



Pennsylvania State Fire Academy

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Minimum Standard for Accreditation (MSA)

June 1996

Course Title: Structural Collapse Operations, Level I (SCOA)

Length of Course: 3.5 Hours

Lecture/Lab Breakdown: 3;5/0

Prerequisites: None

Referenced Texts: Rescue Systems I; Rescue 1993, Virginia Beach, VA; Fire Engineering Magazine, Collapse Rescue Series, John O'Connell, Harrisburg, PA; NFPA 1470; Harrisburg Bureau of Fire, Rescue 1, Standard Operating Procedures for Structural Collapse.

Federal Emergency Management Agency: *Urban Search and Rescue Response System, Operational System/Description and Mission Operational Procedures; *Urban Search and Rescue Response System, Rescue Specialist; Training Course, Volumes I, and 11

Course Goal: This course is designed to familiarize students with operations at the scene of a structure collapse so they may be able to function at the initial stages of a structural collapse operation, identify and magnitude hazards, recognize the need for assistance, and perform as an integral part of the overall operation once technical rescue teams are on site.

Description of Course: This course gives the first responder the knowledge necessary to function effectively during the initial stages of a structural collapse incident. Assessing the magnitude of the situation, utilization of available resources, as well as personnel safety are highly stressed. Information necessary for first responders to integrate effectively with specialized collapse rescue teams is also provided.

Description of Methodology to be used: (Brief) Lecture/Discussion

Student Equipment/Supply Needs: Notebook, Pen/Pencil

Equipment/Audiovisual Supply Requirements: Overhead projector, slide projector, viewing screen, chalkboard, VCR, TV, and copies of handouts for students. Note: All handout materials will remain in student's possession at the conclusion of class.

continued

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

<u>Time</u>	<u>Content</u>	<u>Instructor Notes</u>
:05	I. Introduction	
:10	II. Reasons for Collapse	OH
:10	III. Community Vulnerability	OH
:20	IV. Training and Resources	OH
:10	V. Types of Structures	OH/slides
:05	VI. Types of Collapse/Voids	OH
:10	VII. Hazards	OH
:10	VIII. Dealing with Hazards.	OH
:10	IX. 5 Step Process	Discuss
:05	X. Operations	
	A. Size-up	OH
	1. Dispatch	
	2. Approach	
	3. On-Scene	Video
:20	a. IC Site Control	OH
	b. Type of Structure	
	c. Type of Occupancy	
	d. Extent of Collapse	
	e. Six Sided Survey	
	f. Witnesses	
:15	B. Surface Victims	OH/Discuss
	C. Zones & Accountability	OH
	D. Hailing Method	OH
	E. Technical Search	Discuss
	F. Physical Search	OH/Discuss
:10	XI. Operational Considerations	
	A. Victim Determination	OH
	B. Survivability	OH
	C. Resources	OH
:25	XII. Hazard and Structure ID	Chalkboard
	A. Collapse Zone	
	B. Work Zone	
	C. Structure ID	
	D. Structure/Hazard Marking System	
	E. Search Assessment Marking	
:20	XIII. Safety	OH
	A. PPE	
	B. Emergency Signalling	
	C. Accountability	
	D. Site Safety	

continued

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Competency Evaluation Mechanism (Brief description-attach copy): Students are asked questions, and involved in discussions to ensure understanding.

Course Objectives (specific): Upon completion, the student should be able to:

- A. explain the factors involved in community vulnerability assessment.
- B. state the four operational levels as per NFPA 1470
- C. Explain resources utilization and acquisition.
- D. state the four structure types as per NFPA 1470
- E. state the four types of collapse.
- F. state at least 3 hazards associated with collapse, and how to deal with each.
- G. describe the factors that determine size-up of a collapse incident.
- H. state the three zones associated with collapse rescue, and the activities in each.
- I. describe the hailing method.
- J. describe the Hazard ID tape system.
- K. describe the USAR marking system.
- L. describe the USAR emergency signalling system.

**Questions/Comments: Contact: Rita Wessel, Curriculum Specialist: Extension 106
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