Module 3 - Unit 7
Mission Specific Competencies: Victim Rescue and Recovery

Scope of Unit
The purpose of this lesson is to train the operations level responder with a mission specific competency of Victim Rescue and Recovery

Learning Objectives
At the end of this unit of training each student will demonstrate the ability to plan and implement the rescue of viable victims from a hazardous material/WMD environment.

Student Performance Objectives
- Understand hazard and risk assessment principles
- Determine the feasibility of conducting rescue and recovery operations
- Know safety procedures, tactical guidelines and incident response considerations to effect a rescue within capabilities of personnel and PPE
- Given a simulated hazardous material incident that includes a victim the student shall chose the best level of available PPE, assess the hazards and benefits of a victim rescue and demonstrate an appropriate rescue technique

Resource List
- Manual

References
- The Ohio HazMat/WMD Technician Manual
- NFPA 472

Unit Agenda 3-hour segment
- 15 minutes - Course introduction and mission specific overview
- 60 minutes – Lecture and unit test
- 105 minutes - Hands on practice AHJ PPE and rescue equipment
<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
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<tbody>
<tr>
<td><strong>6.8.1.1.2</strong></td>
<td>Meet all awareness, operations core competencies and all mission-specific PPE competencies</td>
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<td><strong>6.8.1.1.3</strong></td>
<td>Operate under HazMat technician, allied professional or SOP</td>
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<td><strong>6.8.1.1.4</strong></td>
<td>Additional training as necessary for the AHJ</td>
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<td><strong>6.8.1.2</strong></td>
<td><strong>Goal</strong></td>
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<tr>
<td><strong>6.8.1.2.1</strong></td>
<td>Knowledge and skills to perform safely and effectively</td>
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<td><strong>6.8.1.2.2</strong></td>
<td>Be able to perform the following tasks</td>
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<td></td>
<td>1) Plan a response within capabilities and available PPE</td>
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<td>2) Implement the planned response</td>
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<tr>
<td><strong>6.8.2</strong></td>
<td><strong>Analyzing the Incident (Reserved)</strong></td>
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<tr>
<td><strong>6.8.3</strong></td>
<td><strong>Planning the Response</strong></td>
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<tr>
<td><strong>6.8.3.1</strong></td>
<td>Determine the feasibility of conducting rescue and recovery and perform the following tasks</td>
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<td></td>
<td>1) Determine the feasibility of conducting rescue and recovery</td>
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<td>2) Know safety procedures, tactical guidelines and incident response considerations to effect a rescue associated with each of the following</td>
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<td></td>
<td>a) Line-of-sight ambulatory victims</td>
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<td>b) Line-of-sight non-ambulatory victims</td>
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<td>c) Non-line-of-sight ambulatory victims</td>
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<td></td>
<td>d) Non-line-of-sight non-ambulatory victims</td>
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<td></td>
<td>e) Victim rescue operations versus victim recovery operations</td>
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<td></td>
<td>3) Determine if operations are within capabilities of personnel and PPE</td>
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<td></td>
<td>4) Implement within the ICS</td>
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<tr>
<td><strong>6.8.3.2</strong></td>
<td>Select appropriate PPE</td>
</tr>
<tr>
<td><strong>6.8.4</strong></td>
<td><strong>Implementing the Planned Response</strong></td>
</tr>
<tr>
<td><strong>6.8.4.1</strong></td>
<td>Perform the following tasks</td>
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<td>1) Identify different team positions and describe their main functions</td>
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<td>2) Select specialized rescue equipment of the AHJ</td>
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<td>3) Demonstrate safe and effective methods</td>
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<td>4) Triage victims</td>
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<td></td>
<td>5) Know procedures for decontamination of victims</td>
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<tr>
<td><strong>6.8.5</strong></td>
<td><strong>Evaluating Progress (Reserved)</strong></td>
</tr>
<tr>
<td><strong>6.8.6</strong></td>
<td><strong>Terminating the Incident (Reserved)</strong></td>
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Module 3 - Unit 7
Mission Specific Competencies:
Victim Rescue and Recovery

Introduction

For years HazMat training taught us to stop hundreds of yards from an incident and use binoculars to survey the scene, next we were to wait until HazMat crews arrived before we ever approached the incident but what if while viewing through those binoculars we were to see a victim? What if it was a young mother and her child crying for help from a vehicle that had crashed into a tanker truck? Would we wait until HazMat arrived to help her out?

In the Hazard and Risk Assessment section of Module 1 we discussed victim rescue as part of the hazard and risk assessment process. We taught that full firefighting protective clothing would be very good protection for rescue as long as victims were still alive. In this unit we will go into more detail on rescuing multiple victims from mass casualty incidents.

This mission specific competency has a prerequisite that the responder already has a mission specific in Protective Clothing. This will allow the use of non-traditional protective ensembles to be worn by the first responder.

Rescue Triage

Triage is trying to help as many people as possible. Unlike medical triage, rescue triage will have some slightly different priorities. In medical triage we focus on getting those that are alive but will shortly die if they do not receive hospital care transported to the hospital as soon as possible. They are priority one. Victims that are injured but who will survive for hours even without care are our second priority and the walking wounded are our last priority. Medical triage will usually take place in an area that has been set up for that purpose. Medical triage should only be done once the victims are decontaminated.
In rescue triage our main goal is to remove victims from a hazardous location to a safe area where emergency decontamination and first aid can be performed. The number one priority for rescue triage is to remove the greatest number with the least amount of personnel, thus anyone that can leave the area without assistance by quickly announcing to the crowd that if they can leave the area to do so are the first priority to be rescued. We should also request that if a victim nearby needs a little assistance to please help that individual out of the area. A safe area for relocation should be identified. Once out of the area only those that are truly in need of rescue will remain.

The objective with triage is to help as many as possible. With that in mind our next priority will be those who can be removed by the help of just one rescuer; next we would focus on those that would need stretchers and 2 or more rescuers to carry. Those requiring a great deal of time, rescue equipment and rescuers would be our last priority.

**Hazard and Risk Assessment**

Remember all activity on any type of emergency should be given a hazard and risk assessment. Basically put “what are the risks and what are the benefits of any action” Obviously rescue of a victim is the highest benefit or result of any of our actions. It is the greatest reward and worthy of our greatest sacrifice. Always keep in mind that any reported victim may have already expired and thus our efforts would be in vein.

The principles of Hazard and Risk Assessment are based on the three priorities of incident command; life safety, protect property and protect the environment.

Under life safety, there are four groups of people that need to be protected. You are number 1. No one can protect you better than you. Always remember to wear the highest level of protection available to you. Second is your Fellow Responders, watch each other’s back while working as a team. Third is the General Public, If someone is not involved then keep them from becoming involved. Fourth is The Victim.

This NFPA mission specific competency recognizes that victims can be ambulatory or non-ambulatory; in your line-of-sight upon arrival to the scene or non-line-of-sight; or they may not be victims at all but bodies that need to be recovered. We shall look at each one of these variances.

**Line-of-sight ambulatory victims**

By far the easiest victims to rescue will be the ones that can rescue themselves. Line-of-sight ambulatory victims are showing you that they are alive. If they are surviving with no PPE on then your PPE properly worn will certainly protect you for this type of rescue.
Many times these victims will just need to be told where to go for decontamination and treatment. Bullhorns and PA systems can assist in giving out these instructions. Often these victims will even be able to assist some of the non-ambulatory victims to safety. All victims should be assembled at a safe area for decon and triage. Emergency decon can be established in a safe area for those able to leave the scene. Some with hearing or visual disabilities can be partnered together with seeing or hearing victims.

**Line-of-sight non-ambulatory victims**

Line-of-site victims that can not leave the scene on their own will need to be quickly triaged as to the reasons, injuries received and chances of survival. If contaminated then emergency decon should be provided as soon as possible.

Trapped victims will need to be freed from their entrapment; those with physical hazards will need to be loaded on stretchers for removal; those with chemical injuries are in need of emergency decon quickly to remove the substance that is killing them.

Once again if victims are alive with-out any PPE then your PPE will be sufficient for their rescue, If victims are dying from the exposure to the chemical (not from physical, thermal or asphyxiation injuries) then higher levels of PPE may be needed for continued or long term rescues.

**Non-line-of-sight ambulatory victims**

The problem with any non-line-of-sight rescue is the obvious “unknown” factor. This unknown factor will require an initial recon for information. Initial recon must be done in groups of two or more with back-up teams available. Initial recon can be done by having the area investigated by a team in the available PPE while a back-up team stands-by in a safe staging area. Once in the area the initial recon team can determine the amount and condition of the victims and how many rescuers will be needed. Once this information is known then the plan becomes a line-of-site rescue.

**Non-line-of-sight non-ambulatory victims**

Any hazardous material incident occurring inside an enclosed building has a higher potential hazard then one taking place in an outside or open area. In the event of a non-line-of-sight rescue inside of a building the initial recon team should considered taking air monitoring equipment with them. The rescue plan may need to also address PPE for the removal of the victim. In the Graniteville North Carolina train derailment/chlorine incident victims were calling and were
trapped inside of a warehouse that was surrounded by a chlorine vapor cloud. The removal of such a victim would require a rescue plan that included an SCBA for the victim.

**Victim rescue operations versus victim recovery operations**

Once a victim has expired the rescue becomes a recovery. At this point all activities need to be reassessed for their risk versus benefit. Body recovery is not an emergency and can be completed once higher levels of PPE are available on the scene. A more detailed plan can be established as to the best way to remove the victims.

**Rescue Equipment**

There is a variety of equipment available to assist with victim rescue. Specialized rescue teams are trained for building collapses, vehicle entrapment, confined space rescues, etc. each type of rescue has specific tools and equipment designed for its own specific problem. We will only discuss equipment used for quick removal of victims from a hazardous material/WMD contamination event.

**Medic Cots:** Regular EMS vehicle medic cots can be utilized to remove victims. 1 to 2 rescuers per victim are needed.

**Stretchers:** folding military type stretchers can be used by 2 or more rescuers to carry victims. There folding ability assists with storage.

**Construction Fence:** this is a simple source for an improvised rescue cot. Heavy grade fence can be cut into 7’ sections. This will allow 4 or more rescuers to carry a victim into the decon area and easily roll the victim from side to side to assist with the decon process. The grid style will not hold contaminants next to a victim’s body. A 100’ roll of 4’ wide fence will easily produce 14 “stretchers”.

**Backboards:** two to four rescuers per victim. Straps will need to be applied before moving the victim.

**Stokes Basket:** two to four rescuers per victim. Some baskets may hold a liquid contaminate close to the skin so be cautious.

**SKED Rescue Devices:** these are fancy “sleds” that can be used to remove victims. Once the victim is in place and secured, typically 1 rescuer can remove the victim from the area.
Rope Haul Systems: can be used with the SKEDs and backboards to slide victims out of the hot zone unload the victim and then returned the SKED back into the hot zone for the next victim.

The Operations level responder with a rescue mission specific competency must be familiar with the equipment available to the AHJ. They must operate under AHJ SOPs and an Incident Command System. They will need to coordinate their activity to those with a mission of mass decontamination.
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Review Quiz

1) If all four situations existed upon your arrival at a HazMat incident, which one would be the first priority for removal from the contaminated area?
   a. The driver pinned in the cab of the truck
   b. 5 children crying and wondering around the leaking tanker
   c. One person heavily contaminated by the product
   d. The school bus driver obviously dead

2) Of the above which would be the second priority?
   a. The driver pinned in the cab of the truck
   b. 5 children crying and wondering around the leaking tanker
   c. One person heavily contaminated by the product
   d. The school bus driver obviously dead

3) Which of the following is most consuming as far as the amount of rescuers needed to remove 1 victim?
   a. Medic cot
   b. Folding cot
   c. Construction fence
   d. Stokes basket

4) Who gets the number one priority for life safety at any incident?
   a. You
   b. The victim
   c. The Public
   d. Your fellow responders

5) Which of the following is the best means of protection for you and your fellow responders on any HazMat/WMD incident?
   a. Wear your PPE
   b. Wear your PPE
   c. Wear your PPE
   d. All of the above
6) A victim that is obviously dead from a crushing injury but is contaminated with product is an example of:
   a. Line-of-sight, ambulatory victim
   b. non-line-of-sight, ambulatory victim
   c. non-line-of-sight, non-ambulatory victim
   d. A body recovery

7) The report of a victim inside a warehouse trapped by a tote in the rear of a trailer is an example of:
   a. Line-of-sight, ambulatory victim
   b. non-line-of-sight, ambulatory victim
   c. non-line-of-sight, non-ambulatory victim
   d. A body recovery

8) The report of a victim on the second floor unable to leave the restroom because of strong chemical vapors outside of the restroom is an example of:
   a. Line-of-sight, ambulatory victim
   b. non-line-of-sight, ambulatory victim
   c. non-line-of-sight, non-ambulatory victim
   d. A body recovery

9) Rescue triage utilizes the same principles as EMS triage.
   a. True, both systems goals are to save as many as possible
   d. False, the two system are totally different.

10) Rescue triage utilizes the same priorities EMS triage.
    a. True, severely injured must always be removed first.
    b. False, the first priority to leave an area will be different then the first priority to be transported to the hospital.