Course Title: Statewide WMD Response: Trench Rescue Operations

Course Duration: 32 Hours

Program: Technical Rescue Program

Level of Training: Operations


Course Description: The scope of this course is to prepare local responders to operate as a local member of a regional team within the NIMS at a CBRNE (Chemical, Biological, Radiological, Nuclear, or Explosive) WMD Event requiring statewide response that has resulted in the need for a shallow, non-intersecting trench rescue. The Trench Rescue Operations course has been designed in accordance with NFPA 1670 Standard on Operations and Training for Technical Rescue Incidents, 2004 edition. This course pertains to trench rescues involving injured or entrapped persons. The class covers the federal and state regulations, use of specialized equipment for atmospheric monitoring, emergency shoring systems, victim excavation, and employment of rescuer constructed retrieval systems. Special emphasis will be given to rescuer safety and scene evolutions involving various trench rescue problems. Written and practical skills testing will be conducted at the completion of the course.

Course Requirements:
- Attend and participate in 100% of the course.
- Completion of the final exam with a score of at least 70%.
- Complete all practical skills
Course Content:

Module: 1
Title: Introduction

Terminal Learning Objectives:
At the conclusion of this module, the student will explain Trench Operations responsibilities and hazards.

Module: 2
Title: Regulations

Terminal Learning Objectives:
At the conclusion of this module, students will summarize how the regulatory requirements of OSHA 29 CFR 1926 Subpart P dictate trench rescue operations.

Module: 3
Title: Hazards

Terminal Learning Objectives:
At the conclusion of this module, the student will summarize hazards that may be present during trench rescue operations

Module: 4
Title: Protective System

Terminal Learning Objectives:
At the conclusion of this module, the student will explain how protective systems are affected during collapse.

Module: 5
Title: Rescue Shoring

Terminal Learning Objectives:
At the conclusion of this module, the student will properly identify procedures for the selection, utilization, and application of shoring systems.

Module: 6
Title: Trench Rescue Operations

Terminal Learning Objectives:
At the conclusion of this module, the student shall identify the step-by-step process for trench rescue operations.
Module: 7  
Title: Incidents Involving Weapons of Mass Destruction (WMD)

Terminal Learning Objectives:  
At the conclusion of this module, the student will summarize consideration at a WMD incident.

Reference List:

Trench Rescue, Awareness, Operations, Technician  2nd Ed.  
Cecil.V. “Buddy” Martinette Jr., Jones & Bartlett, 2008


Rescue Technician Professional Qualifications, NFPA 1006, 2008 Edition,


OSHA, 29 CFR 1926 Title: Safety and Health Regulations for Construction Subpart - P. Excavation.

Administrative Code: Part 350 Health and Safety, Section 350.280 Adoption of Federal Standards
Class Schedule

Day 1

<table>
<thead>
<tr>
<th>Activity</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>30 minutes</td>
</tr>
<tr>
<td>Regulations</td>
<td>45 minutes</td>
</tr>
<tr>
<td>Hazards</td>
<td>45 minutes</td>
</tr>
<tr>
<td>Protective Systems</td>
<td>1 hour</td>
</tr>
<tr>
<td>LUNCH</td>
<td></td>
</tr>
<tr>
<td>Rescue Shoring</td>
<td>1.5 hours</td>
</tr>
<tr>
<td>Trench Rescue Operations</td>
<td>1.5 hours</td>
</tr>
<tr>
<td>Weapons of Mass Destruction</td>
<td>1 hour</td>
</tr>
<tr>
<td>Table Top Scenario</td>
<td>1 hour</td>
</tr>
</tbody>
</table>

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Day 2 (4 Squads/4 Stations)

<table>
<thead>
<tr>
<th>Drill: Rescue Knots, Patient Packaging, &amp; A Frame</th>
<th>2 hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drill: Hydraulic Shores/Monitors/Ventilation Fans/</td>
<td></td>
</tr>
<tr>
<td>Supporting Utilities/Low &amp; High Pressure Bags/NIMS/FICO</td>
<td></td>
</tr>
<tr>
<td>LUNCH</td>
<td>2 hours</td>
</tr>
<tr>
<td>Drill: Timber &amp; Ellis Jack Shores, Cut Table</td>
<td>2 hours</td>
</tr>
<tr>
<td>Drill: Pneumatic Shores</td>
<td>2 hours</td>
</tr>
</tbody>
</table>

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Day 3-Student Individual Evaluations

<table>
<thead>
<tr>
<th>Drill: 5 sets of panels/uprights with each type of strut - “Live Trench”</th>
<th>4 hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>LUNCH</td>
<td></td>
</tr>
<tr>
<td>Drill: Outside Wales - “Live” Trench</td>
<td>2 hours</td>
</tr>
<tr>
<td>Scenario - “Live” Trench-Students play roles of ICS</td>
<td>2 hours</td>
</tr>
</tbody>
</table>

Course Syllabus

Statewide WMD Response: Trench Rescue Operations
Day 4

Final Exam 1 hour

Final Practical Scenario-“Live Trench” 6 hours

Clean-up 1 hour