



Virginia Department of Fire Programs
Technical Rescue Division
CONFINED SPACE RESCUER – LEVEL I
Chapter 7 (7.1-7.5) NFPA 1006, 2013 edition
CONFINED SPACE OPERATIONS
Chapter 7 (7.3) NFPA 1670, 2009 edition

Section 1 - ADMINISTRATIVE GUIDELINES

1.1 Course Description:

This program meets or exceeds the requirements for NFPA 1006 *Standard for Technical Rescuer Professional Qualifications*, Chapter 7, Level I. The student will learn to perform at the Operations Level as specified in NFPA 1670, *Standard on Operations and Training for Technical Search and Rescue Incidents*, Chapter 7.

This 16-hour program includes classroom and practical training for performance at the operations level. Topics include hazard recognition, atmospheric monitoring, preparation for entry, entering a confined space, packaging the victim and safe removal of victim and all entrants.

1.2 Course Information:

This course is designed to meet or exceed:

NFPA 1006 Standard on Technical Rescuer Professional Qualifications, 2013 edition Chapter 7.1 Confined Space Rescuer – Level I.

NFPA 1670 Standard on Operations and Training for Technical Search and Rescue Incidents 2009 edition; Confined Space Operations, Chapter 7.

NFPA 1983 Standard for Life Safety Rope and Equipment for Emergency Services. 2006 edition.

OSHA 29CFR 1910.146 – Permit Required Confined Space.

OSHA 29CFR 1910.147 – Lockout/Tag-out

1006 Standard

Course Correlation

7.1.1	Conduct monitoring of environment	Session 2
7.1.2	Prepare for entry into confined space	Session 1, Session 3,
7.1.3	Entry into a confined space	Session 1
7.1.4	Package victim for removal	Session 1, Session 3
7.1.5	Remove all entrants from confined space	Session 3



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1670 Standard

Course Correlation

7.3.3 (1)	Size up existing and potential conditions	Session 1, 2
7.3.3 (2)	Protect personnel from hazards	Session 1, 2, 3
7.3.3 (3)	Ensure requirements of team members	Session 1
7.3.3 (4)	Duties of personnel on scene	Session 1, 2, 3
7.3.3 (5)	Conduct monitoring of environment	Session 2
7.3.3 (6)	Perform entry into confined space	Session 1, 2, 3
7.3.3 (7)	Package victim for removal	Session 1, 3
7.3.3 (8)	Remove all entrants from confined space	Session 3

1.3 Logistical Requirements of Host Jurisdiction

- 1) Classroom facilities
 - a. Suitable size, comfortable and meeting the needs to deliver course lecture.
 - b. Adequate and appropriate restroom facilities (to include training grounds).
 - c. Lighting able to be controlled for projector operation.
 - d. Tables and chairs for 24 students.
 - e. LCD Projector and screen, computer with remote mouse.
 - f. Chalkboard, whiteboard, or easel pad with markers or chalks.
- 2) Horizontal and vertical confined spaces suitable for Level I confined space entry as coordinated with the lead instructor. Some examples are:
 - a. 24” to 36” diameter piping
 - b. Holding tank or vessel
 - c. Training simulator
 - d. Underground vault
- 3) All hazards in and around the confined space have been identified, isolated, and controlled.
- 4) (2) Four Function Calibrated atmospheric monitors capable of detecting and continuous monitoring of the following:
 - a. Oxygen deficiency/enrichment
 - b. Flammability
 - c. Hydrogen Sulfide
 - d. Carbon Monoxide
- 5) Adequate air supply for training operations:
 - a. On-site SCBA/SABA refill capabilities, or
 - b. Remote site refill capabilities with 12 additional SCBA cylinders on-site for support.
- 6) Local point of contact with knowledge and authorized access of training sites to be used.
- 7) VDFP Confined Space and “The Worm” trailers. Trailers must be requested by host jurisdiction for non-funded or reimbursable schools. Funded classes will be provided trailers without an additional request being needed.



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1.4 Required Student Materials/Equipment/Uniforms

- 1) PPE
 - a. NFPA rated fire helmet or technical rescue helmet
 - b. Steel toed boots
 - c. Gloves
 - d. Eye protection
 - e. Hearing protection
 - f. Minimum long pants/long sleeve shirt with elbow/knee pads
(Optional long sleeve coveralls with elbow/knee pads or USAR turn out gear)
- 2) One SCBA/face piece (per student) with spare cylinder.

1.5 Course Pre-requisites:

- 1) Students MUST be 18 years of age.
- 2) Current minimum certification of VDFP Fire Attack - Essentials, Firefighter I or verification by student's agency/department satisfying OSHA 1910.134 PPE Respiratory Protection requirements for SCBA.
- 3) Successful completion of Virginia Department of Fire Programs *Introduction to Technical Rescue Module 1 and Module 2* programs.
- 4) Successful completion of Virginia Department of Fire Programs *Rope Rescue Level I (Rope Rescue Operations)* program.
- 5) Students must be a member in good standing with a recognized fire, EMS, or emergency services agency/department to apply to attend.
- 6) Students shall be psychologically, physically, and medically capable to perform assigned duties and functions at technical search and rescue incidents and to perform training exercises in accordance with of NFPA 1500 *Standard on Fire Department Occupational Safety and Health Program*, Chapter 10-Medical and Physical Requirements.

Technical rescue is psychologically and physically demanding work. Students must be capable of lifting heavy loads, working at various elevations and operating in potentially hazardous environments.



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1.6 Course Registrations

- 1) All students must be pre-registered in VDFP's Fire Service Training Records System (FSTRS) before being allowed to participate in the class.
- 2) Students will be required to sign a Virginia Department of Fire Programs *Notice of Acknowledgement* form verifying the students meets the course pre-requisites.
- 3) No unregistered students (walk-ins) will be allowed.
- 4) Class size is limited to 24 students.

1.7 Course Curriculum/Outline

Confined Space Rescuer Level I (Operations Level) 16 hour program

Day 1

Session 1

- 1) Welcome/Introduction/Paperwork 0.5 hour lecture
- 2) Confined space hazards 0.5 hour lecture
- 3) OSHA and Entry permit program 0.5 hour lecture
- 4) Atmospheric Hazards 0.5 hour lecture
- 5) Management of line of sight rescues 2.0 hour lecture
 - Preparation
 - Assessment
 - Pre-Entry
 - Entry & Rescue Operations
 - Termination

Session 2

- 6) Confined Space Equipment Review 4 hours practical skills
 - Personnel Protective Equipment
 - SABA /Air Supply
 - Communication System
 - Atmospheric Monitoring / Ventilation
 - Confined Space Permit
 - Lock Out / Tag Out equipment
 - Tripod
 - Patient Packaging



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Day 2

Session 3

- 7) Confined space entry - Line of Sight 4 hours practical skills
- Horizontal
 - Vertical
 - Victim packaging

Session 4

- 8) Confined space entry – Line of Sight 1.0 hours practical skills
9) Final scenario 2.0 hours practical skills
10) Clean-up and inventory 0.5 hours
11) Evaluations 0.5 hours
Instructor and student closing comments

1.8 Reference Material and Supplemental Information

Confined Space Levels I and II, Browne and Crist, Delmar 2010
Fundamentals of Technical Rescue, Rhea and Rousseau, Jones and Bartlett 2010

1.9 Course Completion Requirements for Students:

- 1) Students are required to attend 100% of the classroom and practical sessions.
- 2) Successful completion of all required skills as indicated in the course outline.
- 3) Students are required to successfully complete a “Skills Check-Off” sheet. Each skill is pass/fail, with two opportunities to complete each skill.