



Pennsylvania State Fire Academy

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Minimum Standard for Accreditation (MSA)

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Course Title: Trench Rescue Operations (TRRE)

Length of Course: 16 Hours

Lecture/Lab Breakdown: 8/8

Prerequisites: Introduction to Safety & the Training System

Course Goal: To provide the students with the knowledge and skills necessary for them to safely and effectively participate in a trench rescue evolution.

Description of Course: This course will introduce the student to the knowledges and skills necessary to safely and effectively perform complex rescue operations in collapsed trench excavations. Course work will include practical drills and demonstration in simulated trench excavations.

Description of Methodology to be used: (Brief) The course is equally divided between classroom and field work. In the classroom illustrated lectures, guided discussions, and case history studies will be utilized. In the field several shoring techniques will be demonstrated in practiced. The course will culminate in a mock trench collapse evolution.

Student Equipment/Supply Needs:

Equipment/Audiovisual/Supply requirements: Chalkboard, screen, overhead projector, slide projector, 1/2" VHS VCR, color monitor, practice trench, shoring materials, support materials and equipment.

COURSE OUTLINE (General - Not Detailed)

<u>Time</u>	<u>Content</u>	<u>Instructor Note</u>
DAY 1		
1:00	Overview of trench accidents	
1:00	Collapse types and contributing factors	
1:00	Mechanism of injury	
1:00	Shoring systems	
2:00	Shoring demonstration	
2:00	Basic shoring practice	

continued

**COURSE OUTLINE continued
(General - Not Detailed)**

<u>Time</u>	<u>Content</u>	<u>Instructor Note</u>
DAY 2		
1:00	Hazards associated with trench rescue	
1:00	Rescue procedures and techniques	
1:00	Study of case histories	
1:00	Advanced shoring problems	
2:00	Advanced shoring practice	
2:00	Final evolution	

Competency Evaluation Mechanism (Brief description-attach copy): Skills are evaluated by observation during the final evolution. Knowledge is evaluated by a 20 item multiple choice exam administered at the conclusion of the last session.

Course Objectives (specific): The participant will be able to....

1. describe different types of trench collapse.
2. identify trench accidents other than collapse.
3. discuss various factors contributing to trench collapse.
4. describe 3 basic types of soil and their significance in trench collapse.
5. identify hazards that must be controlled a trench collapse incident.
6. explain the measures and techniques for dealing with said hazards.
7. define certain terms germane to trench rescue operations.
8. discuss different means of pinpointing a victim's location.
9. identify options for protection of victims and rescuers.
10. discuss the danger to rescuer's conducting trench rescue operations.
11. explain the mechanisms of injuries occurring during trench collapses.
12. secure a simple trench with shoring when given the proper equipment and materials.
13. set up an effective system for digging and moving aggregate.
14. properly package and remove a freed victim from a trench.