

XIV. MINIMUM STANDARDS FOR ROPE RESCUE TECHNICIAN CERTIFICATION

This program is designed to provide specialty certification and training for Volunteer Firefighters, Volunteer Search & Rescue Technicians, Volunteer Emergency Medical Technicians and others as the Board may determine.

Technical Search & Rescue Personnel who have received training prior to passage of this program may, upon providing proof to a Board member and receiving approval, apply the training hours for certification. Any training hours earned prior to July 1, 2008 must be approved by the Board.

A. Reference Materials

The jurisdictional entity in which the Technical Rescue Personnel serves must have access to the following reference materials:

NFPA

NFPA 1006: Standard for Technical Rescuer Professional Qualifications, ed. 2008

NFPA 1670: Standard on Operations and Training for Technical Search and Rescue Incidents, ed. 2004

IFSTA

Fire Service Search and Rescue, 7th Ed. (2005)

Principles of Vehicle Extrication, 2nd Ed. (2000)

Technical Rescue for Structural Collapse, North American Version, 1st Ed. (2003)

Other

Jurisdictionally developed codes and protocols

D. The Certification Program offers two levels of Rope Rescue Technician Certification:

1. Rope Rescue Technician I

- a. Applicants must complete both of the following:
 - i. Technical Rescue Apprentice coursework
 - ii. SFFMA Rope Rescue Technician I coursework
- b. Upon meeting all requirements, an application should be completed, signed by the applicant, Certification Coordinator, and Fire Chief and sent to the Austin office, accompanied by the twenty dollar (\$20.00) application processing fee.
- c. Upon review the Austin office will issue the appropriate certificate and, upon request, a shoulder patch. A permanent record of the certification will be maintained in the Austin office.

2. Rope Rescue Technician II

- a. Applicants must complete all of the following:
 - i. SFFMA Rope Rescue Technician I coursework
 - ii. SFFMA Rope Rescue Technician II coursework
- b. Upon meeting all requirements, an application should be completed, signed by the applicant, Certification Coordinator, and Fire Chief and sent to the Austin office, accompanied by the twenty dollar (\$20.00) application processing fee.
- c. Upon review the Austin office will issue the appropriate certificate and, upon request, a shoulder patch. A permanent record of the certification will be maintained in the Austin office.

E. Training Requirements

ROPE RESCUE TECHNICIAN I		
SECTION	SUBJECT	HOURS
1	Site Operations	4
2	Anchor Systems	12
3	Rope Ascent and Descent	2
4	Victim Transport	8
5	Highline Systems	14
TOTAL RECOMMENDED HOURS		40
ROPE RESCUE TECHNICIAN I		
SECTION	SUBJECT	HOURS
1	High Angle Operations	20
2	Highline Systems	20
TOTAL RECOMMENDED HOURS		40

* The recommended hours for skills evaluation is based on 12 students. Actual hours needed depends on the number of students, the number of examiners, availability of equipment, and the student skill level

9. Curriculum for Rope Rescue Technician I

SECTION 1 SITE OPERATIONS – 4 HOURS

- 1-01 Trainee shall correctly describe the necessary elements of successful pre-planning as they relate to rope rescue incidents.
- 1-02 Trainee shall correctly describe the factors that rescuers must know to effectively perform a scene size-up involving rope rescue incidents.
- 1-03 Trainee shall correctly describe the necessary elements for implementing an on-scene operational plan or incident action plan (IAP) associated with incidents involving rope rescue operations.
- 1-04 Trainee shall correctly describe the types of hazards and their consequences for rescuers that need to be included in a hazards assessment associated with incidents involving rope rescue operations.
- 1-05 Trainee shall correctly describe the responsibilities of command and the primary functions of command associated with incidents involving rope rescue operations.
- 1-06 Trainee shall correctly describe the design and purpose of the various types of mechanical advantage systems (MAS).
- 1-07 Trainee shall correctly identify and describe the function of various types of rope grab systems when incorporated into a mechanical advantage system.
- 1-08 Trainee shall correctly identify various consensus standards related to rope rescue and how each standard addresses rope usage for various environments like fire and rescue, industry, and recreational.
- 1-09 Trainee shall correctly identify physical stresses put on a rescuer during rope rescue incidents.
- 1-10 Trainee shall correctly identify personal protective garments and accessory gear recommended for wear at rope rescue incidents.
- 1-11 Trainee shall correctly identify and demonstrate the use of different types of safety harnesses considered to be part of the rescuer's PPE list.
- 1-12 Trainee shall correctly identify guidelines established by NFPA and OSHA standards for the safe use of ropes and related rope rescue equipment.
- 1-13 Trainee shall correctly identify and describe the function of software equipment used for rope rescue operations.
- 1-14 Trainee shall correctly identify and describe the function of hardware equipment used for rope rescue operations.
- 1-15 Trainee shall correctly identify rescue considerations for each phase of the high- or low-angle rescue incident.

SECTION 2 ANCHOR SYSTEMS – 12 HOURS

- 2-01 Trainee, given the proper equipment, shall correctly identify and demonstrate the construction of various types of anchor systems used in the rescue environment, with no instructor assists.
- 2-02 Trainee, given the proper equipment, shall correctly construct a two-point and three-point **load sharing** anchor system used in the rescue environment, with no instructor assists.
- 2-03 Trainee, given the proper equipment, shall correctly construct a two-point and three-point **load distributing** anchor system used in the rescue environment, with no instructor assists.
- 2-04 Trainee, given the proper equipment, shall correctly demonstrate constructing a multiple-point anchor system used in the rescue environment, with no instructor assists.
- 2-05 Trainee, given the proper equipment, shall correctly demonstrate constructing a compound rope mechanical advantage system used in the rescue environment, with no instructor assists.
- 2-06 Trainee, given the proper equipment, shall correctly demonstrate constructing a fixed-rope system used in the rescue environment with no instructor assists.
- 2-07 Trainee, given the proper equipment, shall correctly demonstrate the operation of a compound rope mechanical advantage system in a high-angle rescue environment, with no instructor assists.

SECTION 3 ROPE ASCENT AND DESCENT – 2 HOURS

- 3-01 Trainee, given the proper equipment, shall correctly ascend a fixed rope a minimum of 20 feet in a high-angle rescue environment, with no instructor assists.
- 3-02 Trainee, given the proper equipment, shall correctly descend a fixed rope a minimum of 20 feet in a high-angle rescue environment, with no instructor assists.
- 3-03 Trainee, given the proper equipment, shall correctly complete an assignment while suspended from a rescue system in a high-angle rescue environment, with no instructor assists.

SECTION 4 VICTIM TRANSPORT – 8 HOURS

- 4-01 Trainee shall correctly identify and demonstrate the construction of various types of lifting systems using timbers for the purpose of moving victims during rope rescue incidents.
- 4-02 Trainee shall correctly identify and demonstrate the construction of various types of lifting systems using ladders for the purpose of moving victims during rope rescue incidents.
- 4-03 Trainee shall correctly move a victim in a high-angle rescue environment, with no instructor assists.
- 4-04 Trainee, given the appropriate equipment, shall function as a litter tender in a high-angle lowering or hauling rescue operation, with no instructor assists.
- 4-05 Trainee, given the appropriate equipment, shall correctly direct a team in the removal of a simulated victim suspended from rope or webbing in a high-angle rescue environment, with no instructor assists.
- 4-06 Trainee, given the appropriate equipment, working as a member of a team, and following local medical protocols, shall correctly discuss the considerations and goals regarding assessing, stabilizing and packaging a patient for safe removal from a rope rescue incident.
- 4-07 Trainee, given the appropriate equipment and working as a member of a team, shall correctly demonstrate safe and efficient rope rescue methods for gaining access to a patient, and removing the patient from various rope rescue incidents.
- 4-08 Trainee, given the appropriate equipment, shall correctly identify and describe the function of various types of litters, and demonstrate packaging a patient in a particular litter.
- 4-09 Trainee, given the appropriate equipment, shall correctly identify, describe, and demonstrate rigging a litter and a system to perform a vertical lower and raise, with and without an attendant.
- 4-10 Trainee, given the appropriate equipment, shall correctly identify, describe, and demonstrate rigging a litter and a system to perform a horizontal lower and raise, with and without an attendant.

SECTION 5 HIGHLINE SYSTEMS – 14 HOURS

- 5-01 Trainee shall correctly identify the minimum specifications and requirements for setting up a highline system.
- 5-02 Trainee, given the appropriate equipment, shall correctly describe and demonstrate rigging various simple technical advantage systems with rope grab systems used by the AHJ, with no instructor assists.
- 5-03 Trainee, given the appropriate equipment, shall correctly describe and demonstrate rigging various compound mechanical advantage systems with rope grab systems used by the AHJ, with no instructor assists.
- 5-04 Trainee, given the appropriate equipment, shall direct a team in the construction of a highline system, with no instructor assists.
- 5-05 Trainee, given the appropriate equipment, shall direct a team in the operation of a highline system, with no instructor assists.
- 5-06 Trainee, given the appropriate equipment, shall correctly demonstrate setting up a horizontal highline system and executing a rescue operation, with no instructor assists.
- 5-07 Trainee, given the appropriate equipment, shall correctly demonstrate setting up a sloped or steep highline system and executing a rescue operation, with no instructor assists.

11. Curriculum for Rope Rescue Technician II

SECTION 1 HIGH ANGLE OPERATIONS – 20 HOURS

- 1-01 Trainee, given the appropriate equipment and working as a member of a team, shall correctly demonstrate completing an assignment while suspended from a rope system, with a height of at least 20 feet, with no more than one instructor assist.
- 1-02 Trainee, given the appropriate equipment and working as a member of a team, shall correctly demonstrate moving a simulated victim that is suspended from a rope system, with a height of at least 20 feet, with no more than one instructor assist.
- 1-03 Trainee, given the appropriate equipment and working as a litter tender, shall correctly demonstrate raising and lowering a simulated victim suspended from a rope system, with a height of at least 20 feet, with no more than one instructor assist.

SECTION 2 HIGHLINE SYSTEMS – 20 HOURS

- 2-01 Trainee shall correctly identify the minimum specifications and requirements for setting up a highline system, including personnel assignments, safety concerns and how to calculate load requirements.
- 2-02 Trainee, given the appropriate equipment and working as a member of a team, shall correctly demonstrate directing the team to set up a highline system over a span of at least 20', so that safety and load factors are maintained.