professional should do in a new job, or for that matter in a new location, is to identify all the hazardous materials that enter, are used in, or leave, the facility.
- ▶ A security professional should review all the MSDS information for each worksite under their protection and know exactly where to find that information in case an incident occurs.
- ▶ There are going to be times when the most appropriate action is to turn and run!
- ▶ Material Safety Data Sheets (MSDS) properly identify risk associated with each specific incident or material.

# Initial Response

► The basic steps to follow

1. Identify the substance released
2. Determine the quantity released
3. Activate appropriate contingency plan
4. Determine extent of damage
5. Perform site security

Always stay uphill until the substance is identified.

# Identify the Substance Released

- ▶ **Always stay upwind, uphill, and/or upstream of any hazardous materials release until able to identify it.**
- ▶ One way to identify material at the workplace is to ask the person who was using it.
- ▶ MSDS, ERG, labels, etc.
- ▶ Labels are the least accurate
- ▶ Identifying the four-digit number unique to a spilled material is always the best and most accurate way to determine appropriate response actions.

# Diamond Designation

- ▶ Diamond Designation is in four colors and conveys to responders the nature and severity of materials contained in buildings.

## Determine the Quantity

- ▶ After identifying the substance, it is important to determine how much of it has been released.
- ▶ Never go near the area unless properly trained in the required level of PPE; this prevents the professional from inadvertently becoming another victim of the incident.

## Activate the Appropriate Contingency Plan

- ▶ The protection professional should be familiar with the organization's HAZMAT response plan.
- ▶ If no plan in place, notify the public agency involved in handling HAZMAT incidents for the area. Usually this will be the local fire department. When they arrive on the scene, they will take command and control of the situation.

# Determine the Extent of Damage

- ▶ After the material and amount released have been determined, it is necessary to evaluate the extent of any damage that may have been caused.
- ▶ It is extremely important to keep clear of the area and to keep others clear until this determination has been made.
- ▶ Any injured people should be treated by qualified first aid or medical personnel as soon as they are safely removed from the contaminated area.

## Perform Site Security

- ▶ Site security simply means keeping onlookers and bystanders out of the contaminated area.
- ▶ Media:
  - ▶ They take risks just to get a story
  - ▶ They sneak past security or cross barricades putting themselves and others at harm.
  - ▶ They interfere with the operation
  - ▶ Fail to follow safety precautions
  - ▶ They risk becoming exposed/victims
  - ▶ They increase the workload