



DEPARTMENT OF FORESTRY AND FIRE PROTECTION
OFFICE OF THE STATE FIRE MARSHAL
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Date: January 14, 2022

To: Statewide Training and Education Advisory Committee
State Board of Fire Services

From: Chris Fowler, Deputy State Fire Marshal III, Supervisor
Joe Bunn, Fire Service Training Specialist III, (Retired), CAL FIRE

SUBJECT/AGENDA ACTION ITEM:
Confined Space Rescue Curriculum

Recommended Actions:
Seeking approval of the new/updated Confined Space Rescue curriculum

Background Information:
Update and correlate State Fire Training's Confined Space Rescue curriculum with National Fire Protection Association (NFPA) 1006: Standard for Technical Rescue Personnel Professional Qualifications, 2021 edition.

Analysis/Summary of Issue:

Curriculum Updates

- A. The update required editorial changes to align with the National Fire Protection Association (NFPA) 1006 Standard for Technical Rescue Personnel Professional Qualifications (2021) for fire fighters and personnel who conduct confined space technical rescue.
- B. There were no content changes beyond minor editorial and grammar revisions. The curriculum was moved to the current document templates.
- C. The course lengths did not change.
- D. There is a student training record for the Technician course to validate psychomotor learning. There is no student training record for the Awareness course.

Instructor Requirements

Instructors for the Confined Space Rescue courses must meet the SFT requirements for Registered Instructor. Instructors must have appropriate education and practical experience relating to the specific course content. There is an instructor task book for the Technician course to validate the instructor's understanding of the psychomotor learning components, but not for the Awareness course.

Existing Registered Instructors.....Completed by December 31, 2022
Current Confined Space Rescue Awareness (2008) Registered Instructors will be authorized to teach the 2021 course. Current Confined Space Rescue Technician (2008) Registered Instructors will be authorized to teach the 2021 course.

New Registered Instructors

Individuals pursuing instructor registration to teach Confined Space Rescue: Awareness (2021) shall:

- Meet the minimum requirements to be an SFT Registered Instructor
- Successfully complete the Confined Space Rescue: Awareness (2021) course
- Complete and submit any applicable application forms
- Pay any applicable fees

Individuals pursuing instructor registration to teach Confined Space Rescue: Technician (2021) shall:

- Meet the minimum requirements to be an SFT Registered Instructor
- Successfully complete the Confined Space Rescue: Technician (2021) course
- Successfully complete the Confined Space Rescue Technician Instructor Task Book
- Deliver a minimum of two (2) SFT registered Confined Space Rescue: Technician courses
- Provide a letter signed by their Fire Chief or authorized designee which verifies qualification to deliver Confined Space Rescue Technician training
- Complete and submit any applicable application forms
- Pay any applicable fees

Registered Instructor qualifications for Confined Space Rescue are eligible for the Peer Assessment for Course Equivalency (PACE II) process.

Instructor Task Book

Instructor candidates shall complete a comprehensive instructor task book that covers all the job performance requirements (JPRs) contained in the professional qualification standards and CTS guide. The Fire Chief or authorized designee will verify the candidate's occupational experience by signing the task book upon completion.

Potential Agency Impacts

Accredited Regional Training Programs (ARTP), Accredited Local Academies (ALA), community colleges, and all other local delivery venues need to review the curriculum and seek approval from their curriculum committee/program sponsor as appropriate.



IMPLEMENTATION PLAN

Confined Space Rescue

Issued: **Month** 2022

OVERVIEW

This document is intended to provide information for all State Fire Training (SFT) stakeholders on the new Confined Space Rescue (2021) curriculum which includes Awareness and Technician-level courses. Stakeholders are encouraged to study this information carefully and seek clarification from SFT if questions arise.

SFT based this curriculum on the current National Fire Protection Association (NFPA) Standard, 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021). After approval from STEAC and SBFS, all curriculum documents will be available on the SFT website.

SFT is exploring the possibility of creating a Technical Rescue certification over the next three years. If or when this occurs, this curriculum will transition to the CFSTES program with testing and certification requirements. SFT will communicate updates as appropriate.

IMPLEMENTATION

SFT recognizes that many candidates are vested in the current Confined Space Rescue tracks and therefore, the existing Confined Space Rescue curriculum will be available for those candidates during the transition period. Candidates entering the SFT system should enroll in the new Confined Space Rescue (2021) courses and comply with the new Confined Space Rescue requirements.

New Curriculum	Hours
Confined Space Rescue: Awareness	8 hours
Confined Space Rescue: Technician	40 hours

New Confined Space Rescue (2021) Curriculum June 1, 2022

Retirement of Confined Space Rescue (2008) Curriculum December 31, 2022
Effective December 31, 2022, SFT will retire the FSTEP Confined Space Rescue (2008) curriculum from the course catalog and it will no longer be available.

INSTRUCTOR REQUIREMENTS

Instructor Registration Available June 1, 2022
Instructors for the Confined Space Rescue courses must meet the SFT requirements for Registered Instructor. Instructors must have appropriate education and practical experience relating to the specific course content.

Existing Registered Instructors (Currency Requirement) Complete by December 31, 2022

Current Confined Space Rescue Awareness (2008) Registered Instructors will be authorized to teach the Confined Space Rescue: Awareness (2021) course. Current Confined Space Rescue Technician (2008) Registered Instructors will be authorized to teach the Confined Space Rescue: Technician (2021) course.

New Registered Instructors

Individuals pursuing instructor registration to teach Confined Space Rescue: Awareness (2021) shall:

- Meet the minimum requirements to be an SFT Registered Instructor
- Successfully complete the Confined Space Rescue: Awareness (2021) course
- Complete and submit any applicable application forms
- Pay any applicable fees

Individuals pursuing instructor registration to teach Confined Space Rescue: Technician (2021) shall:

- Meet the minimum requirements to be an SFT Registered Instructor
- Successfully complete the Confined Space Rescue: Technician (2021) course
- Successfully complete the Confined Space Rescue Technician Instructor Task Book
- Deliver a minimum of two (2) SFT registered Confined Space Rescue: Technician courses
- Provide a letter signed by their Fire Chief or authorized designee which verifies qualification to deliver Confined Space Rescue Technician training
- Complete and submit any applicable application forms
- Pay any applicable fees

Registered Instructor qualifications for Confined Space Rescue are eligible for the Peer Assessment for Course Equivalency (PACE II) process.

Instructor Task Book

Instructor candidates shall complete a comprehensive instructor task book that covers all the job performance requirements (JPRs) contained in the professional qualification standards and CTS guide. The Fire Chief or authorized designee will verify the candidate's occupational experience by signing the task book upon completion.

POTENTIAL AGENCY IMPACTS

Fire agencies desiring to utilize the Confined Space Rescue curriculum as a requirement for their recruitment/promotion activities need to review the Confined Space Rescue curriculum requirements to be sure that all agency training needs are met. After review, fire agencies should update their job specifications and recruitment documentation to reflect these new courses and requirements.

Accredited Regional Training Programs (ARTP), Accredited Local Academies (ALA), community colleges, and all other local delivery venues need to review the curriculum and seek approval

from their curriculum committee / program sponsor, as appropriate. ARTPs should review the new Confined Space Rescue curriculum and discuss potential impacts with their advisory committees.



Confined Space Rescue Technician (2022) Interim Procedures

Issued: January 2022

Procedure Changes

- Edition:** May 2020 edition of the *State Fire Training Procedures Manual*
- Effective Date:** February 17, 2022 (anticipated)
- Section Changes:** Modify and update **Section 6.11.3: Confined Space Rescue Technician (CSRT) – Instructor Levels**
Modify and update **Section 6.11.4: Confined Space Rescue Technician (CSRT) – Instructor**
Delete **Section 6.11.5: Confined Space Rescue Technician (CSRT) – Senior Instructor**
- Justification:** Following approval by the State Board of Fire Services, the new Structural Collapse Specialist curriculum will go into effect. The State Board of Fire Services will also have approved the Implementation Plan to retire the existing Confined Space Rescue curriculum on December 31, 2022. The new curriculum provides directive for Instructor qualification that creates a single Instructor level thereby repealing the existing Senior Instructor level.
- SFT Contact** [Contact SFT Staff](#) assigned to Instructor Registration.
- Note:** Repeal Sections 6.11.3, 6.11.4, and 6.11.5 from the May 2020 edition of the *State Fire Training Procedures Manual* in their entirety. These Sections will be replaced with the text shown below with the projected 2022 regulatory language.

6.11.4: CONFINED SPACE RESCUE TECHNICIAN (CSRT) – INSTRUCTOR LEVELS

6.11.4.1: Instructor Trainee

- A. Instructor Trainee is the entry level for becoming a Registered CSRT Instructor.
- B. An individual is considered an Instructor Trainee while they complete the Confined Space Rescue Technician Instructor Task Book (2021).
 1. Trainees have two (2) years after beginning the Task Book to complete its requirements.
 2. The applicant must submit the Task Book for instructor registration within one (1) year of completing it
- C. Under direct supervision of a Registered CSRT Instructor, the Instructor Trainee shall:
 1. Assist in classroom and field exercise setup
 2. Support the logistics of the component(s) they are training to teach
 3. Instruct the entire squad(s) they are training to teach



Confined Space Rescue Technician (2022) Interim Procedures

D. State Fire Training (SFT) does not register CSRT Instructor Trainees.

6.11.4.2: Registered Instructor

- A. A Registered CSRT Instructor is qualified to teach one (1) squad (up to 12 students) in a CSRT course with two (2) or three (3) squads.
- B. In addition to the responsibilities required of all SFT Registered Instructors (See **6.2.7: Responsibilities**), Registered CSRT Instructors are also required to:
 1. Set up the classroom and field exercises
 2. Administer any psychomotor skills exams
 3. Evaluate student/team performance and sign each student's task book

6.11.5: CONFINED SPACE RESCUE TECHNICIAN (CSRT) – INSTRUCTOR

6.11.5.1: Eligible Courses

Table 6.11.5.1: CSRT Instructor Eligible Courses

CFSTES Courses	FSTEP Courses
<ul style="list-style-type: none"> • None 	<ul style="list-style-type: none"> • Confined Space Rescue Technician

6.11.5.2: General Qualifications

- A. A Registered CSRT Instructor shall meet the qualifications required of all State Fire Training (SFT) Registered Instructors.
 1. See **6.2.1: Qualifications**.

6.11.5.3: Course Work

- A. A CSRT Instructor Trainee or Registered Instructor must have attended and passed:
 1. SFT Confined Space Rescue Technician
 2. SFT Rescue Systems 1: Basic Rescue Skills

6.11.5.4: Instructor Requirements

- A. See **6.2.1.2: Instructor Requirements**.

6.11.5.5: Teaching Experience



Confined Space Rescue Technician (2022) Interim Procedures

A. None

6.11.5.6: Task Book

- A. A CSRT Instructor Trainee has two (2) years after starting their CSRT Instructor Task Book to complete the Task Book requirements.
- B. A CSRT Instructor Trainee must satisfy all instructor requirements and become a Registered CSRT Primary Instructor within one (1) year of completing their task book.

6.11.5.7: Professional Experience

- A. A CSRT Instructor Trainee or Registered Instructor shall meet the rank and professional experience qualifications listed below.
 1. Performing in an “acting” capacity does not qualify.

Table 6.11.5.1: CSRT Primary Instructor Professional Experience

FSTEP Courses	Experience
<ul style="list-style-type: none"> • Confined Space Rescue Technician 	<ul style="list-style-type: none"> • Have a minimum of three (3) years’ experience within a recognized fire agency in California in the field of rescue (e.g., being a member of an identifiable rescue team)

6.11.5.8: Application – Instructor Trainee

- A. The applicant shall submit the following items to the Registered CSRT Instructor who will oversee the evaluation:
 - A current resume listing education, position, and experience
 - A copy of a course completion certificate from SFT for Confined Space Rescue Technician and Rescue Systems 1: Basic Rescue Skills
 - A copy of SFT certificates or verification of the qualifying equivalents (See **6.2.1.2: Instructor Requirements**, item C.)
 - A verification letter signed by the Fire Chief, or their authorized designee, describing the applicant’s specific background as it relates to their experience.
 - See **4.1.1: Letters of Verification**.
 - CSRT Instructor Task Book

6.11.5.9: Application – Instructor

- A. See **6.2.3: Application Process**.



Confined Space Rescue Technician (2022) Interim Procedures

6.1145.10: Maintenance

- A. A Registered CSRT Instructor shall teach at least two (2) SFT Confined Space Rescue Technician courses every four (4) years.

Confined Space Rescue Technician

(NFPA 1006: Confined Space Rescue
Awareness/Operations/Technician)

Certification Training Standards Guide (2021)



California Department of Forestry and Fire Protection
Office of the State Fire Marshal
State Fire Training

Confined Space Rescue Technician

Certification Training Standards Guide (2021)

Publication Date: Month Year

This CTS guide utilizes the following NFPA standards to provide the qualifications for State Fire Training's Confined Space Rescue Technician (2021) certification:

- NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)

State Fire Training coordinated the development of this CTS guide. Before its publication, the Statewide Training and Education Advisory Committee (STEAC) and the State Board of Fire Services (SBFS) recommended this CTS guide for adoption by the Office of the State Fire Marshal (OSFM).

Cover photo courtesy of Andrew Kibby, Battalion Chief, CAL FIRE.

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How to Read a CTS Guide

Overview

A certification training standard (CTS) guide lists the requisite knowledge, skills, and job performance requirements an individual must complete to become certified in a specific job function.

It also documents and justifies the OSFM-approved revisions to the certification's NFPA standard and identifies where each certification training standard is taught (course plan), tested (skill sheets), and validated (task book).

Individuals aspiring to meet State Fire Training's certification training standards must do so in accordance with the codes, standards, regulations, policies, and standard operating procedures applicable within their own agency or jurisdiction.

Format

Each certification training standard is comprised of eight sections.

Section Heading

Training standards are grouped by section headings that describe a general category. For example, the Fire Fighter 1 CTS guide includes the following section headings: NFPA Requirements, Fire Department Communications, Fireground Operations, and Preparedness and Maintenance.

Training Standard Title

The training standard title provides a general description of the performance requirement contained within the individual standard.

Authority

The CTS guide references each individual standard with one or more paragraphs of the corresponding National Fire Protection Association (NFPA) Professional Qualifications. This ensures that each fire service function within California's certification system meets or exceeds NFPA standards.

When California requirements exceed the NFPA standard, the CTS guide cites the Office of the State Fire Marshal as the authority and prints the corresponding information in *italics*.

Job Performance Requirements

This segment includes a written statement that describes a specific job-related task, the items an individual needs to complete the task, and measurable or observable outcomes.

Requisite Knowledge

This segment lists the knowledge that an individual must acquire to accomplish the job performance requirement.

Requisite Skills

This segment lists the skills that an individual must acquire to accomplish the job performance requirement.

Content Modification

This table documents and justifies any revisions to the NFPA standard that the development or validation cadres make during the development of a CTS guide.

Cross Reference

This table documents where each training standard is taught (course plan), tested (skill sheets), and validated (task book).

Confined Space Rescue

Section 1: Awareness

1-1: Initiating Isolation Procedures for a Specific Confined Space Incident

Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
 - Paragraph 7.1.1

Job Performance Requirement

Initiate isolation procedures for a specific confined space incident, given scene control barriers, personal protective equipment (PPE), requisite equipment, and available specialized resources, so that all hazards are identified; unauthorized entry to the confined space and adjacent areas are controlled; resource application fits the operational requirements; hazard isolation is considered; risks to rescuers, bystanders, and victims are minimized; and rescue time constraints are taken into account.

Requisite Knowledge

1. *Describe* resource capabilities and limitations
2. *Describe* hazard recognition
3. *Describe* isolation methods and terminology
4. *Describe* methods for controlling access to the scene
5. *Describe how to operate and control mitigation equipment*
6. *Identify* types of technical references

Requisite Skills

1. Identify resource capabilities and limitations
2. Identify potential hazards to rescuers and bystanders
3. Identify potential paths for entry to the confined space and its adjacent areas
4. Utilize scene entry control methods
5. Place scene control barriers
6. Operate control and mitigation equipment

Content Modification

Block	Modification	Justification
RK 5	Added new knowledge item	Added to correspond with required skill. (2021)

Cross Reference

Course Plan	Training Record	Task Book
Confined Space Rescue: Awareness (2021) <ul style="list-style-type: none">• Topic 3-4 (RK 2)• Topic 3-5	N/A	N/A

1-2: Initiating a Search in Areas Immediately Adjacent to the Confined Space

Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
 - Paragraph 7.1.2

Job Performance Requirement

Initiate a search in areas immediately adjacent to the confined space, given hazard-specific PPE, equipment pertinent to search mission, a confined space incident location, and victim investigative information, so that search parameters are established, the victim survival profile is established, the access and egress of all people either involved in the search or already within the search area are questioned and the information is updated and relayed to command, the personnel assignments match their expertise, all victims in the adjacent areas to the confined space are located as quickly as possible, applicable technical rescue concerns are managed, risks to searchers are minimized, and all searchers are accounted for.

Requisite Knowledge

1. **Describe** local policies and procedures
2. **Describe** how to operate in the environment surrounding the area of the confined space access area
3. **Describe emergency evacuation procedures**

Requisite Skills

1. Enter, maneuver in, and exit the adjacent areas to the confined space incident
2. Perform escape from the area if conditions become untenable

Content Modification

Block	Modification	Justification
RK 3	Added new knowledge item.	Added to correspond with skill requirement. (2018)

Cross Reference

Course Plan	Training Record	Task Book
Confined Space Rescue: Awareness (2021) <ul style="list-style-type: none"> • Topic 3-6 	N/A	N/A

1-3: Communicating with Victim(s)

Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
 - Paragraph 7.1.3

Job Performance Requirement

Communicate with victim(s), given a clear environment and a confined space, so that victim communication is established when possible and information relative to patient condition is documented and conveyed to incoming confined space rescue resources.

Requisite Knowledge

1. *Describe* victim communication methods appropriate to confined spaces
2. *Describe how to* use of information acquired for initial victim assessment

Requisite Skills

1. Use communication methods that are effective from the outside to the inside of a confined space
2. Identify victim communication needs and use methods for documentation and transfer of victim information

Content Modification

Block	Modification	Justification

Cross Reference

Course Plan	Training Record	Task Book
Confined Space Rescue: Awareness (2021) <ul style="list-style-type: none"> • Topic 3-7 	N/A	N/A

1-4: Performing Nonentry Rescue

Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
 - Paragraph 7.1.4

Job Performance Requirement

Perform nonentry rescue, given PPE; an anchored retrieval system attached to a victim located inside a confined space with a clear interior; safety, communication, and operational protocols; and a confined space rescue tool **cache**, so that the retrieval system is operated to extract the victim, the rescuer is protected from fall hazards when working near unprotected edges, victim communication is established and maintained, the victim is managed through the portal and patient care is initiated on extraction.

Requisite Knowledge

1. **Describe** principles of operation for **nonentry rescue** (retrieval) **systems and** equipment
2. **Identify risks associated with nonentry rescue**
3. **Describe** methods for fall prevention
4. **Describe** safety, communication, medical, and operational protocols

Requisite Skills

1. Use and apply PPE and fall prevention methods
2. Operate nonentry rescue (retrieval) systems and equipment
3. Implement safety, communication, **medical**, and operational protocols
4. Assure victim passage through the portal without obstruction

Content Modification

Block	Modification	Justification
JPR	A kit is a subset of a larger cache, which is more appropriate for this JPR. (2021)	Changed “kit” to “cache”.
RK 1	Added “nonentry rescue” and “systems and”.	Added to clarify that awareness-level personnel cannot enter a confined space for rescue. (2021)
RK 2	Added new knowledge item.	Not addressed by NFPS. (2021)
RS3	Added “medical”.	Added for consistency with other protocol lists. (2021)

Cross Reference

Course Plan	Training Record	Task Book
Confined Space Rescue: Awareness (2021) <ul style="list-style-type: none"> • Topic 3-8 	N/A	N/A

1-5: Sizing Up a Confined Space Rescue Incident

Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
 - Paragraph 7.1.5

Job Performance Requirement

Size up a confined space rescue incident, given background information and applicable reference materials, so that the scope of the rescue is determined, the number of victims is identified, the last reported location of all the victims is established, witnesses and reporting parties are identified and interviewed, resource needs are assessed, primary search parameters are identified, and information required to develop an initial incident action plan is obtained.

Requisite Knowledge

1. **Identify** types of reference materials and their uses
2. **Identify** availability and capability of the resources
3. **Identify** elements of an incident action plan and related information
4. **Describe the** relationship of the size-up to the incident management system
5. **Identify** information gathering techniques and how that information is used in the size-up process
6. **Identify** basic search criteria for confined space rescue incidents

Requisite Skills

1. Read technical rescue reference materials
2. Gather information
3. Use interview techniques
4. Relay information
5. Use information-gathering sources

Content Modification

Block	Modification	Justification

Cross Reference

Course Plan	Training Record	Task Book
Confined Space Rescue: Awareness (2021) <ul style="list-style-type: none"> • Topic 3-2 	N/A	N/A

1-6: Recognizing the Need for Technical Rescue Resources

Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
 - Paragraph 7.1.6

Job Performance Requirement

Recognize the need for technical rescue resources at an operations- or technician-level incident, given AHJ guidelines, so that the need for additional resources is identified, the response system is initiated, the scene is secured and rendered safe until additional resources arrive, and awareness-level personnel are incorporated into the operational plan.

Requisite Knowledge

1. *Describe* operational protocols
2. *Identify* specific planning forms
3. *Describe* types of incidents common to the AHJ
4. *Identify* hazards
5. *Identify* types of resources
6. *Identify* needed resources
7. *Describe* incident support operations and resources
8. *Describe* safety measures

Requisite Skills

1. Apply operational protocols
2. Select specific planning forms based on the types of incidents
3. Identify and evaluate various types of hazards within the AHJ
4. Request support and resources
5. Determine the required safety measures

Content Modification

Block	Modification	Justification
RK 5	Added new knowledge item.	Not addressed by NFPA. (2021)
RK 6	Added new knowledge item.	Not addressed by NFPA. (2021)

Cross Reference

Course Plan	Training Record	Task Book
Confined Space Rescue: Awareness (2021) <ul style="list-style-type: none"> • Topic 3-3 	N/A	N/A

1-7: Supporting an Operations- or Technician-level Incident

Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
 - Paragraph 7.1.7

Job Performance Requirement

Support an operations- or technician-level incident, given an incident, an assignment, an incident action plan, and resources from the tool **cache**, so that the assignment is carried out, progress is reported to command, environmental concerns are managed, personnel rehabilitation is facilitated, and the incident action plan is supported.

Requisite Knowledge

1. **Describe** AHJ operational protocols
2. **Describe** hazard recognition
3. **Describe** incident management
4. **Describe** PPE selection
5. **Describe** resource selection and use
6. **Describe** scene support requirements

Requisite Skills

1. Apply operational protocols
2. Function within an incident management system
3. Follow and implement an incident action plan
4. Report the task progress status to a supervisor or incident command

Content Modification

Block	Modification	Justification
JPR	Changed "kit" to "cache".	A kit is a subset of a larger cache, which is more appropriate for this JPR. (2021)

Cross Reference

Course Plan	Training Record	Task Book
Confined Space Rescue: Awareness (2021) <ul style="list-style-type: none"> • Topic 3-1 	N/A	N/A

Section 2: Operations

2-1: Initiating a Search Inside a Confined Space in Those Areas Immediately Visible from the Confined Space Entry Portal

Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
 - Paragraph 7.2.1

Job Performance Requirement

Initiate a search inside a confined space in those areas immediately visible from the confined space entry portal, given hazard-specific PPE, equipment pertinent to search mission, a confined space, and victim investigative information, so that search parameters are established; the victim profile is established; the people in or around the search area are questioned and the information is updated and relayed to command; the personnel assignments match their expertise; all victims inside the space that are immediately visible from outside the portal are located and identified quickly; applicable technical rescue concerns are managed; risks to searchers are minimized; and all searchers are accounted for.

Requisite Knowledge

1. **Identify** local policies and procedures
2. **Describe** how to operate in the environment surrounding the area of the confined space access area

Requisite Skills

1. Work in the immediate area of the confined space entry portal
2. Perform immediate escape from the area if conditions become untenable

Content Modification

Block	Modification	Justification

Cross Reference

Course Plan	Training Record	Task Book
Confined Space Rescue: Technician <ul style="list-style-type: none">• Topic 9-3	Confined Space Rescue Technician (2021) <ul style="list-style-type: none">• 1	Confined Space Rescue Technician Instructor (2021) <ul style="list-style-type: none">• JPR 1

2-2: Performing Size-up of a Confined Space Rescue Incident

Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
 - Paragraph 7.2.2

Job Performance Requirement

Perform size-up of a confined space rescue incident, given background information and applicable reference materials, so that the type of rescue is determined, the number of victims is identified, the last reported location of all victims is established, witnesses and reporting parties are identified and interviewed, resource needs are assessed, search parameters are identified, and information required to develop an incident action plan is obtained.

Requisite Knowledge

1. **Describe** types of reference materials and their uses
2. **Identify** availability and capability of the resources
3. **Describe** elements of an action plan and related information
4. **Describe** relationship of size-up to the incident management system
5. **Describe** information gathering techniques and how that information is used in the size-up process

Requisite Skills

1. Read technical rescue reference materials
2. Gather information
3. Relay information
4. Use information gathering sources

Content Modification

Block	Modification	Justification

Cross Reference

Course Plan	Training Record	Task Book
Confined Space Rescue: Technician <ul style="list-style-type: none"> • Topic 3-5 (RK 2) • Topic 3-7 (RK 1, 3, 4, 5) • Topic 8-2 (RS 1-4) 	Confined Space Rescue Technician (2021) <ul style="list-style-type: none"> • 2 	Confined Space Rescue Technician Instructor (2021) <ul style="list-style-type: none"> • JPR 2

2-3: Conducting Environmental Monitoring

Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
 - Paragraph 7.2.3

Job Performance Requirement

Conduct monitoring of the environment, given monitoring equipment reference material, PPE, accurately calibrated detection and monitoring equipment, and size-up information, so that a representative sample of the space is obtained, accurate readings are made, readings are documented, and effects of ventilation in determining atmospheric conditions and the conditions of the space have been determined for exposures to existing or potential environmental hazards.

Requisite Knowledge

1. **Describe** capabilities and limitations of detection and monitoring equipment
2. **Describe** ways to confirm calibration
3. **Describe** defining confined space configuration as it applies to obtaining a representative sample of space
4. **Describe** basic physical properties of contaminants
5. **Describe** how to determine contents of a confined space

Requisite Skills

1. Use and confirm calibration of detection and monitoring equipment
2. Acquire representative samples of space

Content Modification

Block	Modification	Justification

Cross Reference

Course Plan	Training Record	Task Book
Confined Space Rescue: Technician <ul style="list-style-type: none"> • Topic 3-1 (RK 4) • Topic 3-2 (RK 1, 2, 3, 5) • Topic 8-3 (RS 1, 2) 	Confined Space Rescue Technician (2021) <ul style="list-style-type: none"> • 3 	Confined Space Rescue Technician Instructor (2021) <ul style="list-style-type: none"> • JPR 3

2-4: Assessing the Incident

Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
 - Paragraph 7.2.4

Job Performance Requirement

Assess the incident, given size-up information, information from technical resources, monitoring equipment, and PPE required to perform the assessment, so that general area and space-specific hazards are identified, bystanders and victims are interviewed, immediate and ongoing monitoring of the space is performed, the victims' conditions and location are determined, a risk/benefit analysis is performed, methods of ingress and egress for rescuer and victims are identified, rescue systems for victim removal are determined, and an emergency means of retrieval for rescue entrants is established.

Requisite Knowledge

1. *Describe* use of size-up information and interview techniques
2. *Describe* types of PPE
3. *Describe* monitoring equipment protocols
4. *Describe* rescue and retrieval systems
5. *Describe* permit programs
6. *Identify* types of and uses for available resources
7. *Describe* risk/benefit analysis methods
8. *Describe* common hazards and their influence on the assessment
9. *Describe* methods to identify egress from and ingress into the space
10. *Describe* processes to identify size, type, and configuration of the opening(s) and internal configuration of the space

Requisite Skills

1. Select and interpret size-up information
2. Conduct interviews
3. Choose and utilize PPE
4. Operate monitoring equipment
5. Identify hazard mitigation options
6. Identify probable victim location
7. Perform risk/benefit analysis
8. Recognize characteristics and hazards of confined spaces
9. Evaluate specific rescue systems for confined space entry and retrieval of rescuers and victims during confined space incidents

Content Modification

Block	Modification	Justification

Cross Reference

Course Plan	Training Record	Task Book
Confined Space Rescue: Technician <ul style="list-style-type: none"> • Topic 2-6 (RK 2) • Topic 3-1 (RK 8) • Topic 3-4 (RK 7) • Topic 3-5 (RK 6) • Topic 3-6 (RK 1, 3, 4, 5, 9, 10) • Topic 8-1 (RS 1-9) 	Confined Space Rescue Technician (2021) <ul style="list-style-type: none"> • 4 	Confined Space Rescue Technician Instructor (2021) <ul style="list-style-type: none"> • JPR 4

2-5: Controlling Hazards

Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
 - Paragraph 7.2.5

Job Performance Requirement

Control hazards, given PPE and a confined space tool **cache**, so that the rescue area is established; access to the incident scene is controlled; rescuers are protected from exposure to hazardous materials and atmospheres, all forms of harmful energy releases, and physical hazards; and victims are protected from further harm.

Requisite Knowledge

1. **Describe** PPE
2. **Describe** safety protocols
3. **Describe** monitoring equipment and procedures
4. **Describe** ventilation equipment and procedures
5. **Describe** incident hazards
6. **Describe** types of hazardous materials exposure risks
7. **Describe** forms, sources, and control of harmful energy and physical hazards in the confined space

Requisite Skills

1. Utilize PPE
2. Place scene control barriers
3. Operate atmospheric monitoring equipment
4. Ventilate a confined space
5. Identify dangerous forms of energy
6. Mitigate physical and atmospheric hazards

Content Modification

Block	Modification	Justification
JPR	Changed "kit" to "cache".	A kit is a subset of a larger cache, which is more appropriate for this JPR. (2021)

Cross Reference

Course Plan	Training Record	Task Book
Confined Space Rescue: Technician <ul style="list-style-type: none">• Topic 2-6 (RK 1)• Topic 3-1 (RK 5, 6)• Topic 3-3 (RK 2)• Topic 8-4 (RK 3, 4, 7, RS 1-6)	Confined Space Rescue Technician (2021) <ul style="list-style-type: none">• 5	Confined Space Rescue Technician Instructor (2021) <ul style="list-style-type: none">• JPR 5

2-6: Applying and Using Self-contained Breathing Apparatus (SCBA) as a Rescue Entrant

Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
 - Paragraph 7.2.6

Job Performance Requirement

Apply and use self-contained breathing apparatus (SCBA) as a rescue entrant, given a confined space incident requiring respiratory protection, a rescue assignment, a means of entry into and exit from the space, a rescue attendant outside the space, SCBA, breathing apparatus cylinders, and a confined space, so that the internal configuration of the space is clear and unobstructed so retrieval systems can be utilized for rescuers without possibility of entanglement, the victim can be seen easily from the outside of the space's primary access opening, rescuers can pass easily through the access/egress opening(s) with room to spare when PPE is worn in the manner recommended by the manufacturer, the space can accommodate two or more rescuers in addition to the victim, all hazards in and around the confined space have been identified and can be mitigated by using respiratory protection, the rescue entrant passes through the portal without removal of the SCBA, the assigned rescue duty is performed, the rescue entrant frequently assesses the level of air remaining in the cylinder and communicates this level to rescuers outside of the space, and the rescue entrant exits the space prior to activation of the low-pressure alarm on the SCBA.

Requisite Knowledge

1. **Describe** capabilities and limitations of SCBA in confined space rescue
2. **Describe** breathing air conservation
3. **Describe** communication methods appropriate to breathing apparatus use in confined spaces

Requisite Skills

1. Use SCBA in a confined space entry for rescue
2. Use breathing techniques that will conserve the air supply
3. Use communication methods that effectively convey information between rescuers inside and outside of the space

Content Modification

Block	Modification	Justification

Cross Reference

Course Plan	Training Record	Task Book
Confined Space Rescue: Technician <ul style="list-style-type: none">• Topic 9-1	Confined Space Rescue Technician (2021) <ul style="list-style-type: none">• 6	Confined Space Rescue Technician Instructor (2021) <ul style="list-style-type: none">• JPR 6

2-7: Applying an Atmosphere-supplying Respirator to a Victim

Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
 - Paragraph 7.2.7

Job Performance Requirement

Apply an atmosphere-supplying respirator to a victim, given a confined space incident requiring respiratory protection, a live victim, an atmosphere-supplying respirator and associated equipment, and a confined space, so that the internal configuration of the space is clear and unobstructed so retrieval systems can be utilized for rescuers without possibility of entanglement; the victim can be easily seen from the outside of the space's primary access opening; rescuers can pass easily through the access/egress opening(s) with room to spare when PPE is worn in the manner recommended by the manufacturer; the space can accommodate two or more rescuers in addition to the victim; all hazards in and around the confined space have been identified and can be mitigated by using respiratory protection; the apparatus face piece is applied rapidly, positioned properly on the face and without air leakage; application of the face piece can be performed simultaneously with spinal precautions; the breathing apparatus unit is securely placed during victim movement so the face piece will not be pulled from the victim's face during movement; the level of air remaining in the victim's breathing apparatus is frequently accessed and communicated; and the victim is removed from the space without interruption of the air supply.

Requisite Knowledge

1. **Describe** capabilities and limitations of atmosphere supplying respirators (SCBA or SAR) for victims in confined space rescue
2. **Describe** expected victim air usage
3. **Describe** methods for application of face pieces to victims wearing helmets and for those with spinal injuries
4. **Describe** methods for securement of a victim's breathing apparatus unit when packaged in litters, attached to rope rescue systems, or being dragged along a horizontal plane
5. **Describe** communication methods in confined spaces

Requisite Skills

1. Apply a patent air supply to a victim in a confined space rescue
2. Move the victim wearing breathing apparatus without interruption or compromise of their air supply or face piece seal
3. Continuous monitoring of the victim's air supply during operations
4. Use communication methods that effectively convey information between rescuers inside and outside of the space

Content Modification

Block	Modification	Justification

Cross Reference

Course Plan	Training Record	Task Book
Confined Space Rescue: Technician <ul style="list-style-type: none">• Topic 11-1	Confined Space Rescue Technician (2021) <ul style="list-style-type: none">• 7	Confined Space Rescue Technician Instructor (2021) <ul style="list-style-type: none">• JPR 7

2-8: Performing Full Spinal Immobilization of a Victim Inside a Confined Space

Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
 - Paragraph 7.2.8

Job Performance Requirement

Perform full spinal immobilization of a victim inside a confined space, given a confined space incident requiring spinal precautions, a victim, full spinal immobilization equipment, a second rescuer to assist, and a confined space, so that the internal configuration of the space is clear and unobstructed so retrieval systems can be utilized for rescuers without possibility of entanglement, the victim can be easily seen from the outside of the space's primary access opening, rescuers can pass easily through the access/egress opening(s) with room to spare when PPE is worn in the manner recommended by the manufacturer, the space can accommodate two or more rescuers in addition to the victim, all hazards in and around the confined space have been identified and can be mitigated by using respiratory protection so that the victim's cervical spine is manually maintained in a neutral position immediately on contact and maintained until the body and head are completely immobilized and secure, victim movement onto the spinal immobilization device creates minimal manipulation of the spine, void spaces between the victim and immobilization device are padded as appropriate, victim securement to the immobilization device will prevent spinal manipulation during movement, and applicable local treatment protocols are followed.

Requisite Knowledge

1. *Describe* capabilities and limitations of long spine immobilization equipment for victims in confined space rescue
2. *Describe* methods for movement of a victim onto a long spine immobilizer with minimum spinal manipulation
3. *Describe* methods for securement of a victim's body on a long spine immobilizer
4. *Describe* methods for securement of a victim's head on a long spine immobilizer
5. *Describe* other long spinal immobilization treatment modalities and procedures

Requisite Skills

1. Maintain manual immobilization of a victim's head during the immobilization process
2. Assist in moving the victim to a long spine immobilizer with only two persons with minimal spinal manipulation
3. Apply void space padding as needed based on the immobilization device
4. Apply and secure the victim's body and head to a long spinal immobilization device

Content Modification

Block	Modification	Justification

Cross Reference

Course Plan	Training Record	Task Book
Confined Space Rescue: Technician <ul style="list-style-type: none">• Topic 11-2	Confined Space Rescue Technician (2021) <ul style="list-style-type: none">• 8	Confined Space Rescue Technician Instructor (2021) <ul style="list-style-type: none">• JPR 8

2-9: Preparing for Entry into Horizontally Oriented Confined Space

Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
 - Paragraph 7.2.9

Job Performance Requirement

Prepare for entry into horizontally oriented confined space, given a confined space rescue tool **cache** and a confined space, so that the internal configuration of the space is clear and unobstructed so retrieval systems can be utilized for rescuers without possibility of entanglement, the victim can be easily seen from the outside of the space’s primary access opening, rescuers can pass easily through the access/egress opening(s) with room to spare when PPE is worn in the manner recommended by the manufacturer, the space can accommodate two or more rescuers in addition to the victim, all hazards in and around the confined space have been identified and can be mitigated by using respiratory protection so that victim communication is established when possible, continuous atmospheric monitoring is initiated, rescuer readiness is verified, rescuers’ limitations are identified and evaluated, rescuers unsuitable to confined space entry operations are reassigned and replaced, route and methods of entry are determined, and rescuer evacuation is planned.

Requisite Knowledge

1. **Describe** effects of hazardous atmospheres on victims and rescuers
2. **Describe** types and operation of required hazard-specific monitoring equipment
3. **Describe** organization protocol for medical and psychological evaluation related to confined space entry
4. **Describe** methods of entry into confined spaces in accordance with operational protocols
5. **Describe** rescuer evaluation methods

Requisite Skills

1. Operate monitoring equipment
2. Perform rescuer pre-entry medical exam
3. Evaluate rescuer capabilities and limitations
4. Identify victim communication needs
5. Evaluate for point and route of confined space entry
6. Select evacuation methods

Content Modification

Block	Modification	Justification
JPR	Changed “kit” to “cache”.	A kit is a subset of a larger cache, which is more appropriate for this JPR. (2021)

Cross Reference

Course Plan	Training Record	Task Book
Confined Space Rescue: Technician <ul style="list-style-type: none">• Topic 3-1 (RK 1)• Topic 4-2 (RK 3, 4, 5)• Topic 9-5 (RK 2, RS 1-6)	Confined Space Rescue Technician (2021) <ul style="list-style-type: none">• 9	Confined Space Rescue Technician Instructor (2021) <ul style="list-style-type: none">• JPR 9

2-10: Entering a Horizontally Oriented Confined Space for Rescue

Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
 - Paragraph 7.2.10

Job Performance Requirement

Enter a horizontally oriented confined space for rescue, given PPE; safety, communication, and operational protocols; portable lighting; and a confined space rescue tool **cache**; a retrieval system; and a confined space, so that the internal configuration of the space is clear and unobstructed so retrieval systems can be utilized for rescuers without possibility of entanglement, the victim can be easily seen from the outside of the space’s primary access opening, rescuers can pass easily through the access/egress opening(s) with room to spare when PPE is worn in the manner recommended by the manufacturer, the space can accommodate two or more rescuers in addition to the victim, all hazards in and around the confined space have been identified and can be mitigated by using respiratory protection so that the victim is contacted, controlled confined space entry is established and maintained, atmosphere is monitored continuously, the victim’s mental and physical conditions are assessed further, the rescue entrant is aided by portable lighting, rescue entrants are attached to retrieval lines at all times, patient care is initiated, the patient is packaged to restrictions of the space, and patient removal can be initiated.

Requisite Knowledge

1. **Describe** principles of operation for atmospheric monitoring equipment
2. **Describe** methods for patient care in confined spaces
3. **Describe** portable lighting methods
4. **Describe** safety, communication, medical, and operational protocols
5. **Describe** controlled confined space entry and egress procedures for confined spaces

Requisite Skills

1. Use and apply PPE and rescue-related systems and equipment
2. Use portable lighting in a darkened environment
3. Implement safety, communication, and operational protocols
4. Use medical protocols to determine treatment priorities
5. Use medical equipment specific to confined space victim needs
6. Reassess and confirm mode of operation

Content Modification

Block	Modification	Justification
JPR	Changed “kit” to “cache”.	A kit is a subset of a larger cache, which is more appropriate for this JPR. (2021)

Cross Reference

Course Plan	Training Record	Task Book
Confined Space Rescue: Technician <ul style="list-style-type: none">• Topic 5-1 (RK 1, 2, 4, 5)• Topic 10-2 (all)	Confined Space Rescue Technician (2021) <ul style="list-style-type: none">• 10	Confined Space Rescue Technician Instructor (2021) <ul style="list-style-type: none">• JPR 10

2-11: Package the Victim in a Litter for Removal from a Horizontally Oriented Confined Space

Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
 - Paragraph 7.2.11

Job Performance Requirement

Package the victim in a litter for removal from a horizontally oriented confined space, given a confined space rescue tool **cache**, a litter and associated rigging equipment, a space that provides enough internal and external clearance to maneuver a litter in and around the space, so that the victim is secured to the litter, the litter is secured to the rescue system if needed, the litter will pass through the portal, the victim is protected during the extraction, and further harm to the victim is minimized.

Requisite Knowledge

1. **Describe** spinal management techniques
2. **Describe** victim packaging techniques
3. **Describe** how to use low-profile packaging devices and equipment
4. **Describe** methods to reduce or avoid damage to equipment
5. **Describe** similarities and differences between packaging for confined spaces and for other types of rescue

Requisite Skills

1. Immobilize a victim's spine
2. Package victims in litters, low-profile devices, and litters
3. Recognize and perform basic management of various traumatic injuries and medical conditions
4. Support respiratory efforts
5. Perform local treatment modalities as required based on the environment

Content Modification

Block	Modification	Justification
JPR	Changed "kit" to "cache".	A kit is a subset of a larger cache, which is more appropriate for this JPR. (2021)

Cross Reference

Course Plan	Training Record	Task Book
Confined Space Rescue: Technician <ul style="list-style-type: none"> • Topic 11-4 	Confined Space Rescue Technician (2021) <ul style="list-style-type: none"> • 11 	Confined Space Rescue Technician Instructor (2021) <ul style="list-style-type: none"> • JPR 11

2-12: Assembling an Artificial High Directional (AHD) and Applicable Raising and Lowering Systems

Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
 - Paragraph 7.2.12

Job Performance Requirement

Assemble an **artificial high directional (AHD)** for application of a high point of attachment to a confined space rescue system given **an AHD**, additional rescuers to assist in the assembly, and a vertically oriented space with a portal above which to set the **AHD**, so that the **AHD** is assembled in accordance with the manufacturer’s recommendations, rescue systems are attached and secured to the **AHD** and the **AHD** provides enough clearance above the portal to fully extract a victim packaged in a vertically oriented litter.

Requisite Knowledge

1. **Describe** capabilities and limitations of **AHDs** in confined space rescue
2. **Describe** assembly procedures for the **AHD** utilized
3. **Describe** methods for stabilization of **AHDs** to prevent unnecessary movement
4. **Describe** force application to **AHDs** and proper direction of that force to prevent movement or collapse

Requisite Skills

1. Assemble the **AHD** with assistance of other rescuers
2. Attach the rescue system to the **AHD**
3. Position the device high enough to provide adequate clearance area above the portal to allow removal of a vertically oriented litter
4. Operate the system in a way that will keep the **AHD** stable while lifting a load

Content Modification

Block	Modification	Justification
Topic Title	Changed to “Assembling an Artificial High Directional (AHD) and Applicable Raising and Lowering Systems”.	The intent/action is the same, but this is the terminology used in the field in California. (2021)
CTS	Changed all references to “anchor device” and “portable anchor device” to “AHD”.	The intent/action is the same, but this is the terminology used in the field in California. (2021)

Cross Reference

Course Plan	Training Record	Task Book
Confined Space Rescue: Technician <ul style="list-style-type: none">• Topic 9-7	Confined Space Rescue Technician (2021) <ul style="list-style-type: none">• 12	Confined Space Rescue Technician Instructor (2021) <ul style="list-style-type: none">• JPR 12

2-13: Preparing for Entry into Vertically Oriented Confined Space

Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
 - Paragraph 7.2.13

Job Performance Requirement

Prepare for entry into vertically oriented confined space, given a confined space rescue tool **cache** and a confined space, so that the internal configuration of the space is clear and unobstructed so retrieval systems can be utilized for rescuers without possibility of entanglement, the victim can be easily seen from the outside of the space's primary access opening rescuers can pass easily through the access/egress opening(s) with room to spare when PPE is worn in the manner recommended by the manufacturer, the space can accommodate two or more rescuers in addition to the victim, all hazards in and around the confined space have been identified and can be mitigated by using respiratory protection so that victim communication is established when possible, continuous atmospheric monitoring is initiated, rescuer readiness is verified, rescuers' limitations are identified and evaluated, rescuers unsuitable to entry operations are reassigned and replaced, route and methods of confined space entry are determined, and rescuer evacuation is planned.

Requisite Knowledge

1. **Describe** effects of hazardous atmospheres on victims and rescuers
2. **Describe** types and operation of required hazard-specific monitoring equipment
3. **Describe** organization protocol for medical and psychological evaluation related to entry
4. **Describe** methods of entry into confined spaces in accordance with operational protocols
5. **Describe** rescuer evaluation methods

Requisite Skills

1. Operate monitoring equipment
2. Perform rescuer pre-entry medical exam
3. Evaluate rescuer capabilities and limitations
4. Identify victim communication needs
5. Evaluate for point and route of confined space entry
6. Select evacuation methods

Content Modification

Block	Modification	Justification
JPR	Changed "kit" to "cache".	A kit is a subset of a larger cache, which is more appropriate for this JPR. (2021)

Cross Reference

Course Plan	Training Record	Task Book
Confined Space Rescue: Technician <ul style="list-style-type: none">• Topic 3-1 (RK 1)• Topic 4-2 (RK 3, 4, 5)• Topic 9-6 (RK 2, 4, RS 1-6)	Confined Space Rescue Technician (2021) <ul style="list-style-type: none">• 13	Confined Space Rescue Technician Instructor (2021) <ul style="list-style-type: none">• JPR 13

2-14: Entering a Vertically Oriented Confined Space for Rescue

Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
 - Paragraph 7.2.14

Job Performance Requirement

Enter a vertically oriented confined space for rescue, given PPE; safety, communication, operational protocols; a confined space rescue tool **cache**; and a confined space, so that the internal configuration of the space is clear and unobstructed so retrieval systems can be utilized for rescuers without possibility of entanglement, the victim can be easily seen from the outside of the space's primary access opening, rescuers can pass easily through the access/egress opening(s) with room to spare when PPE is worn in the manner recommended by the manufacturer, the space can accommodate two or more rescuers in addition to the victim, all hazards in and around the confined space have been identified and can be mitigated by using respiratory protection so that the victim is contacted, controlled confined space entry is established and maintained, atmosphere is continuously monitored, the victim's mental and physical conditions are further assessed, patient care is initiated, the patient is packaged to restrictions of the space, and patient removal can be initiated.

Requisite Knowledge

1. **Describe** principles of operation for atmospheric monitoring equipment
2. **Describe** methods for patient care in confined spaces
3. **Describe** safety, communication, medical, and operational protocols
4. **Describe** controlled confined space entry and egress procedures for confined spaces

Requisite Skills

1. Use and apply PPE and rescue-related systems and equipment
2. Implement safety, communication, and operational protocols
3. Use medical protocols to determine treatment priorities
4. Use medical equipment specific to confined space victim needs
5. Reassess and confirm mode of operation

Content Modification

Block	Modification	Justification
JPR	Changed "kit" to "cache".	A kit is a subset of a larger cache, which is more appropriate for this JPR. (2021)

Cross Reference

Course Plan	Training Record	Task Book
Confined Space Rescue: Technician <ul style="list-style-type: none">• Topic 5-1 (RK 1-4)• Topic 10-3 (RK 1-3, RS 1-5)	Confined Space Rescue Technician (2021) <ul style="list-style-type: none">• 14	Confined Space Rescue Technician Instructor (2021) <ul style="list-style-type: none">• JPR 14

2-15: Packaging the Victim in a Litter for Removal from a Vertically Oriented Confined Space

Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
 - Paragraph 7.2.15

Job Performance Requirement

Package the victim in a litter for removal from a vertically oriented confined space, given a confined space rescue tool **cache**, a vertically oriented litter and associated rigging equipment, a work area that provides enough vertical clearance to extract a vertically oriented litter and a victim, so that the victim is secured to the litter, the litter is secured to the rescue system in a vertically configuration, the litter will pass through the portal, the litter can be raised high enough to clear the portal, the victim is protected during the extraction, and further harm to the victim is minimized.

Requisite Knowledge

1. **Describe** spinal management techniques
2. **Describe** victim packaging techniques
3. **Describe** how to use low-profile packaging devices and equipment
4. **Describe** methods to reduce or avoid damage to equipment
5. **Describe** similarities and differences between packaging for confined spaces and for other types of rescue

Requisite Skills

1. Immobilize a victim's spine
2. Package victims in litters, low-profile devices, and litters
3. Recognize and perform basic management of various traumatic injuries and medical conditions
4. Support respiratory efforts
5. Perform local treatment modalities as required based on the environment

Content Modification

Block	Modification	Justification
JPR	Changed "kit" to "cache".	A kit is a subset of a larger cache, which is more appropriate for this JPR. (2021)

Cross Reference

Course Plan	Training Record	Task Book
Confined Space Rescue: Technician <ul style="list-style-type: none"> • Topic 11-5 	Confined Space Rescue Technician (2021) <ul style="list-style-type: none"> • 15 	Confined Space Rescue Technician Instructor (2021) <ul style="list-style-type: none"> • JPR 15

2-16: Removing a Victim Requiring Immediate Extraction to Prevent Imminent Death

Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
 - Paragraph 7.2.16

Job Performance Requirement

Remove a victim from a confined space, given a confined space rescue tool **cache**, victim harnesses and rigging, a victim who has been discovered to be in respiratory arrest, and conditions inside the space requiring immediate extraction to prevent imminent death of the victim, so that the victim is rapidly secured in an extraction harness, the harness is secured to the rescue system, and the victim is removed from the space.

Requisite Knowledge

1. **Describe** rapid victim harness application techniques
2. **Describe** methods to reduce or avoid damage to equipment
3. **Describe** similarities and differences between packaging for conditions of imminent danger as compared to those that are stable

Requisite Skills

1. Recognize the immediate threat and need for rapid extraction,
2. Rapid application of victim harnesses and rigging to rescue systems

Content Modification

Block	Modification	Justification
Topic Title	Changed to “Removing a Victim Requiring Immediate Extraction to Prevent Imminent Death”.	The core of this issue is imminent death, not the vertical orientation. Rescuers would carry out these actions in either horizontal or vertical scenarios. It should apply to both. (2021)
JPR	Removed “vertically oriented”.	The core of this issue is imminent death, not the vertical orientation. Rescuers would carry out these actions in either horizontal or vertical scenarios. It should apply to both. (2021)
JPR	Changed “kit” to “cache”.	A kit is a subset of a larger cache, which is more appropriate for this JPR. (2021)

Cross Reference

Course Plan	Training Record	Task Book
Confined Space Rescue: Technician <ul style="list-style-type: none"> • Topic 11-6 	Confined Space Rescue Technician (2021) <ul style="list-style-type: none"> • 16 	Confined Space Rescue Technician Instructor (2021) <ul style="list-style-type: none"> • JPR 16

2-17: Removing a Victim from a Horizontally Oriented Confined Space

Authority

1. Office of the State Fire Marshal

Job Performance Requirement

Remove a victim from a horizontally oriented confined space, given a confined space rescue tool cache, rigging, and a packaged victim, so that the victim is secured to the rescue system, the litter passes through the portal, the victim is protected during the extraction, and further harm to the victim is minimized.

Requisite Knowledge

1. Describe rigging application techniques
2. Describe methods to reduce or avoid damage to equipment

Requisite Skills

1. Apply rigging to assist horizontal movement

Content Modification

Block	Modification	Justification
CTS	Added new certification training standard.	Removal under non-imminent death circumstances is not covered by NFPA but the packaging standards stop short or actual removal. (2021)

Cross Reference

Course Plan	Training Record	Task Book
Confined Space Rescue: Technician <ul style="list-style-type: none"> • Topic 11-7 	Confined Space Rescue Technician (2021) <ul style="list-style-type: none"> • 17 	Confined Space Rescue Technician Instructor (2021) <ul style="list-style-type: none"> • JPR 17

2-18: Removing a Victim from a Vertically Oriented Confined Space

Authority

1. Office of the State Fire Marshal

Job Performance Requirement

Remove a victim from a vertically oriented confined space, given a confined space rescue tool cache, rigging, and a packaged victim, so that the victim is secured to the rescue system, the litter passes through the portal, the victim is protected during the extraction, and further harm to the victim is minimized.

Requisite Knowledge

1. Describe rigging application techniques
2. Describe methods to reduce or avoid damage to equipment

Requisite Skills

1. Apply rigging to assist horizontal movement

Content Modification

Block	Modification	Justification
CTS	Added new certification training standard.	Removal under non-imminent death circumstances is not covered by NFPA but the packaging standards stop short or actual removal. (2021)

Cross Reference

Course Plan	Training Record	Task Book
Confined Space Rescue: Technician <ul style="list-style-type: none"> • Topic 11-8 	Confined Space Rescue Technician (2021) <ul style="list-style-type: none"> • 18 	Confined Space Rescue Technician Instructor (2021) <ul style="list-style-type: none"> • JPR 18

2-19: Removing All Entrants from a Confined Space

Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
 - Paragraph 7.2.17

Job Performance Requirement

Remove all entrants from a confined space, given PPE, rope and related rescue and retrieval systems, personnel to operate rescue and retrieval systems, and a confined space rescue tool *cache*, so that internal obstacles and hazards are negotiated, all persons are extricated from a space in the selected transfer device, the victim and rescuers are decontaminated as necessary, and the victim is delivered to the EMS provider.

Requisite Knowledge

1. *Identify* personnel and equipment resource lists
2. *Describe* specific PPE
3. *Identify* types of confined spaces and their internal obstacles and hazards
4. *Describe* rescue and retrieval systems and equipment
5. *Describe* operational protocols
6. *Describe* medical protocols
7. *Identify* EMS providers
8. *Describe* decontamination procedures

Requisite Skills

1. Select and use PPE
2. Select and operate rescue and retrieval systems used for victim removal
3. Utilize medical equipment
4. Use equipment and procedures for decontamination

Content Modification

Block	Modification	Justification
JPR	Changed “kit” to “cache”.	A kit is a subset of a larger cache, which is more appropriate for this JPR. (2021)

Cross Reference

Course Plan	Training Record	Task Book
Confined Space Rescue: Technician <ul style="list-style-type: none"> • Topic 2-3 (RK 3) • Topic 2-6 (RK 2) • Topic 3-5 (RK 1, 7) • Topic 12-1 (RK 4, 6, 8, RS 2-4) 	Confined Space Rescue Technician (2021) <ul style="list-style-type: none"> • 19 	Confined Space Rescue Technician Instructor (2021) <ul style="list-style-type: none"> • JPR 19

2-20: Terminating a Technical Rescue Operation

Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
 - Paragraph 7.2.18

Job Performance Requirement

Terminate a technical rescue operation, given an incident scenario, assigned resources, and site safety data so that rescuer risk and site safety are managed, scene security is maintained and custody transferred to a responsible party, personnel and resources are returned to a state of readiness, record-keeping and documentation occur, and post-event analysis is conducted.

Requisite Knowledge

1. *Describe* Incident Command functions and resources
2. *Describe* hazard identification and risk management strategies
3. *Describe* logistics and resource management
4. *Describe* personnel accountability systems
5. *Describe* AHJ-specific procedures or protocols related to personnel rehab
6. *Describe record-keeping and documentation requirements (federal, state, AHJ)*

Requisite Skills

1. Hazard recognition
2. Risk analysis
3. Use site control equipment and methods
4. Use data collection and management systems
5. Use asset and personnel tracking systems

Content Modification

Block	Modification	Justification
RK 6	Added new knowledge item.	NFPA does not address record-keeping. (2021)

Cross Reference

Course Plan	Training Record	Task Book
Confined Space Rescue: Technician <ul style="list-style-type: none">• Topic 6-1 (RK 1-6)• Topic 12-2 (RS 1-5)	Confined Space Rescue Technician (2021) <ul style="list-style-type: none">• 20	Confined Space Rescue Technician Instructor (2021) <ul style="list-style-type: none">• JPR 20

Section 3: Technician

3-1: Initiating a Search Inside a Confined Space in Those Areas Not Immediately Visible from the Confined Space Entry Portal

Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
 - Paragraph 7.3.1

Job Performance Requirement

Initiate a search inside a confined space in those areas not immediately visible from the confined space entry portal, given hazard-specific PPE, confined space rescue entrant(s) to perform the search, equipment pertinent to search mission, a confined space, and victim investigative information, so that search parameters are established; the victim profile is established; search result information is acquired and relayed to command; the personnel assignments match their expertise; all victims inside the space are located and identified quickly; applicable technical rescue concerns are managed; risks to searchers are minimized; and all searchers are accounted for.

Requisite Knowledge

1. **Identify** local policies and procedures
2. **Describe** how to operate inside the confined space

Requisite Skills

1. Work inside the confined space
2. Communicate with rescuers outside the confined space portal
3. Perform self-rescue if conditions become untenable (when possible)

Content Modification

Block	Modification	Justification

Cross Reference

Course Plan	Training Record	Task Book
Confined Space Rescue: Technician <ul style="list-style-type: none">• Topic 10-4	Confined Space Rescue Technician (2021) <ul style="list-style-type: none">• 21	Confined Space Rescue Technician Instructor (2021) <ul style="list-style-type: none">• JPR 21

3-2: Preplanning a Confined Space Incident

Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
 - Paragraph 7.3.2

Job Performance Requirement

Preplan a confined space incident, given applicable guidelines and regulations and a preplan form, so that a standard approach is used during a confined space rescue emergency, hazards are recognized and documented, isolation methods are identified and documented, all accesses to the location of the confined space entry opening are identified and documented, all types of confined space entry openings are identified and documented, and internal configurations and special resource needs are documented for future rescuer use.

Requisite Knowledge

1. *Identify* operational protocols
2. *Identify* specific preplan forms
3. *Identify* types of hazards common to jurisdictional boundaries
4. *Identify* hazards that should and must be identified on preplans
5. *Identify* isolation methods and issues related to preplanning
6. *Identify* issues and constraints relating to the types of confined space openings
7. *Identify* internal configuration special resource needs of a confined space
8. *Identify* applicable legal issues

Requisite Skills

1. Select a specific preplan form
2. Draft or draw a sketch of confined spaces
3. Complete supplied forms
4. Identify and evaluate various configurations of confined spaces, access points, confined space entry openings, isolation procedures, and energy control locations
5. Recognize general and site-specific hazards
6. Document all data
7. Apply all regulatory compliance references

Content Modification

Block	Modification	Justification

Cross Reference

Course Plan	Training Record	Task Book
Confined Space Rescue: Technician <ul style="list-style-type: none">• Topic 7-1	Confined Space Rescue Technician (2021) <ul style="list-style-type: none">• 22	Confined Space Rescue Technician Instructor (2021) <ul style="list-style-type: none">• JPR 22

3-3: Applying and Using Supplied-air Respirators (SARs) as a Rescue Entrant

Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
 - Paragraph 7.3.3

Job Performance Requirement

Apply and use supplied-air respirators (SARs) as a rescue entrant, given a confined space incident requiring respiratory protection, a rescue assignment, a means of entry into and exit from the space, a rescue attendant outside the space, personnel to manage air lines outside of the space, a SAR, a breathing air supply system with air lines to supply the SAR, breathing apparatus cylinders, personnel to monitor and maintain the air supply system, and a confined space, so that the internal configuration of the space will not create entanglement hazards when using air lines, the victim cannot be seen from the outside of the space's primary access opening, the portal size and configuration will not allow a rescuer to pass through the access/egress opening(s) using SCBA when worn in the manner recommended by the manufacturer, all hazards in and around the confined space have been identified and might be mitigated by using respiratory protection so that the rescue entrant passes through the portal without removal of the SAR and the assigned rescue duty is performed.

Requisite Knowledge

1. **Describe** capabilities and limitations of SAR in confined space rescue
2. **Describe** breathing air conservation
3. **Describe** air-line management
4. **Describe** communication methods appropriate to breathing apparatus use in confined spaces

Requisite Skill

1. Use SAR in a confined space entry for rescue
2. Use breathing techniques that will conserve the air supply
3. Manage air lines while working within the space
4. Use communication methods that effectively convey information between rescuers inside and outside of the space

Content Modification

Block	Modification	Justification

Cross Reference

Course Plan	Training Record	Task Book
Confined Space Rescue: Technician <ul style="list-style-type: none">• Topic 4-1 (RK 1-4)• Topic 9-2 (all)	Confined Space Rescue Technician (2021) <ul style="list-style-type: none">• 23	Confined Space Rescue Technician Instructor (2021) <ul style="list-style-type: none">• JPR 23

3-4: Performing Short Spinal Immobilization of a Victim Inside a Confined Space

Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
 - Paragraph 7.3.4

Job Performance Requirement

Perform short spinal immobilization of a victim inside a confined space, given a confined space incident requiring spinal precautions, a stable victim, a short spinal immobilization device, a second rescuer to assist, and a confined space, so that the portal size or internal configuration will not allow the application of a full spine immobilization device, all hazards in and around the confined space have been identified and might be mitigated by using respiratory protection so that the victim's cervical spine is manually maintained in a neutral position immediately on contact and maintained until the short immobilization device is completely applied and secure, victim movement onto the spinal immobilization device creates minimal manipulation of the spine, void spaces between the victim and immobilization device are padded as appropriate, victim securement to the immobilization device will reduce spinal manipulation during movement, and applicable local treatment protocols are followed.

Requisite Knowledge

1. *Describe* capabilities and limitations of short spine immobilization equipment for victims in confined space rescue
2. *Describe* methods for movement of a victim onto a long spine immobilizer with minimum spinal manipulation
3. *Describe* methods for securement of a victim onto a short spine immobilizer
4. *Describe* methods for securement of a victim's head on a short spine immobilizer
5. *Describe* other short spinal immobilization treatment modalities and procedures

Requisite Skills

1. Maintain manual immobilization of a victim's head during the immobilization process
2. Assist in moving the victim to a short spine immobilizer with only two persons with minimal spinal manipulation
3. Apply void space padding as needed based on the immobilization device
4. Apply and secure the victim's upper body and head to a short spinal immobilization device

Content Modification

Block	Modification	Justification

Cross Reference

Course Plan	Training Record	Task Book
Confined Space Rescue: Technician <ul style="list-style-type: none">• Topic 11-3	Confined Space Rescue Technician (2021) <ul style="list-style-type: none">• 24	Confined Space Rescue Technician Instructor (2021) <ul style="list-style-type: none">• JPR 24

3-5: Preparing for Entry into the Confined Space with a Hazardous Atmosphere

Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
 - Paragraph 7.3.5

Job Performance Requirement

Prepare for entry into the confined space with a hazardous atmosphere, given a confined space with a hazardous atmosphere, atmosphere-supplied respirators, and a confined space tool *cache*, so that entry can be made into a confined space that contains one or more of the following characteristics: the internal configuration of the space could create entanglement hazards and retrieval might not be effective, the victim cannot be seen from the outside of the space's primary access opening, the portal size and configuration will not allow a rescuer to pass through the access/egress opening(s) using SCBA when worn in the manner recommended by the manufacturer, all hazards in and around the confined space have been identified and can be mitigated by using respiratory protection so that continuous atmospheric monitoring is initiated, the atmosphere is assessed to be manageable with atmosphere-supplying respirators, victim communication is established when possible, atmosphere-supplying respirators are used by rescue entrants while within the space, atmosphere-supplying respirators are rapidly applied to the victim, rescuer readiness is verified, rescuers' limitations are identified and evaluated, rescuers unsuitable to entry operations are reassigned and replaced, route and methods of confined space entry are determined, and rescuer evacuation is planned.

Requisite Knowledge

1. *Describe* effects of hazardous atmospheres on victims and rescuers
2. *Describe* types and operation of required hazard-specific monitoring equipment
3. *Describe* types and operation of required atmosphere supplying respirators
4. *Describe* organization protocol for medical and psychological evaluation related to confined space entry
5. *Describe* methods of entry into confined spaces with hazardous atmospheres in accordance with operational protocols
6. *Describe* rescuer evaluation methods

Requisite Skills

1. Operate monitoring equipment
2. Perform rescuer pre-entry medical exam
3. Evaluate rescuer capabilities and limitations
4. Identify victim communication needs
5. Evaluate for point and route of confined space entry
6. Select evacuation methods

Content Modification

Block	Modification	Justification
JPR	Changed “kit” to “cache”.	A kit is a subset of a larger cache, which is more appropriate for this JPR. (2021)

Cross Reference

Course Plan	Training Record	Task Book
Confined Space Rescue: Technician <ul style="list-style-type: none"> • Topic 3-1 (RK 1) • Topic 4-2 (RK 4, 5, 6) • Topic 9-4 (RK 2, 3, 5, RS 1-6) 	Confined Space Rescue Technician (2021) <ul style="list-style-type: none"> • 25 	Confined Space Rescue Technician Instructor (2021) <ul style="list-style-type: none"> • JPR 25

3-6: Entering a Confined Space with Atmospheric Hazards

Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
 - Paragraph 7.3.6

Job Performance Requirement

Enter a confined space with atmospheric hazards, given hazard-specific PPE; safety, communication, and operational protocols; a confined space with a hazardous atmosphere; a confined space rescue tool **cache** so that the victim is contacted; and a confined space, so that the internal configuration of the space could create entanglement hazards and retrieval might not be effective, the victim cannot be seen from the outside of the space's primary access opening, the portal size and configuration will not allow a rescuer to pass through the access/egress opening(s) using SCBA when worn in the manner recommended by the manufacturer, all hazards in and around the confined space have been identified and can be mitigated by using respiratory protection so that a controlled confined space entry is established and maintained, the atmosphere is continuously monitored, the rescuers and patient(s) are protected from the hazards, the victim's mental and physical conditions are further assessed, patient care is initiated, the patient is packaged to restrictions of the space, and patient removal can be initiated.

Requisite Knowledge

1. **Describe** principles of operation for atmospheric monitoring equipment
2. **Describe** methods for patient care in confined spaces
3. **Describe** application of hazard-specific PPE
4. **Describe** safety, communication, medical, and operational protocols
5. **Describe** controlled confined space entry and egress procedures for confined spaces

Requisite Skills

1. Use and apply hazard-specific PPE and rescue-related systems and equipment
2. Implement safety, communication, and operational protocols
3. Use medical protocols to determine treatment priorities
4. Use medical equipment specific to confined space victim needs
5. Reassess and confirm mode of operation

Content Modification

Block	Modification	Justification
JPR	Changed "kit" to "cache".	A kit is a subset of a larger cache, which is more appropriate for this JPR. (2021)

Cross Reference

Course Plan	Training Record	Task Book
Confined Space Rescue: Technician <ul style="list-style-type: none">• Topic 2-6 (RK 3)• Topic 5-1 (RK 1, 2, 4, 5)• Topic 10-1 (RK 1, 2, 4, RS 1-5)	Confined Space Rescue Technician (2021) <ul style="list-style-type: none">• 26	Confined Space Rescue Technician Instructor (2021) <ul style="list-style-type: none">• JPR 26



Awareness

Course Plan

Course Details

CTS Guide:	Confined Space Rescue Technician (2021)
Description:	This course provides the skills and knowledge needed for the awareness level confined space rescue technician to support an operations- or technician-level incident including sizing up an incident, identifying and isolating hazards, initiating a search in areas immediately adjacent to a confined space, communicating with victims, and performing nonentry rescue. This course does not qualify participants to make permit-required entries.
Designed For:	Personnel preparing to pursue technical rescue certification (pending) and all emergency personnel with confined spaces within their jurisdiction
Prerequisites:	IS-100, IS-200, IS-700, IS-800 (FEMA)*
Standard:	Attend and participate in all course sections Successful completion of all skills identified on the Training Record.
Hours (Total):	8 hours (6.5 lecture / 1.5 application)
Maximum Class Size:	50
Instructor Level:	SFT Registered Confined Space Rescue Awareness Instructor
Instructor/Student Ratio:	1:50 (lecture)
Restrictions:	See Equipment, Facilities, and Personnel requirements
SFT Designation:	FSTEP

* Courses taught by outside agencies often change names and numbers. Students should enroll in the most current version of any course, even if the course name or number has change.

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Required Resources

Instructor Resources

To teach this course, instructors need:

- Cal-OSHA CCR Title 8 Article 108 § 5157
- NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (physical or digital access to current edition)
- NFPA 1670: Standard on Operations and Training for Technical Search and Rescue Incidents (physical or digital access to current edition)
- AHJ policies and procedures

To teach this course, instructors may choose to use:

- *Confined Space Entry and Rescue Manual* (CMC Rescue, Inc., revised 2nd edition, ISBN: 978-0-96183-374-9)
- Manufacturer videos, manuals, and directions for equipment use

Online Instructor Resources

The following instructor resources are available online at

<https://osfm.fire.ca.gov/divisions/state-fire-training/cfstes-professional-certification/>:

- Not applicable

Student Resources

To participate in this course, students need:

- Any textbook(s) required by the instructor

Facilities, Equipment, and Personnel

Facilities

The following facilities are required to deliver this course:

- Standard learning environment or facility, which may include:
 - Writing board or paper easel chart
 - Markers, erasers
 - Amplification devices
 - Projector and screen
 - Laptop or tablet with presentation or other viewing software
 - Internet access with appropriate broadband capabilities

Time Table

Segment	Lecture	Application	Unit Total
Unit 1: Introduction			
Topic 1-1: Orientation and Administration	0.5	0.0	
Unit 1 Totals	0.5	0.0	0.5
Unit 2: Overview			
Topic 2-1: Identifying Regulations and Standards	0.5	0.0	
Topic 2-2: Describing Lessons Learned	0.5	0.0	
Topic 2-3: Defining a Confined Space	0.25	0.0	
Topic 2-4: Defining a Permit-Required Confined Space	0.25	0.0	
Topic 2-5: Describing the Required Positions and Elements of an Entry Permit	0.5	0.25	
Unit 2 Totals	2.0	0.25	2.25
Unit 3: Confined Space Incidents			
Topic 3-1: Supporting an Operations- or Technician-Level Incident	0.5	0.0	
Topic 3-2: Sizing Up a Confined Space Rescue Incident	0.5	0.0	
Topic 3-3: Recognizing the Need for Technical Rescue Resources	0.5	0.25	
Topic 3-4: Identifying Hazards	0.5	0.0	
Topic 3-5: Initiating Isolation Procedures	0.5	0.25	
Topic 3-6: Initiating a Search an Areas Immediately Adjacent to a Confined Space	0.5	0.25	
Topic 3-7: Communicating with Victim(s)	0.5	0.0	
Topic 3-8: Performing Nonentry Rescue	0.5	0.5	
Unit 3 Totals	4.0	1.25	5.25
Formative Assessments			
Determined by AHJ or educational institution	0.0	0.0	0.0
Summative Assessment			
Determined by AHJ or educational institution	0.0	0.0	0.0
Course Totals	6.5	1.5	8.0

Time Table Key

1. The Time Table documents the amount of time required to deliver the content included in the course plan.
2. Time is documented using the quarter system: 15 min. = .25 / 30 min. = .50 / 45 min. = .75 / 60 min. = 1.0.
3. The Course Totals do not reflect time for lunch (1 hour) or breaks (10 minutes per each 50 minutes of instruction or assessment). It is the instructor's responsibility to add this time based on the course delivery schedule.
4. Application (activities, skills exercises, and formative testing) time will vary depending on the number of students enrolled. The Application time documented is based on the maximum class size identified in the Course Details section.

The following is a breakdown of what a program might look like if there were fewer students. These estimates may need to be adjusted based on student abilities.

- 40 – 50 Students = 260 hours
 - 30 – 40 Students = 180 hours
 - 20 – 30 Students = 120 hours
 - 1 – 20 Students = 60 hours
5. Summative Assessments are determined and scheduled by the authority having jurisdiction. These are not the written or psychomotor State Fire Training certification exams. These are in-class assessments to evaluate student progress and calculate course grades.

Unit 1: Introduction

Topic 1-1: Orientation and Administration

Terminal Learning Objective

At the end of this topic, a student will be able to identify facility and classroom requirements and identify course objectives, events, requirements, assignments, activities, skills exercises, resources, evaluation methods, and participation requirements in the course syllabus.

Enabling Learning Objectives

1. Identify facility requirements
 - Restroom locations
 - Food locations
 - Smoking locations
 - Emergency procedures
2. Identify classroom requirements
 - Start and end times
 - Breaks
 - Electronic device policies
 - Special needs and accommodations
 - Other requirements as applicable
3. Review course syllabus
 - Course objectives
 - Calendar of events
 - Course requirements
 - Student evaluation process
 - Assignments
 - Activities
 - Required student resources
 - Class participation requirements

Discussion Questions

1. Determined by instructor

Application

1. Have students complete all required registration forms.

Unit 2: Overview

Topic 2-1: Identifying Regulations and Standards

Terminal Learning Objective

At the end of this topic a student, given applicable regulations and standards, will be able to identify and apply confined space regulations and standards during confined space rescue incidents and operations.

Enabling Learning Objectives

1. Describe the difference between a regulation or law and a standard
 - Regulation or law (requirement)
 - Titles
 - Codes
 - Regulations
 - Laws
 - Acts
 - Standards (guidance)
 - Guidelines
 - Standards
 - Policies
 - Procedures
 - Best practices
2. Identify applicable industry regulations
 - Federal
 - Code of Federal Regulations, Permit-Required Confined Spaces, 26 CFR 1901.146
 - State
 - California Code of Regulations, General Industry Safety Orders, Title 8, Article 108, Sections 5156, 5157, 5158
3. Identify applicable industry standards
 - Professional organizations
 - NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (current edition)
 - NFPA 1670: Standard on Operations and Training for Technical Search and Rescue Incidents (current edition)
 - AHJ
 - Policies and procedures

Discussion Questions

1. Which are mandatory, laws or standards?
2. Which are recommended, laws or standards?

Application

1. Given a collection of documents, have students identify which are mandatory and which are guidance.

Instructor Resources

1. None

CTS Guide Reference: None

Topic 2-2: Describing Lessons Learned

Terminal Learning Objective

At the end of this topic a student, given reports and industry standards, will be able to describe historical confined space rescue incidents and identify risks to rescuers, bystanders, and victims so that lessons learned can be applied to future rescue incidents.

Enabling Learning Objectives

1. Identify confined space rescue training levels
 - Awareness
 - Operations
 - Technician
2. Identify historical incidents and dangers
 - Historical and current injury and death statistics
 - Most deaths are “would-be rescuers”

Discussion Questions

1. Who was the most likely to be injured or killed in a rescue incident?
2. What is the difference between awareness and technician level training?

Application

1. Given case studies or confined space incident statistics and reports, have students identify common hazards, risks, and causes of injury and death.

Instructor Notes

1. ELO1: SFT teaches Operations and Technician together in Confined Space Rescue Technician (2021). All technicians have operations level training.
2. ELO2: Use the following resources to identify historical incidents
 - [Worker Deaths in Confined Spaces: A Summary of NIOSH Surveillance and Investigative Findings \(NIOSH\)](#)
 - [Fatality Assessment and Control Evaluation \(FACE\) Program Investigations \(NIOSH\)](#)
 - U.S. Department of Health and Human Services
 - U.S. Public Health Service
 - Centers for Disease Control and Prevention
 - [Confined Space Guide for General Industry, California Department of Industrial Relations \(2019\)](#)

CTS Guide Reference: None

Topic 2-3: Defining a Confined Space

Terminal Learning Objective

At the end of this topic a student, given Cal-OSHA CCR Title 8 Article 108 § 5157, will be able to define a confined space in accordance with state standards.

Enabling Learning Objectives

1. Define the three requirements of a confined space (all three must be present)
 - Is large enough and so configured that an employee can bodily enter and perform assigned work
 - Has limited or restricted means for entry or exit
 - Is not designed for continuous employee occupancy
2. Identify examples of confined spaces
 - Tanks
 - Vessels
 - Silos
 - Storage Bins
 - Hoppers
 - Vaults
 - Pits

Discussion Questions

1. What is the definition of a confined space?
2. What confined spaces might you encounter in your AHJ

Application

1. Determined by instructor

Instructor Notes

1. None

CTS Guide Reference: None

Topic 2-4: Defining a Permit-Required Confined Space

Terminal Learning Objective

At the end of this topic a student, given Cal-OSHA CCR Title 8 Article 108 § 5157, will be able to define a permit-required confined space in accordance with state standards.

Enabling Learning Objectives

1. Define the conditions that indicate a permit-required confined space (any one of the four must be present)
 - Contains or has a potential to contain a hazardous atmosphere
 - Contains a material that has the potential for engulfing an entrant
 - Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor which slopes downward and tapers to a smaller cross-section
 - Contains any other recognized serious safety or health hazard

Discussion Questions

1. What is the difference between a confined space and a permit-required confined space?
2. To be permit required, does a space need to be confined?
3. What permit-required confined spaces might you encounter in your AHJ?

Application

1. Determined by instructor

Instructor Notes

1. None

CTS Guide Reference: None

Topic 2-5: Describing the Required Positions and Elements of an Entry Permit

Terminal Learning Objective

At the end of this topic a student, given Cal-OSHA CCR Title 8 Article 108 § 5157, will be able to describe the mandatory positions and components of a permit-required confined-space entry.

Enabling Learning Objectives

1. Describe the duties and responsibilities of:
 - Authorized entrant
 - Attendant
 - Entry supervisor
2. Identify the minimum requirements on a confined-space entry permit

Discussion Questions

1. What are the mandatory components of a confined space entry permit?
2. What is the minimum training required of an entry supervisor?

Application

1. Given a confined space incident and images, have students complete a sample confined space entry permit.

Instructor Notes

1. Permit requirements are documented in Cal-OSHA CCR Title 8 Article 108 § 5157 and any other applicable regulations.

CTS Guide Reference: None

Unit 3: Confined Space Incidents

Topic 3-1: Supporting an Operations- or Technician-Level Incident

Terminal Learning Objective

At the end of this topic a student, given an incident, an assignment, an incident action plan, and resources from the tool cache, will be able to support an operations- or technician-level incident so that the assignment is carried out, progress is reported to command, environmental concerns are managed, personnel rehabilitation is facilitated, and the incident action plan is supported.

Enabling Learning Objectives

1. Describe AHJ operational protocols
2. Describe how to support an incident
 - Hazard recognition
 - Incident management
 - PPE selection
 - Resource selection and use
 - Scene support requirements
3. Apply operational protocols
4. Function within an incident management system
5. Follow and implement an incident action plan
6. Report the task progress status to a supervisor or incident command

Discussion Questions

1. What are your AHJ's standard operating guidelines for confined space rescue?
2. What resources are available in your area?
3. What is appropriate PPE for size up?

Application

1. Determined by instructor

Instructor Notes

1. None

CTS Guide Reference: CTS 1-7

Topic 3-2: Sizing Up a Confined Space Rescue Incident

Terminal Learning Objective

At the end of this topic a student, given background information and applicable reference materials, will be able to size up a confined space rescue incident so that the scope of the rescue is determined, the number of victims is identified, the last reported location of all the victims is established, witnesses and reporting parties are identified and interviewed, resource needs are assessed, primary search parameters are identified, and information required to develop an initial incident action plan is obtained.

Enabling Learning Objectives

1. Identify types of reference materials and their uses
2. Identify availability, and capability of the resources
3. Identify elements of an incident action plan and related information
4. Describe the relationship of the size-up to the incident management system
5. Identify information gathering techniques and how that information is used in the size-up process
6. Identify basic research criteria for confined space rescue incidents
7. Gather information
8. Use interview techniques
9. Relay information
10. Use information-gathering sources
11. Read technical reference materials

Discussion Questions

1. What are your agency's size-up considerations?
2. What trigger points should cause you to reassess an incident?

Application

1. Determined by Instructor

Instructor Notes

1. None

CTS Guide Reference: CTS 1-5

Topic 3-3: Recognizing the Need for Technical Rescue Resources

Terminal Learning Objective

At the end of this topic a student, given AHJ guidelines, will be able to recognize the need for technical rescue resources at an operations- or technician-level incident so that the need for additional resources is identified, the response system is initiated, the scene is secured and rendered safe until additional resources arrive, and awareness-level personnel are incorporated into the operational plan.

Enabling Learning Objectives

1. Describe operational protocols
2. Identify specific planning forms
3. Describe types of incidents common to the AHJ
4. Identify hazards
5. Identify types of resources
 - Hazmat
 - Rescue
 - Medical
 - Decontamination
 - Rehabilitation
 - Law enforcement
 - Site representatives
 - Public information officer
 - Logistics
 - Utilities/public works
6. Identify needed resources
 - Personnel
 - Roles
 - Quantity
 - Rotations
 - Equipment
 - PPE, including chemical protective clothing
 - Respiratory protection
 - Harnesses
 - Communications equipment
 - High-point anchor
 - Retrieval systems
 - Monitoring devices
 - Ventilation
 - Lighting
 - Rescue tools
7. Describe incident support operations and resources
8. Describe safety measures
9. Apply operational protocols
10. Select specific planning forms based on types of hazards within the AHJ

11. Request support and resources
12. Determine required safety measures

Discussion Questions

1. What types of resources might be required to support a confined space incident?
2. Given the number of potential resources, what logistical needs should you consider?

Application

1. Given sample confined space rescue incidents, have students identify the necessary resources required to support the rescue operation.

Instructor Notes

1. None

CTS Guide Reference: CTS 1-6

Topic 3-4: Identifying Hazards

Terminal Learning Objective

At the end of this topic a student, given a confined space incident and technical resources, will be able to identify all incident hazards so that hazards can be mitigated prior to entry.

Enabling Learning Objectives

1. Describe hazards commonly found at confined space incidents
 - Atmospheric hazards
 - Oxygen deficient
 - Oxygen enriched
 - Flammability
 - Airborne combustible dust
 - Toxicity
 - Engulfment hazards
 - Finely divided solids
 - Liquids
 - Physical/mechanical hazards
 - Environmental hazards
 - High temperature
 - Cryogenics
 - Corrosive hazards
 - Radiological
 - Biological hazards
 - Psychological hazards
2. Describe basic physical properties of contaminants
3. Describe signs, symptoms, and behavioral impacts of hazard exposure
4. Identify types and use of technical references
 - Department of Transportation Emergency Response Guidebook (DOT ERG)
 - Safety Data Sheets (SDS)
 - Other site work permits (including site-specific entry permits)

Discussion Questions

1. What hazards might you encounter in confined spaces affiliated with different industries?
2. What hazards might you find in confined spaces found in your AHJ?
3. How can a hazard inside a confined space become a hazard in the area adjacent to the confined space?
4. What are the signs, symptoms, and behavioral effects of exposure to atmospheric hazards?
5. How would these hazards affect you as a first responder?

Application

1. Determined by instructor

Instructor Notes

1. None

CTS Guide Reference: CTS 1-1

Topic 3-5: Initiating Isolation Procedures

Terminal Learning Objective

At the end of this topic a student, given scene control barriers, personal protective equipment (PPE), requisite equipment, and available specialized resources, will be able to initiate isolation procedures for a specific confined space incident so that all hazards are identified; unauthorized entry to the confined space and adjacent areas are controlled; resource application fits the operational requirements; hazard isolation is considered; risks to rescuers, bystanders, and victims are minimized; and rescue time constraints are taken into account.

Enabling Learning Objectives

1. Describe resource capabilities and limitations
2. Describe methods for controlling access to the scene
3. Describe isolation terminology and methods
 - Lockout/tag out
 - Shut down system
 - Isolation
 - Apply lockout/tagout device
 - Control stored energy
4. Describe how to operate control and mitigation equipment
 - Atmospheric monitoring
 - Equipment
 - Techniques
 - Common problems and way to avoid or overcome them
 - Ventilation
 - Equipment
 - Techniques
 - Common problems and way to avoid or overcome them
5. Identify types of technical references
6. Identify resource capabilities and limitations
7. Identify potential hazards to rescuers and bystanders
8. Identify potential paths for entry to the confined space and its adjacent areas
9. Utilize scene entry control methods
10. Place scene control barriers
 - Establish control zones
11. Operate control and mitigation equipment

Discussion Questions

1. What are the various isolation procedures?
2. Why is atmospheric monitoring performed?
3. Why is there a need for ventilation?

Application

1. Given visual cues, have students identify different types of isolation, monitoring, and ventilation techniques.

Instructor Notes

1. None

CTS Guide Reference: CTS 1-1

Topic 3-6: Initiating a Search in Areas Immediately Adjacent to a Confined Space

Terminal Learning Objective

At the end of this topic a student, given hazard-specific PPE, equipment pertinent to search mission, a confined space incident location, and victim investigative information, will be able to initiate a search in areas immediately adjacent to the confined space so that search parameters are established, the victim survival profile is established, the access and egress of all people either involved in the search or already within the search area are questioned and the information is updated and relayed to command, the personnel assignments match their expertise, all victims in the areas adjacent to the confined space are located as quickly as possible, applicable technical rescue concerns are managed, risks to searchers are minimized, and all searchers are accounted for.

Enabling Learning Objectives

1. Describe local policies, procedures, and regulations
2. Describe how to operate in the environment surrounding the confined space access area
3. Describe emergency evacuation procedures
4. Operate in the adjacent areas to the confined space incident
5. Perform escape from the area if conditions become untenable

Discussion Questions

1. What areas can you enter and not enter to search as an awareness level responder?
2. What are the evacuation warnings in your AHJ?

Application

1. Given sample confined space rescue incidents and images, have students identify the areas that can and cannot be searched by an awareness-level responder.

Instructor Notes

1. None

CTS Guide Reference: CTS 1-2

Topic 3-7: Communicating with Victim(s)

Terminal Learning Objective

At the end of this topic a student, given a clear environment and a confined space, will be able to communicate with victim(s) so that victim communication is established when possible and information relative to patient condition is documented and conveyed to incoming confined space rescue resources.

Enabling Learning Objectives

1. Describe victim communication methods appropriate to confined space
2. Describe how to use information acquired for initial victim assessment
3. Use communication methods that are effective from the outside to the inside of a confined space
4. Document and transfer victim information

Discussion Questions

1. What forms of communication should you use to establish a victim's survival profile?
2. What information should you gather as part of establishing a victim profile?

Activities

1. Given sample confined space rescue incidents and images, have students determine survival profile based on:
 - Visual assessment
 - Verbal communications
 - Hazard assessment

Instructor Notes

1. This terminal learning objective applies to nonentry methods of victim communication only. Awareness-level personnel cannot enter a space for rescue.

CTS Guide Reference: CTS 1-3.

Topic 3-8: Performing Nonentry Rescue

Terminal Learning Objective

At the end of this topic a student, given PPE; an anchored retrieval system attached to a victim located inside a confined space with a clear interior; safety, communication, and operational protocols; and a confined space rescue tool cache, will be able to perform nonentry rescue so that the retrieval system is operated to extract the victim, the rescuer is protected from fall hazards when working near unprotected edges, victim communication is established and maintained, the victim is managed through the portal, and patient care is initiated on extraction.

Enabling Learning Objectives

1. Describe principles of operation for nonentry rescue (retrieval) systems and equipment
 - Self-rescue
 - Nonentry rescue
2. Identify risks associated with nonentry rescue
3. Describe methods for fall prevention
4. Describe protocols for:
 - Safety
 - Communication
 - Medical care
 - Operations
5. Use and apply PPE
6. Use and apply fall prevention methods
7. Operate nonentry rescue (retrieval) systems and equipment
8. Implement safety, communication, medical, and operational protocols
9. Assure victim passage through the portal without obstruction

Discussion Questions

1. What are the differences between self-rescue and nonentry rescue?
2. What are some examples of a nonentry rescue?
3. What are some risks associated with a nonentry rescue?

Application

1. Given rescue (retrieval) systems and equipment and a simulated victim, have students retrieve the victim.

Instructor Notes

1. None

CTS Guide Reference: CTS 1-4

How to Read a Course Plan

A course plan identifies the details, logistics, resources, and training and education content for an individual course. Whenever possible, course content is directly tied to a national or state standard. SFT uses the course plan as the training and education standard for an individual course. Individuals at fire agencies, academies, and community colleges use course plans to obtain their institution's consent to offer course and provide credit for their completion. Instructors use course plans to develop syllabi and lesson plans for course delivery.

Course Details

The Course Details segment identifies the logistical information required for planning, scheduling, and delivering a course.

Required Resources

The Required Resources segment identifies the resources, equipment, facilities, and personnel required to deliver the course.

Unit

Each Unit represents a collection of aligned topics. Unit 1 is the same for all SFT courses. An instructor is not required to repeat Unit 1 when teaching multiple courses within a single instructional period or academy.

Topics

Each Topic documents a single Terminal Learning Objective and the instructional activities that support it.

Terminal Learning Objective

A Terminal Learning Objective (TLO) states the instructor's expectations of student performance at the end of a specific lesson or unit. Each TLO includes a task (what the student must be able to do), a condition (the setting and supplies needed), and a standard (how well or to whose specifications the task must be performed). TLOs target the performance required when students are evaluated, not what they will do as part of the course.

Enabling Learning Objectives

The Enabling Learning Objectives (ELO) specify a detailed sequence of student activities that make up the instructional content of a lesson plan. ELOs cover the cognitive, affective, and psychomotor skills students must master to complete the TLO.

Discussion Questions

The Discussion Questions are designed to guide students into a topic or to enhance their understanding of a topic. Instructors may add to or adjust the questions to suit their students.

Application

The Application segment documents experiences that enable students to apply lecture content through cognitive and psychomotor activities, skills exercises, and formative testing. Application experiences included in the course plan are required. Instructors may add additional application experiences to suit their student population if time permits.

Instructor Notes

The Instructor Notes segment documents suggestions and resources to enhance an instructor's ability to teach a specific topic.

CTS Guide Reference

The CTS Guide Reference segment documents the standard(s) from the corresponding Certification Training Standard Guide upon which each topic within the course is based. This segment is eliminated if the course is not based on a standard.

Skill Sheet

The Skill Sheet segment documents the skill sheet that tests the content contained within the topic. This segment is eliminated if the course does not have skill sheets.



Technician

Course Plan

Course Details

- CTS Guide:** Confined Space Rescue Technician (2021)
- Description:** This intensive hands-on course provides the skills and knowledge needed to prepare the confined space rescue technician to respond to confined space emergencies including identifying confined spaces and permit-required confined spaces, the hazards associated with permit required confined spaces, target industries and hazards, state and federal regulations, components of a rescue operation, and the roles and responsibilities of the rescue team.
- Designed For:** Personnel preparing to pursue technical rescue certification (pending) and all emergency personnel with confined spaces within their jurisdiction
- Prerequisites:** Confined Space Rescue: Awareness (SFT)
Rope Rescue Operations* (SFT) **or** Rescue Systems 1 **and** LARRO (SFT)
HazMat First Responder Operations (SFT)
IS-100, IS-200, IS-700, IS-800 (FEMA** – online)
- Standard:** Attend and participate in all course sections
Successful completion of all skills identified on the Training Record
- Hours:** 40 hours
(13.5 lecture / 26.5 application)
- Max Class Size:** 36
- Instructor Level:** SFT Registered Confined Space Rescue Technician Instructor
- Instructor/Student Ratio:** 1:36 (lecture)
1:6 (application)
- Restrictions:** All instructors counted toward student ratios, including application components, must be SFT Registered Confined Space Rescue Technician Instructors.
- SFT Designation:** FSTEP

* If the student has completed a Rope Rescue Operations course through FEMA or another entity, the student shall show proof of completion of the Ladder Module to the Registered Instructor.

** Courses taught by outside agencies often change names and numbers. Students should enroll in the most current version of any course, even if the course name or number has changed.

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Required Resources

Instructor Resources

To teach this course, instructors need:

- *Confined Space Entry and Rescue Manual* (CMC Rescue, Inc., revised 2nd edition, ISBN: 978-0-96183-374-9)
- NFPA 1006: Standard for Technical Rescue Personnel (2021) (physical or digital access to current edition)
- Cal-OSHA CCR Title 8 Article 108 § 5157
- Manufacturer videos, manuals, and directions for equipment use
- Personal protective equipment (PPE)

Online Instructor Resources

The following instructor resources are available online at

<https://osfm.fire.ca.gov/divisions/state-fire-training/cfstes-professional-certification/>

- None

Student Resources

To participate in this course, students need:

- *Confined Space Entry and Rescue Manual* (CMC Rescue, Inc., revised 2nd edition, ISBN: 978-0-96183-374-9)
- NFPA 1006: Standard for Technical Rescue Personnel (2021) (physical or digital access to current edition)
- Cal-OSHA CCR Title 8 Article 108 § 5157
- Personal Protective Equipment (PPE)
 - Helmet (brush or low profile)
 - Gloves
 - Eye protection
 - Ear protection
 - Long sleeve shirt
 - Pants
 - Safety toe boots
 - Knee pads (optional)
 - A light (e.g., head lamp)

Facilities, Equipment, and Personnel

Facilities

The following facilities are required to deliver this course:

- Standard learning environment or facility, which may include:
 - Writing board or paper easel chart
 - Markers, erasers

- Amplification devices
- Projector and screen
- Laptop or tablet with presentation or other viewing software
- Internet access with appropriate broadband capabilities
- A Confined Space Rescue Technician (CSRT) Training Site with the NFPA 1006 required facilities, structures, work areas, materials, props, tools, and equipment of adequate size, type, and quantity to fully and safely support the cognitive and psychomotor training required to deliver the CSRT curriculum

Equipment

Student safety is of paramount importance when conducting the type of high-risk training associated with this Confined Space Rescue course. The equipment listed below is the minimum for the delivery of this course. The equipment complies with or exceeds the standards listed in NFPA 1983: Standard on Fire Service Life Safety Rope, Harness, and Hardware. The student is responsible for providing all PPE and ensuring that all PPE meets AHJ and site requirements.

The following equipment is required to deliver this course:

Per Module	Equipment
1	Adequate power source (e.g., generator)
1	Extension cord(s) (enough to support operations)
1	Atmospheric monitor w/ pump and required equipment (spare per module recommended)
1	Ventilation – Fan with duct
1	Ventilation – Saddle vent with 90-degree elbow (optional as needed)
2	SCBA (can be provided by student)
1	Supplied air – Manifold
4	Supplied air – Air line (length determined by scenario, max 300’ per entrant)
4	Supplied air – Respirator with escape cylinder
As needed	Supplied air – Breathing air
1	Victim respirator per AHJ
As needed	Mask cleaning materials (per manufacturer specifications)
1	Hardline communication system
4	Air and comm line protective covering per AHJ (optional)
2	Portable radio(s)
1	Artificial high directional
1	Raising and lowering system
1	Victim packaging/retrieval device (rated for horizontal and/or vertical lift)
1	Backboard
1	Spreader bar (optional)

1	Wristlets (sets)
4	Class III harness
1	Rope edge protection (as needed for the scenario, e.g., edge pads, edge rollers)
6	Pulley (one or more must be prusik-minding)
2	Double sheave pulley
1	Descent control device
3	NFPA 1983 "G" rated static kernmantle rope with bag (length based on scenario needs)
5	8 mm prusik loop, short
5	8 mm prusik loop, long
10	1" webbing, 5' – green
10	1" webbing, 12' – yellow
10	1" webbing, 15' – blue
10	1" webbing, 20' – orange
30	Carabiners, NFPA 1983 "G" rated
2	Fire service ground ladder
4	Entrant light source
4	Personal alert device
1	Clipboard
1	Sample entry permit forms for each scenario
1	Lock-out/Tag-out kit
1	Manikin

Training Props

The following training props are required to deliver this course:

- Aboveground Tank
 - Minimum 8' high with a vertical (top) entry through a portal of 18" to 30" and a horizontal (side) entry through a portal of 18" to 30"
- Underground Vault
 - While belowground vaults are preferred, it will be acceptable to place vaults at ground level and provide platforms to simulate ground level for placing tripods or other equipment
 - Vertical drop from the entry point must be greater than 5'
 - Tapered cross section
 - An internal configuration of inwardly converging walls or a floor that slopes downward and tapers to a smaller cross section
 - Entry may be vertical or horizontal, but horizontal but must be above the section that tapers downward
 - Horizontal Pipe
 - Below grade or aboveground pipes between 18" and 36" in diameter

- A minimum of 25' of continuous pipe shall be provided with at least one 45-degree or 90-degree bend
- One or more of the above listed spaces shall include a lock-out/tag-out prop as part of the evolution
- Permit-required confined spaces
- Minimum training prop requirements can be fulfilled by using actual permit-required confined spaces or representative spaces
- Opening Size
 - One portal of entry on any of the above props shall be less than 24"
 - Opening size is determined by measuring the shorter side of the opening

The provider or agency assumes all responsibility, liability, and maintenance for the engineering design, strength, stability, and adequacy of all props, including anchor points and tie offs. The provider or agency further assumes all responsibility, liability, and maintenance for all tools, equipment, and supplies used at the site for the delivery of a CSRT class. This includes, but is not limited to, ladders, ropes, rescue hardware, and software.

Personnel

The following personnel are required to deliver this course:

- Any instructor counted toward student ratios must be an SFT Registered Confined Space Rescue Technician Instructor.

Time Table

Segment	Lecture	Application	Unit Total
Unit 1: Introduction			
Topic 1-1: Orientation and Administration	0.5	0.0	
Unit 1 Totals	0.5	0.0	0.5
Unit 2: Overview (Classroom)			
Topic 2-1: Identifying Regulations and Standards	0.5	0.0	
Topic 2-2: Describing Lessons Learned	0.25	0.0	
Topic 2-3: Defining a Confined Space	0.25	0.0	
Topic 2-4: Defining a Permit-Required Confined Space	0.25	0.0	
Topic 2-5: Describing the Required Positions and Elements of an Entry Permit	0.25	0.0	
Topic 2-6: Describing Required Personal Protective Equipment (PPE)	0.25	0.0	
Unit 2 Totals	1.75	0.0	1.75
Unit 3: Size Up and Safety (Classroom)			
Topic 3-1: Identifying Hazards	0.75	0.0	
Topic 3-2: Conducting Environmental Monitoring	0.50	0.0	
Topic 3-3: Controlling Hazards	0.5	0.0	
Topic 3-4: Mitigating Risks	0.5	0.0	
Topic 3-5: Recognizing Resource Needs	0.5	0.0	
Topic 3-6: Assessing an Incident	0.5	0.0	
Topic 3-7: Sizing Up an Incident	0.5	0.0	
Unit 3 Totals	3.75	0.0	3.75
Unit 4: Pre-Entry (Classroom)			
Topic 4-1: Applying and Using Supplied-Air Respirators (SARs)	0.25	0.0	
Topic 4-2: Preparing to Enter a Confined Space	0.25	0.0	
Unit 4 Totals	0.5	0.0	0.5
Unit 5: Entry (Classroom)			
Topic 5-1: Entering a Confined Space	0.25	0.0	
Unit 5 Totals	0.25	0.0	0.25
Unit 6: Termination (Classroom)			
Topic 6-1: Terminating a Technical Rescue Operation	0.25	0.0	
Unit 6 Totals	0.25	0.0	0.25
Unit 7: Preplanning (Classroom)			
Topic 7-1: Preplanning a Confined Space Incident	0.25	0.25	
Unit 7 Totals	0.25	0.25	0.50

Unit 8: Size Up and Safety (Drill Ground)			
Topic 8-1: Assessing an Incident	0.25	0.25	
Topic 8-2: Sizing Up an Incident	0.25	0.25	
Topic 8-3: Conducting Environmental Monitoring	0.25	0.5	
Topic 8-4: Controlling Hazards	0.25	0.5	
Unit 8 Totals	1.0	1.5	2.5
Unit 9: Pre-Entry (Drill Ground)			
Topic 9-1: Applying and Using SCBA as a Rescue Entrant	0.25	0.25	
Topic 9-2: Applying and Using Supplied-Air Respirators (SARs) as a Rescue Entrant	0.25	1.0	
Topic 9-3: Initiating a Search in Areas Immediately Visible from Entry Portal	0.25	0.5	
Topic 9-4: Preparing to Enter a Confined Space with a Hazardous Atmosphere	0.25	0.5	
Topic 9-5: Preparing to Enter a Horizontally Oriented Confined Space	0.25	1.25	
Topic 9-6: Preparing to Enter a Vertically Oriented Confined Space	0.25	1.25	
Topic 9-7: Assembling an Artificial High Directional (AHD) and Applicable Raising and Lowering Systems	0.25	1.5	
Unit 9 Totals	1.75	6.25	8.0
Unit 10: Entry (Drill Ground)			
Topic 10-1: Entering a Confined Space with Atmospheric Hazards	0.25	1.25	
Topic 10-2: Entering a Horizontally Oriented Confined Space for Rescue	0.25	1.25	
Topic 10-3: Entering a Vertically Oriented Confined Space for Rescue	0.25	1.25	
Topic 10-4: Initiating a Search in Areas Not Immediately Visible from Entry Portal	0.25	1.25	
Unit 10 Totals	1.0	5.0	6.0
Unit 11: Rescue (Drill Ground)			
Topic 11-1: Applying an Atmosphere-Supplying Respirator (ASR) to a Victim	0.25	0.25	
Topic 11-2: Performing Full Spinal Victim Immobilization	0.25	0.25	
Topic 11-3: Performing Short Spinal Victim Immobilization	0.25	0.25	
Topic 11-4: Packaging a Victim in a Litter for Removal from a Horizontally Oriented Confined Space	0.25	0.25	
Topic 11-5: Packaging a Victim in a Litter for Removal from a Vertically Oriented Confined Space	0.25	0.25	

Topic 11-6: Removing a Victim Requiring Immediate Extraction to Prevent Imminent Death	0.25	0.75	
Topic 11-7: Removing a Victim from a Horizontally Oriented Confined Space	0.25	1.0	
Topic 11-8: Removing a Victim from a Vertically Oriented Confined Space	0.25	1.5	
Unit 11 Totals	2.0	4.5	6.5
Unit 12: Termination (Drill Ground)			
Topic 12-1: Removing all Entrants from a Confined Space	0.25	0.25	
Topic 12-2: Terminating a Technical Rescue Operation	0.25	0.25	
Unit 12 Totals	0.5	0.5	1.0
Formative Assessments			
Determined by AHJ or educational institution	0.0	0.0	0.0
Summative Assessment			
Determined by AHJ or educational institution	0.0	8.0	0.0
Course Totals			
	13.5	26.5	40.0

Time Table Key

1. The Time Table documents the amount of time required to deliver the content included in the course plan.
2. Time is documented using the quarter system: 15 min. = .25 / 30 min. = .50 / 45 min. = .75 / 60 min. = 1.0.
3. The Course Totals do not reflect time for lunch (1 hour) or breaks (10 minutes per each 50 minutes of instruction or assessment). It is the instructor's responsibility to add this time based on the course delivery schedule.
4. Application (activities, skills exercises, and formative testing) time will vary depending on the number of students enrolled. The Application time documented is based on the maximum class size identified in the Course Details section.

The following is a breakdown of what a program might look like if there were fewer students. These estimates may need to be adjusted based on student abilities.

- 40 – 50 Students = 260 hours
- 30 – 40 Students = 180 hours
- 20 – 30 Students = 120 hours
- 1 – 20 Students = 60 hours

5. Summative Assessments are determined and scheduled by the authority having jurisdiction. These are not the written or psychomotor State Fire Training certification exams. These are in-class assessments to evaluate student progress and calculate course grades.

Unit 1: Introduction

Topic 1-1: Orientation and Administration

Terminal Learning Objective

At the end of this topic, a student will be able to identify facility and classroom requirements and identify course objectives, events, requirements, assignments, activities, skills exercises, resources, evaluation methods, and participation requirements in the course syllabus.

Enabling Learning Objectives

1. Identify facility requirements
 - Restroom locations
 - Food locations
 - Smoking locations
 - Emergency procedures
2. Identify classroom requirements
 - Start and end times
 - Breaks
 - Electronic device policies
 - Special needs and accommodations
 - Other requirements as applicable
3. Review course syllabus
 - Course objectives
 - Calendar of events
 - Course requirements
 - Student evaluation process
 - Assignments
 - Activities
 - Required student resources
 - Class participation requirements

Discussion Questions

1. Determined by instructor

Application

1. Have students complete all required registration forms.

Unit 2: Overview (Classroom)

Topic 2-1: Identifying Regulations and Standards

Terminal Learning Objective

At the end of this topic a student, given applicable regulations and standards, will be able to identify and apply confined space rescue regulations and standards during confined space rescue incidents and operations.

Enabling Learning Objectives

1. Describe the difference between a regulation or law and a standard
 - Regulation or law (requirement)
 - Titles
 - Codes
 - Regulations
 - Laws
 - Acts
 - Standards (guidance)
 - Guidelines
 - Standards
 - Policies
 - Procedures
 - Best practices
2. Identify applicable industry regulations
 - Federal
 - Code of Federal Regulations, Permit-Required Confined Spaces, 26 CFR 1901.146
 - State
 - California Code of Regulations, General Industry Safety Orders, Title 8, Article 108, Sections 5156, 5157, 5158
3. Identify the applicable industry standards
 - Professional organizations
 - NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (current edition)
 - NFPA 1670: Standard on Operations and Training for Technical Search and Rescue Incidents (current edition)
 - AHJ
 - Policies and procedures

Discussion Questions

1. Which are mandatory, laws or standards?
2. Which are recommended, laws or standards?

Application

1. Determined by instructor

Instructor Resources

1. None

CTS Guide Reference: None

Topic 2-2: Describing Lessons Learned

Terminal Learning Objective

At the end of this topic a student, given reports and industry standards, will be able to describe historical confined space rescue incidents and identify risks to rescuers, bystanders, and victims so that lessons learned can be applied to future rescue incidents.

Enabling Learning Objectives

1. Identify confined space rescue training levels
 - Awareness
 - Operations
 - Technicians
2. Identify historical incidents and dangers
 - Historical and current injury and death statistics
 - Most deaths are “would-be” rescuers

Discussion Questions

1. Who is most likely to be injured or killed in a rescue incident?
2. What is the difference between awareness and technician level training?

Application

1. Determined by instructor

Instructor Notes

1. ELO1: SFT teaches Operations and Technician together in Confined Space Rescue Technician (2021). All technicians have operations level training.
2. ELO2: Use the following resources to identify historical incidents
 - [Worker Deaths in Confined Spaces: A Summary of NIOSH Surveillance and Investigative Findings \(NIOSH\)](#)
 - [Fatality Assessment and Control Evaluation \(FACE\) Program Investigations \(NIOSH\)](#)
 - U.S. Department of Health and Human Services
 - U.S. Public Health Service
 - Centers for Disease Control and Prevention
 - [Confined Space Guide for General Industry, California Department of Industrial Relations \(2019\)](#)

CTS Guide Reference: None

Topic 2-3: Defining a Confined Space

Terminal Learning Objective

At the end of this topic a student, given Cal-OSHA CCR Title 8 Article 108 § 5157, will be able to define a confined space in accordance with state standards.

Enabling Learning Objectives

1. Define the three requirements of a confined space (all three must be present)
 - Is large enough and so configured that an employee can bodily enter and perform assigned work
 - Has limited or restricted means for entry or exit
 - Is not designed for continuous employee occupancy
2. Identify examples of confined spaces
 - Tanks
 - Vessels
 - Silos
 - Storage bins
 - Hoppers
 - Vaults
 - Pits

Discussion Questions

1. What is the definition of a confined space?
2. What confined spaces might you encounter in your AHJ?

Application

1. Determined by instructor

Instructor Notes

1. None

CTS Guide Reference: None

Topic 2-4: Defining a Permit-Required Confined Space

Terminal Learning Objective

At the end of this topic a student, given Cal-OSHA CCR Title 8 Article 108 § 5157, will be able to define a permit-required confined space in accordance with state standards.

Enabling Learning Objectives

1. Define the conditions that indicate a permit-required confined space (any one of the four must be present)
 - Contains or has a potential to contain a hazardous atmosphere
 - Contains a material that has the potential for engulfing an entrant
 - Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor which slopes downward and tapers to a smaller cross-section
 - Contains any other recognized serious safety or health hazard

Discussion Questions

1. What is the difference between a confined space and a permit-required confined space?
2. To be permit-required, does a space need to be confined?
3. What permit-required confined spaces might you encounter in your AHJ?

Application

1. Determined by instructor

Instructor Notes

1. None

CTS Guide Reference: None

Topic 2-5: Describing the Required Positions and Elements of an Entry Permit

Terminal Learning Objective

At the end of this topic a student, given Cal-OSHA CCR Title 8 Article 108 § 5157, will be able to describe the mandatory positions and components of a permit-required confined-space entry.

Enabling Learning Objectives

1. Describe the duties and responsibilities of:
 - Authorized entrant
 - Attendant
 - Entry supervisor
2. Identify the minimum requirements on a confined-space entry permit

Discussion Questions

1. What are the mandatory components of a confined space entry permit?
2. What is the minimum training required of an entry supervisor?

Application

1. Given a confined space incident and images, have students complete a sample confined space entry permit.

Instructor Notes

1. Permit requirements are documented in Cal-OSHA CCR Title 8 Article 108 § 5157 and any other applicable regulations.

CTS Guide Reference: None

Topic 2-6: Describing Required Personal Protective Equipment (PPE)

Terminal Learning Objective

At the end of this topic a student, given personal protective equipment and AHJ policies and procedures will be able to describe the PPE required to safely enter and work in confined spaces.

Enabling Learning Objectives

1. Describe the physical protection required to safely enter and rescue a victim from a confined space
2. Describe the four levels of chemical protective equipment
3. Describe Self-Contained Breathing Apparatus (SCBA) used in confined space rescue
 - Breathing air conservation
 - Communication methods appropriate to breathing apparatus use in confined spaces
4. Describe supplied air respirators and their advantages and disadvantages when used in confined space rescue
5. Describe air purifying respirators and their advantages and disadvantages when used in confined space rescue
6. Describe respiratory protection factors and how they are used to determine respiratory protection levels
7. Describe elements of a respiratory protection program as required by state and federal regulations

Discussion Questions

1. What types of breathing air systems are appropriate to use in a confined space?

Application

1. Determined by instructor

Instructor Notes

1. None

CTS Guide Reference: None

Unit 3: Size Up and Safety (Classroom)

Topic 3-1: Identifying Hazards

Terminal Learning Objective

At the end of this topic a student, given a confined space incident and technical resources, will be able to identify incident hazards so that hazards can be mitigated prior to entry.

Enabling Learning Objectives

1. Describe hazards commonly found at confined space incidents
 - Atmospheric hazards
 - Oxygen deficient
 - Oxygen enriched
 - Flammability
 - Airborne combustible dust
 - Toxicity
 - Engulfment hazards
 - Finely divided solids
 - Liquids
 - Physical/mechanical hazards
 - Environmental hazards
 - High temperatures
 - Cryogenics
 - Corrosive hazards
 - Radiological hazards
 - Biological hazards
 - Psychological hazards
2. Describe basic physical properties of contaminants
3. Describe signs, symptoms, and behavioral impacts of hazard exposure
4. Identify types and use of technical references
 - Department of Transportation Emergency Response Guidebook (DOT ERG)
 - Safety Data Sheets (SDS)
 - Other site work permits (including site-specific entry permits)

Discussion Questions

1. What hazards might you encounter in confined spaces affiliated with different industries?
2. What hazards might you find in confined spaces found in your AHJ?
3. How can a hazard inside a confined space become a hazard in the area adjacent to the confined space?
4. What are the signs, symptoms, and behavioral effects of exposure to atmospheric hazards?

Application

1. Determined by instructor

Instructor Notes

1. None

CTS Guide Reference: None

Topic 3-2: Conducting Environmental Monitoring

Terminal Learning Objective

At the end of this topic a student, given monitoring equipment, reference material, PPE, accurately calibrated detection and monitoring equipment, and size-up information, will be able to conduct monitoring of the environment so that representative sample of the space is obtained, accurate readings are made, readings are documented, and effects of ventilation in determining atmospheric conditions and the conditions of the space have been determined for exposures to existing or potential environmental hazards.

Enabling Learning Objectives

1. Identify types of detection and monitoring equipment
 - Colorimetric tubes
 - Oxygen concentration monitor (continuous reading, remote sampling)
 - Combustible gas monitor (continuous reading, remote sampling)
 - Specific toxicity monitor (continuous reading, remote sampling)
 - Multi-gas atmospheric monitors (continuous reading, remote sampling)
 - Passive dosimeter
 - pH papers, pH meters, and pH strips
 - Radiation detection instruments
2. Describe how to use detection and monitoring equipment
 - Calibration
 - Proper operation
 - Response time
 - Detection range
 - Relative response
 - Sensitivity
 - Selectivity
3. Describe capabilities and limitations of detection and monitoring equipment
 - Temperature extremes
 - Cross-sensitivity
 - Calibration
 - Power
 - Time of sampling period
 - Location of sample
 - Condition of instrument sensors
4. Describe ways to confirm calibration
5. Describe how to define confined space configuration as it applies to obtaining a representative sample of space
6. Describe how to determine contents of a confined space
7. Identify reference terms and resources including
 - Lethal concentration-50 (LC50)
 - Lethal dose-50 (LD50)
 - Permissible exposure limit (PEL)

- Threshold limit value (TLV)
- Threshold limit value — short-term exposure limit (TLVSTEL)
- Threshold limit value — time-weighted average (TLVTWA)
- IDLH
- Chemical information documents (e.g., SDS)
- Reference manuals
- Computerized reference databases
- Technical information centers
- Technical information specialists and monitoring equipment

Discussion Questions

1. What equipment does your AHJ use for environmental monitoring?
2. What factors can impact the equipment's functionality or effectiveness?

Application

1. Covered in corresponding drill ground Topic 8-3.

Instructor Notes

1. None

CTS Guide Reference: CTS 2-3

Topic 3-3: Controlling Hazards

Terminal Learning Objective

At the end of this topic a student, given PPE and a confined space tool cache, will be able to control hazards so that the rescue area is established; access to the incident scene is controlled; rescuers are protected from exposure to hazardous materials and atmospheres, all forms of harmful energy releases, and physical hazards; and victims are protected from further harm.

Enabling Learning Objectives

1. Describe safety protocols
2. Describe isolation terminology, methods, equipment, and implementation
 - Lockout/tagout
 - Shut down system
 - Isolation
 - Apply lockout/tagout device
 - Control stored energy
3. Describe how to establish control zones (barriers)
4. Describe ventilation equipment and procedures
 - Equipment used to ventilate confined spaces
 - Techniques used to for various confined space configurations
 - Common ventilation problems and way to avoid or overcome them

Discussion Questions

1. What are the various isolation procedures?
2. Why is atmospheric monitoring performed?
3. Why is there a need for ventilation?

Application

1. Covered in corresponding drill ground Topic 8-4.

Instructor Notes

1. None

CTS Guide Reference: CTS 2-5

Topic 3-4: Mitigating Risks

Terminal Learning Objective

At the end of this topic a student, given PPE and a confined space tool cache, will be able to identify and mitigate risk to rescuer and victims so that rescuers and victims are protected from further harm.

Enabling Learning Objectives

1. Identify common risks
 - To rescuer
 - To victim
2. Describe how to conduct a risk/benefit analysis
3. Assess victim survival profile (risk/benefit)
4. Identify risk management strategies

Discussion Questions

1. How can you increase the victim survivability profile?

Application

1. Determined by instructor

Instructor Notes

1. None

CTS Guide Reference: None

Topic 3-5: Recognizing Resource Needs

Terminal Learning Objective

At the end of this topic a student, given a confined space rescue incident, will be able to recognize resource needs so that the incident is supported in accordance with AHJ policies and procedures.

Enabling Learning Objectives

1. Identify availability, capabilities, and limitations of rescuers and other resources
2. Identify types of resources
 - Hazmat
 - Rescue
 - Medical
 - Decontamination
 - Rehabilitation
 - Law enforcement
 - Site representatives
 - Public information officer
 - Logistics
 - Utilities/public works
3. Identify needed resources
 - Personnel
 - Roles
 - Quantity
 - Rotations
 - Equipment
 - PPE, including chemical protective clothing
 - Respiratory protection
 - Harnesses
 - Communications equipment
 - High-point anchor
 - Retrieval systems
 - Monitoring devices
 - Ventilation
 - Lighting
 - Rescue tools
4. Describe how to request resources
 - AHJ policies and procedures

Discussion Questions

1. What types of resources might be required to support a confined space incident?

Application

1. Determined by instructor

Instructor Notes

1. None

CTS Guide Reference: None

Topic 3-6: Assessing an Incident

Terminal Learning Objective

At the end of this topic a student, given size up information, information from technical resources, monitoring equipment, and PPE required to perform the assessment, will be able to assess an incident so that general area and space-specific hazards are identified, bystanders and victims are interviewed, immediate and ongoing monitoring of the space is performed, the victims' conditions and location are determined, a risk/benefit analysis is performed, methods of ingress and egress for rescuer and victims are identified, rescue systems for victim removal are determined, and an emergency means of retrieval for rescue entrants is established.

Enabling Learning Objectives

1. Describe how to use size-up information and interview techniques
 - Scope, magnitude, and nature of the incident
 - Location, number, and condition of victims
 - Risk/benefit analysis (body recovery versus rescue)
 - Access to the scene
 - Environmental factors
 - Hazards
 - Available and necessary resources
 - Establishment of a control perimeter
2. Describe permit process
3. Describe monitoring equipment protocols
4. Describe methods to identify egress from and ingress into the space
5. Describe processes to identify opening(s) and internal configuration of the space
 - Size
 - Type
 - Configuration
6. Describe rescue and retrieval systems

Discussion Questions

1. What is your AHJ's permitting process?
2. Who is a good onsite resource for identifying the interior configuration of a confined space?

Application

1. Covered in corresponding drill ground Topic 8-1

Instructor Notes

1. None

CTS Guide Reference: CTS 2-4

Topic 3-7: Sizing Up an Incident

Terminal Learning Objective

At the end of this topic a student, given background information and applicable reference materials, will be able to perform size-up of a confined space rescue incident so that the type of rescue is determined, the number of victims is identified, the last reported location of all victims is established, witnesses and reporting parties are identified and interviewed, resource needs are assessed, search parameters are identified, and information required to develop an incident action plan is obtained.

Enabling Learning Objectives

1. Describe types of reference materials and their uses including but not limited to:
 - Entry permits
 - Chemical information documents (e.g., SDS)
 - Site plans or drawings
2. Describe elements of an action plan and related information
3. Describe relationship of size-up to the incident management system
4. Describe information gathering techniques and how that information is used in the size-up process

Discussion Questions

1. What are your agency's size-up considerations?
2. What trigger points should cause you to reassess an incident?

Application

1. Covered in corresponding drill ground Topic 8-2.

Instructor Notes

1. None

CTS Guide Reference: CTS 2-2

Unit 4: Pre-Entry (Classroom)

Topic 4-1: Applying and Using Supplied-Air Respirators (SARs)

Terminal Learning Objective

At the end of this topic a student, given a confined space incident requiring respiratory protection, a rescue assignment, a means of entry into and exit from the space, a rescue attendant outside the space, personnel to manage air lines outside of the space, a SAR, a breathing air supply system with air lines to supply the SAR, breathing apparatus cylinders, personnel to monitor and maintain the air supply system, and a confined space, will be able to apply and use supplied-air respirators (SARs) as a rescue entrant so that the internal configuration of the space will not create entanglement hazards when using air lines, the victim cannot be seen from the outside of the space's primary access opening, the portal size and configuration will not allow a rescuer to pass through the access/egress opening(s) using SCBA when worn in the manner recommended by the manufacturer, all hazards in and around the confined space have been identified and might be mitigated by using respiratory protection so that the rescue entrant passes through the portal without removal of the SAR and the assigned rescue duty is performed.

Enabling Learning Objectives

1. Identify components of a SAR
2. Describe capabilities and limitations of SAR in confined space rescue
3. Describe breathing air conservation
4. Describe air-line management and communication methods appropriate to breathing apparatus use in confined spaces

Discussion Questions

1. What are the advantages of using a SAR rather than an SCBA in a confined space?
2. What are the disadvantages of using a SAR in a confined space?

Application

1. Covered in corresponding drill ground Topic 9-1

Instructor Notes

1. None

CTS Guide Reference: CTS 3-3

Topic 4-2: Preparing to Enter a Confined Space

Terminal Learning Objective

At the end of this topic a student, given a confined space with a hazardous atmosphere, atmosphere-supplied respirators, and a confined space tool cache, will be able to prepare for entry into a horizontally or vertically oriented confined space with a hazardous atmosphere so that the internal configuration of the space is clear and unobstructed so retrieval systems can be utilized for rescuers without possibility of entanglement, the victim can be easily seen from the outside of the space's primary access opening, rescuers can pass easily through the access/egress opening(s) with room to spare when PPE is worn in the manner recommended by the manufacturer, the space can accommodate two or more rescuers in addition to the victim, all hazards in and around the confined space have been identified and can be mitigated by using respiratory protection so that victim communication is established when possible, continuous atmospheric monitoring is initiated, the atmosphere is assessed to be manageable with atmosphere-supplying respirators, victim communication is established when possible, atmosphere-supplying respirators are used by rescue entrants while within the space, atmosphere-supplying respirators are rapidly applied to the victim, rescuer readiness is verified, rescuers' limitations are identified and evaluated, rescuers unsuitable to confined space entry operations are reassigned and replaced, route and methods of confined space entry are determined, and rescuer evacuation is planned.

Enabling Learning Objectives

1. Identify characteristics of a hazardous atmosphere
 - Internal configuration of the space could create entanglement hazards and retrieval might not be effective
 - Victim cannot be seen from the outside of the space's primary access opening
 - Portal size and configuration will not allow a rescuer to pass through the access/egress opening(s) using SCBA when worn in the manner recommended by the manufacturer
 - All hazards in and around the confined space have been identified and can be mitigated by using respiratory protection
2. Describe methods of entry into confined spaces with hazardous atmospheres in accordance with operational protocols
3. Identify characteristics of a horizontally oriented confined space
4. Describe methods of entry into horizontally oriented confined spaces in accordance with operational protocols
5. Identify characteristics of a vertically oriented confined space
6. Describe methods of entry into vertically oriented confined spaces in accordance with operational protocols
7. Describe organization protocol for medical and psychological evaluation related to confined space entry
8. Describe rescuer evaluation methods

Discussion Questions

1. What characteristics make a confined space a potentially hazardous area?

2. What characteristics differentiate a vertical confined space from or horizontal confined space?

Application

1. Covered in corresponding drill ground Topic 9-3, 9-4, and 9-5.

Instructor Notes

1. None

CTS Guide Reference: CTS 2-9, CTS 2-13, CTS 3-5

Unit 5: Entry (Classroom)

Topic 5-1: Entering a Confined Space

Terminal Learning Objective

At the end of this topic a student, given hazard-specific PPE; safety, communication, and operational protocols; a confined space rescue tool cache; and a confined space with a hazardous atmosphere, will be able to enter a horizontally or vertically oriented confined space with atmospheric hazards so that the internal configuration of the space is clear and unobstructed so retrieval systems can be utilized for rescuers without possibility of entanglement, the victim can be easily seen from the outside of the space's primary access opening, rescuers can pass easily through the access/egress opening(s) with room to spare when PPE is worn in the manner recommended by the manufacturer, the space can accommodate two or more rescuers in addition to the victim, all hazards in and around the confined space have been identified and can be mitigated by using respiratory protection so that the victim is contacted, controlled confined space entry is established and maintained, atmosphere is continuously monitored, the victim's mental and physical conditions are further assessed, patient care is initiated, the patient is packaged to restrictions of the space, and patient removal can be initiated.

Enabling Learning Objectives

1. Describe principles of operation for atmospheric monitoring equipment
2. Describe methods for patient care in confined spaces
3. Describe safety protocols
4. Describe communication protocols
5. Describe medical protocols
6. Describe operational protocols
7. Describe controlled confined space entry and egress procedures for confined spaces

Discussion Questions

1. What type of victim injuries might you encounter?
2. What safety considerations apply to the rescuer?
3. What safety considerations apply to the victim?

Application

1. Covered in corresponding drill ground Topic 10-1, 10-2, and 10-3.

Instructor Notes

1. None

CTS Guide Reference: CTS 2-10, CTS 2-14, CTS 3-6

Unit 6: Termination (Classroom)

Topic 6-1: Terminating a Technical Rescue Operation

Terminal Learning Objective

At the end of this topic a student, given an incident scenario, assigned resources, and site safety data, will be able to terminate a technical rescue operation so that rescuer risk and site safety are managed, scene security is maintained and custody transferred to a responsible party, personnel and resources are returned to a state of readiness, record-keeping and documentation occur, and post-event analysis is conducted.

Enabling Learning Objectives

1. Describe Incident Command functions and resources
2. Describe hazard identification and risk management strategies
3. Describe logistics and resource management
4. Describe personnel accountability systems
5. Describe AHJ-specific procedures or protocols related to personnel rehab
6. Describe record-keeping and documentation requirements (federal, state, AHJ)

Discussion Questions

1. At what point is a confined space incident “terminated”?
2. How long are you required to maintain your confined space permit after termination?

Application

1. Covered in corresponding drill ground Topic 12-2

Instructor Notes

1. None

CTS Guide Reference: CTS 2-18

Unit 7: Preplanning (Classroom)

Topic 7-1: Preplanning a Confined Space Incident

Terminal Learning Objective

At the end of this topic a student, given applicable guidelines and regulations and a preplan form, will be able to preplan a confined space incident so that a standard approach is used during a confined space rescue emergency, hazards are recognized and documented, isolation methods are identified and documented, all accesses to the location of the confined space entry opening are identified and documented, all types of confined space entry openings are identified and documented, and internal configurations and special resource needs are documented for future rescuer use.

Enabling Learning Objectives

1. Identify operational protocols
2. Identify preplan forms
3. Identify hazards common to jurisdictional boundaries
4. Identify hazards that should and must be identified on preplans
5. Identify isolation methods and issues related to preplanning
6. Identify issues and constraints related to type of confined space opening
7. Identify internal configuration special resource needs
8. Identify applicable legal issues
9. Select a preplan form
10. Draft or draw a sketch of confined spaces
11. Complete supplied forms
12. Identify and evaluate:
 - Various configurations of confined spaces
 - Access points
 - Confined space entry openings
 - Isolation procedures
 - Energy control locations
13. Recognize general and site-specific hazards
14. Document all data
15. Apply all regulatory compliance references

Discussion Questions

1. What type of information should you include in a confined space preplan?
2. How often must a facility with permit-required confined spaces allow rescue services to access their site?
3. Where does your agency keep its completed preplans?

Application

1. Given applicable guidelines and regulations, a preplan form, and a sample confined space rescue scenario, have students preplan a confined space incident.

Instructor Notes

1. None

CTS Guide Reference: CTS 3-2

Unit 8: Size Up and Safety (Drill Ground)

Topic 8-1: Assessing an Incident

Terminal Learning Objective

At the end of this topic a student, given size-up information, information from technical resources, monitoring equipment, and PPE required to perform the assessment, will be able to assess the incident so that general area and space-specific hazards are identified, bystanders and victims are interviewed, immediate and ongoing monitoring of the space is performed, the victims' conditions and location are determined, a risk/benefit analysis is performed, methods of ingress and egress for rescuer and victims are identified, rescue systems for victim removal are determined, and an emergency means of retrieval for rescue entrants is established.

Enabling Learning Objectives

1. Select and interpret size-up information
2. Operate monitoring equipment
3. Conduct interviews
4. Choose and utilize PPE
5. Identify hazard mitigation options
6. Recognize characteristics and hazards of confined spaces
7. Identify probable victim location
8. Perform risk/benefit analysis
9. Describe rescue and retrieval systems
10. Evaluate specific rescue systems for confined space entry and retrieval of rescuers and victims during confined space incidents

Discussion Questions

1. Determined by instructor

Application

1. Given size-up information, information from technical resources, monitoring equipment, and PPE required to perform the assessment, have students assess a confined space rescue evolution.

Instructor Notes

1. See corresponding classroom content in Topic 3-6.

CTS Guide Reference: CTS 2-4

Topic 8-2: Sizing Up an Incident

Terminal Learning Objective

At the end of this topic a student, given background information and applicable reference materials, will be able to perform size-up of a confined space rescue incident so that the type of rescue is determined, the number of victims is identified, the last reported location of all victims is established, witnesses and reporting parties are identified and interviewed, resource needs are assessed, search parameters are identified, and information required to develop an incident action plan is obtained.

Enabling Learning Objectives

1. Read technical rescue reference materials
2. Gather information
3. Relay information
4. Use information gathering sources

Discussion Questions

1. Determined by instructor

Application

1. Given background information and applicable reference materials, have students perform size-up of a confined space rescue evolution.

Instructor Notes

1. See corresponding classroom content in Topic 3-7.

CTS Guide Reference: CTS 2-2

Topic 8-3: Conduct Environmental Monitoring

Terminal Learning Objective

At the end of this topic a student, given monitoring equipment reference material, PPE, accurately calibrated detection and monitoring equipment, and size-up information, will be able to conduct monitoring of the environment so that representative sample of the space is obtained, accurate readings are made, readings are documented, and effects of ventilation in determining atmospheric conditions and the conditions of the space have been determined for exposures to existing or potential environmental hazards.

Enabling Learning Objectives

1. Use and confirm calibration of detection and monitoring equipment
2. Acquire representative samples of space

Discussion Questions

1. Determined by instructor

Application

1. Given monitoring equipment reference material, PPE, accurately calibrated detection and monitoring equipment, and size-up information, have students conduct monitoring of the environment in a confined space evolution.

Instructor Notes

1. See corresponding classroom content in Topic 3-2.

CTS Guide Reference: CTS 2-3

Topic 8-4: Controlling Hazards

Terminal Learning Objective

At the end of this topic a student, given PPE and a confined space tool cache, will be able to control hazards so that the rescue area is established; access to the incident scene is controlled; rescuers are protected from exposure to hazardous materials and atmospheres, all forms of harmful energy releases, and physical hazards; and victims are protected from further harm.

Enabling Learning Objectives

1. Describe monitoring equipment and procedures
2. Describe ventilation equipment and procedures
3. Describe forms, sources, and control of harmful energy and physical hazards in the confined space
4. Utilize PPE
5. Place scene control barriers
6. Operate atmospheric monitoring equipment
7. Ventilate a confined space
8. Identify dangerous forms of energy
9. Mitigate physical and atmospheric hazards

Discussion Questions

1. Determined by instructor

Application

1. Given PPE and a confined space tool cache, have students control hazards in a confined space evolution.

Instructor Notes

1. See corresponding classroom content in Topic 3-3.

CTS Guide Reference: CTS 2-5

Unit 9: Pre-Entry (Drill Ground)

Topic 9-1: Applying and Using SCBA as a Rescue Entrant

Terminal Learning Objective

At the end of this topic a student, given a confined space incident requiring respiratory protection, a rescue assignment, a means of entry into and exit from the space, a rescue attendant outside the space, SCBA, breathing apparatus cylinders, and a confined space, will be able to apply and use self-contained breathing apparatus (SCBA) as a rescue entrant so that the internal configuration of the space is clear and unobstructed so retrieval systems can be utilized for rescuers without possibility of entanglement, the victim can be seen easily from the outside of the space's primary access opening, rescuers can pass easily through the access/egress opening(s) with room to spare when PPE is worn in the manner recommended by the manufacturer, the space can accommodate two or more rescuers in addition to the victim, all hazards in and around the confined space have been identified and can be mitigated by using respiratory protection, the rescue entrant passes through the portal without removal of the SCBA, the assigned rescue duty is performed, the rescue entrant frequently assesses the level of air remaining in the cylinder and communicates this level to rescuers outside of the space, and the rescue entrant exits the space prior to activation of the low-pressure alarm on the SCBA.

Enabling Learning Objectives

1. Describe capabilities and limitations of SCBA in confined space rescue
2. Describe breathing air conservation
3. Describe communication methods appropriate to breathing apparatus use in confined spaces
4. Use SCBA in a confined space entry for rescue
5. Use breathing techniques that will conserve the air supply
6. Use communication methods that effectively convey information between rescuers inside and outside of the space

Discussion Questions

1. Determined by instructor

Application

1. Given a confined space evolution requiring respiratory protection, a rescue assignment, a means of entry into and exit from the space, a rescue attendant outside the space, SCBA, breathing apparatus cylinders, and a confined space, have students apply and use self-contained breathing apparatus (SCBA) as a rescue entrant.

Instructor Notes

1. Teach both the cognitive and psychomotor portions of this lesson on the drill ground.

CTS Guide Reference: CTS 2-6

Topic 9-2: Applying and Using Supplied-Air Respirators (SARs) as a Rescue Entrant

Terminal Learning Objective

At the end of this topic a student, given a confined space incident requiring respiratory protection, a rescue assignment, a means of entry into and exit from the space, a rescue attendant outside the space, personnel to manage air lines outside of the space, a SAR, a breathing air supply system with air lines to supply the SAR, breathing apparatus cylinders, personnel to monitor and maintain the air supply system, and a confined space, will be able to apply and use supplied-air respirators (SARs) as a rescue entrant so that the internal configuration of the space will not create entanglement hazards when using air lines, the victim cannot be seen from the outside of the space's primary access opening, the portal size and configuration will not allow a rescuer to pass through the access/egress opening(s) using SCBA when worn in the manner recommended by the manufacturer, all hazards in and around the confined space have been identified and might be mitigated by using respiratory protection so that the rescue entrant passes through the portal without removal of the SAR and the assigned rescue duty is performed.

Enabling Learning Objectives

1. Describe capabilities and limitations of SAR in confined space rescue
2. Describe breathing air conservation
3. Describe air-line management
4. Describe communication methods appropriate to breathing apparatus use in confined spaces
5. Use SARs in a confined space entry for rescue
6. Use breathing techniques that will conserve the air supply
7. Manage airlines while working within the space
8. Use communication methods that effectively convey information between rescuers inside and outside of the space

Discussion Questions

1. Determined by instructor

Application

1. Given a confined space evolutions requiring respiratory protection, a rescue assignment, a means of entry into and exit from the space, a rescue attendant outside the space, personnel to manage air lines outside of the space, a SAR, a breathing air supply system with air lines to supply the SAR, breathing apparatus cylinders, personnel to monitor and maintain the air supply system, and a confined space, have students apply and use supplied-air respirators (SARs) as a rescue entrant.

Instructor Notes

1. See corresponding classroom content in Topic 4-1.

CTS Guide Reference: CTS 3-3

Topic 9-3: Initiating a Search in Areas Immediately Visible from Entry Portal

Terminal Learning Objective

At the end of this topic a student, given hazard-specific PPE, equipment pertinent to search mission, a confined space, and victim investigative information, will be able to initiate a search inside a confined space in those areas immediately visible from the confined space entry portal so that search parameters are established; the victim profile is established; the people in or around the search area are questioned and the information is updated and relayed to command; the personnel assignments match their expertise; all victims inside the space that are immediately visible from outside the portal are located and identified quickly; applicable technical rescue concerns are managed; risks to searchers are minimized; and all searchers are accounted for.

Enabling Learning Objectives

1. Identify local policies and procedures
2. Describe how to operate in the environment surrounding the area of the confined space access area
3. Work in the immediate area of the confined space entry portal
4. Perform immediate escape from the area if conditions become untenable

Discussion Questions

1. Determined by instructor

Application

1. Given hazard-specific PPE, equipment pertinent to search mission, a confined space evolution, and victim investigative information, have students initiate a search inside a confined space in those areas immediately visible from the confined space entry portal.

Instructor Notes

1. Teach both the cognitive and psychomotor portions of this lesson on the drill ground.

CTS Guide Reference: CTS 2-1

Topic 9-4: Preparing to Enter a Confined Space with a Hazardous Atmosphere

Terminal Learning Objective

At the end of this topic a student, given a confined space with a hazardous atmosphere, atmosphere-supplied respirators, and a confined space tool cache, will be able to prepare for entry into the confined space with a hazardous atmosphere so that entry can be made into a confined space that contains one or more of the following characteristics: the internal configuration of the space could create entanglement hazards and retrieval might not be effective, the victim cannot be seen from the outside of the space's primary access opening, the portal size and configuration will not allow a rescuer to pass through the access/egress opening(s) using SCBA when worn in the manner recommended by the manufacturer, all hazards in and around the confined space have been identified and can be mitigated by using respiratory protection so that continuous atmospheric monitoring is initiated, the atmosphere is assessed to be manageable with atmosphere-supplying respirators, victim communication is established when possible, atmosphere-supplying respirators are used by rescue entrants while within the space, atmosphere-supplying respirators are rapidly applied to the victim, rescuer readiness is verified, rescuers' limitations are identified and evaluated, rescuers unsuitable to entry operations are reassigned and replaced, route and methods of confined space entry are determined, and rescuer evacuation is planned.

Enabling Learning Objectives

1. Describe how to operate required hazard-specific monitoring equipment
2. Describe how to operate required atmosphere supplying respirators
3. Describe methods of entry into confined spaces with hazardous atmospheres in accordance with operational protocols
4. Operate monitoring equipment
5. Perform rescuer pre-entry medical exam
6. Evaluate rescuer capabilities and limitations
7. Identify victim communication needs
8. Evaluate for point and route of confined space entry
9. Select evacuation methods

Discussion Questions

1. Determined by instructor

Application

1. Given a confined space evolution with a hazardous atmosphere, atmosphere-supplied respirators, and a confined space tool cache, have students prepare for entry into the confined space.

Instructor Notes

1. See corresponding classroom content in Topic 4-2.

CTS Guide Reference: CTS 3-5

Topic 9-5: Preparing to Enter a Horizontally Oriented Confined Space

Terminal Learning Objective

At the end of this topic a student, given a confined space rescue tool cache and a confined space, will be able to prepare for entry into horizontally oriented confined space so that the internal configuration of the space is clear and unobstructed so retrieval systems can be utilized for rescuers without possibility of entanglement, the victim can be easily seen from the outside of the space's primary access opening, rescuers can pass easily through the access/egress opening(s) with room to spare when PPE is worn in the manner recommended by the manufacturer, the space can accommodate two or more rescuers in addition to the victim, all hazards in and around the confined space have been identified and can be mitigated by using respiratory protection so that victim communication is established when possible, continuous atmospheric monitoring is initiated, rescuer readiness is verified, rescuers' limitations are identified and evaluated, rescuers unsuitable to confined space entry operations are reassigned and replaced, route and methods of entry are determined, and rescuer evacuation is planned.

Enabling Learning Objectives

1. Describe how to operate required hazard-specific monitoring equipment
2. Describe methods of entry into confined spaces in accordance with operational protocols
3. Operate monitoring equipment
4. Perform rescuer pre-entry medical exam
5. Evaluate rescuer capabilities and limitations
6. Identify victim communication needs
7. Evaluate for point and route of confined space entry
8. Select evacuation methods

Discussion Questions

1. Determined by instructor

Application

1. Given a confined space rescue tool cache and a horizontally oriented confined space evolution, have students prepare for entry.

Instructor Notes

1. See corresponding classroom content in Topic 4-2.

CTS Guide Reference: CTS 2-9

Topic 9-6: Preparing to Enter a Vertically Oriented Confined Space

Terminal Learning Objective

At the end of this topic a student, given a confined space rescue tool cache and a confined space, will be able to prepare for entry into vertically oriented confined space so that the internal configuration of the space is clear and unobstructed so retrieval systems can be utilized for rescuers without possibility of entanglement, the victim can be easily seen from the outside of the space's primary access opening rescuers can pass easily through the access/egress opening(s) with room to spare when PPE is worn in the manner recommended by the manufacturer, the space can accommodate two or more rescuers in addition to the victim, all hazards in and around the confined space have been identified and can be mitigated by using respiratory protection so that victim communication is established when possible, continuous atmospheric monitoring is initiated, rescuer readiness is verified, rescuers' limitations are identified and evaluated, rescuers unsuitable to entry operations are reassigned and replaced, route and methods of confined space entry are determined, and rescuer evacuation is planned.

Enabling Learning Objectives

1. Describe how to operate required hazard-specific monitoring equipment
2. Describe methods of entry into confined spaces in accordance with operational protocols
3. Operate monitoring equipment
4. Perform rescuer pre-entry medical exam
5. Evaluate rescuer capabilities and limitations
6. Identify victim communication needs
7. Evaluate for point and route of confined space entry
8. Select evacuation methods

Discussion Questions

1. Determined by instruction

Application

1. Given a confined space rescue tool cache and a vertically oriented confined space evolution, have students prepare for entry.

Instructor Notes

1. See corresponding classroom content in Topic 4-2.

CTS Guide Reference: CTS 2-13

Topic 9-7: Assembling an Artificial High Directional (AHD) and Applicable Raising and Lowering Systems

Terminal Learning Objective

At the end of this topic a student, given an AHD, additional rescuers to assist in the assembly, and a vertically oriented space with a portal above which to set the AHD, will be able to assemble an AHD for application of a high point of attachment to a confined space rescue system so that the AHD is assembled in accordance with the manufacturer's recommendations, rescue systems are attached and secured to the AHD and the AHD provides enough clearance above the portal to fully extract a victim packaged in a vertically oriented litter.

Enabling Learning Objectives

1. Describe capabilities and limitations of AHDs in confined space rescue
2. Describe assembly procedures for the AHD utilized
3. Describe methods for stabilization of AHDs to prevent unnecessary movement
4. Describe force application to AHDs
5. Describe proper direction of that force to prevent movement or collapse
6. Assemble the AHD with assistance of other rescuers
7. Attach the rescue system to the AHD
8. Position the device high enough to provide adequate clearance area above the portal to allow removal of a vertically oriented litter
9. Operate the system in a way that will keep the AHD stable while lifting a load

Discussion Questions

1. What are some alternate vertical entry approaches other than an AHD?
2. What are the limitations of an improvised vs. a manufactured AHD?

Application

1. Given an AHD, additional rescuers to assist in the assembly, and a vertically oriented space with a portal above which to set the AHD, have students assemble an AHD for application of a high point of attachment to a confined space rescue system.

Instructor Notes

1. Teach both the cognitive and psychomotor portions of this lesson on the drill ground.

CTS Guide Reference: CTS 2-12

Unit 10: Entry (Drill Ground)

Topic 10-1: Entering a Confined Space with Atmospheric Hazards

Terminal Learning Objective

At the end of this topic a student, given hazard-specific PPE; safety, communication, and operational protocols; a confined space with a hazardous atmosphere; a confined space rescue tool cache, will be able to enter a confined space with atmospheric hazards so that the victim is contacted; and a confined space, so that the internal configuration of the space could create entanglement hazards and retrieval might not be effective, the victim cannot be seen from the outside of the space's primary access opening, the portal size and configuration will not allow a rescuer to pass through the access/egress opening(s) using SCBA when worn in the manner recommended by the manufacturer, all hazards in and around the confined space have been identified and can be mitigated by using respiratory protection so that a controlled confined space entry is established and maintained, the atmosphere is continuously monitored, the rescuers and patient(s) are protected from the hazards, the victim's mental and physical conditions are further assessed, patient care is initiated, the patient is packaged to restrictions of the space, and patient removal can be initiated.

Enabling Learning Objectives

1. Describe principles of operation for atmospheric monitoring equipment
2. Describe methods for patient care in confined spaces
3. Describe safety protocols
4. Describe communication protocols
 - Hand signals
 - Rope
 - Portable radio
 - Hardwire
5. Describe medical protocols
6. Describe operational protocols
7. Use and apply hazard-specific PPE and rescue-related systems and equipment
8. Implement safety, communication, and operational protocols
9. Use medical protocols to determine treatment priorities
10. Use medical equipment specific to confined space victim needs
11. Reassess and confirm mode of operation

Discussion Questions

1. What does "intrinsically safe" mean?
2. What are some communication challenges when operating in a confined space?

Application

1. Given hazard-specific PPE; safety, communication, and operational protocols; a confined space evolution with a hazardous atmosphere; and a confined space rescue tool cache, have students enter a confined space evolution with atmospheric hazards.

Instructor Notes

1. See corresponding classroom content in Topic 5-1.

CTS Guide Reference: CTS 3-6

Topic 10-2: Entering a Horizontally Oriented Confined Space for Rescue

Terminal Learning Objective

At the end of this topic a student, given PPE; safety, communication, and operational protocols; portable lighting; and a confined space rescue tool cache; a retrieval system; and a confined space, will be able to enter a horizontally oriented confined space for rescue so that the internal configuration of the space is clear and unobstructed so retrieval systems can be utilized for rescuers without possibility of entanglement, the victim can be easily seen from the outside of the space's primary access opening, rescuers can pass easily through the access/egress opening(s) with room to spare when PPE is worn in the manner recommended by the manufacturer, the space can accommodate two or more rescuers in addition to the victim, all hazards in and around the confined space have been identified and can be mitigated by using respiratory protection so that the victim is contacted, controlled confined space entry is established and maintained, atmosphere is monitored continuously, the victim's mental and physical conditions are assessed further, the rescue entrant is aided by portable lighting, rescue entrants are attached to retrieval lines at all times, patient care is initiated, the patient is packaged to restrictions of the space, and patient removal can be initiated.

Enabling Learning Objectives

1. Describe principles of operation for atmospheric monitoring equipment
2. Describe methods for patient care in confined spaces
3. Describe portable lighting methods
4. Describe safety protocols
5. Describe communication protocols
6. Describe medical protocols
7. Describe operational protocols
8. Describe controlled confined space entry and egress procedures
9. Use non-entry retrieval lines
10. Use and apply PPE and rescue-related systems and equipment
11. Use portable lighting in a darkened environment
12. Implement safety, communication, and operational protocols
13. Use medical protocols to determine treatment priorities
14. Use medical equipment specific to confined space victim needs
15. Reassess and confirm mode of operation

Discussion Questions

1. Determined by instructor

Application

1. Given PPE; safety, communication, and operational protocols; portable lighting; a confined space rescue tool cache; a retrieval system; and a confined space evolution, have students enter a horizontally oriented confined space for rescue.

Instructor Notes

1. See corresponding classroom content in Topic 5-1.

CTS Guide Reference: CTS 2-10

Topic 10-3: Enter a Vertically Oriented Confined Space for Rescue

Terminal Learning Objective

At the end of this topic a student, given PPE; safety, communication, operational protocols; a confined space rescue tool cache; and a confined space, will be able to enter a vertically oriented confined space for rescue, so that the internal configuration of the space is clear and unobstructed so retrieval systems can be utilized for rescuers without possibility of entanglement, the victim can be easily seen from the outside of the space's primary access opening, rescuers can pass easily through the access/egress opening(s) with room to spare when PPE is worn in the manner recommended by the manufacturer, the space can accommodate two or more rescuers in addition to the victim, all hazards in and around the confined space have been identified and can be mitigated by using respiratory protection so that the victim is contacted, controlled confined space entry is established and maintained, atmosphere is continuously monitored, the victim's mental and physical conditions are further assessed, patient care is initiated, the patient is packaged to restrictions of the space, and patient removal can be initiated.

Enabling Learning Objectives

1. Describe principles of operation for atmospheric monitoring equipment
2. Describe methods for patient care in confined spaces
3. Describe safety protocols
4. Describe communication protocols
5. Describe medical protocols
6. Describe operational protocols
7. Use non-entry retrieval lines
8. Use and apply PPE and rescue-related systems and equipment
9. Implement safety, communication, and operational protocols
10. Use medical protocols to determine treatment priorities
11. Use medical equipment specific to confined space victim needs
12. Reassess and confirm mode of operation

Discussion Questions

1. Determined by instructor

Application

1. Given PPE; safety, communication, operational protocols; a confined space rescue tool cache; and a confined space evolution, have students enter a vertically oriented confined space for rescue.

Instructor Notes

1. See corresponding classroom content in Topic 5-1.

CTS Guide Reference: CTS 2-14

Topic 10-4: Initiating a Search in Areas Not Immediately Visible from Entry Portal

Terminal Learning Objective

At the end of this topic a student, given hazard-specific PPE, confined space rescue entrant(s) to perform the search, equipment pertinent to search mission, a confined space, and victim investigative information, will be able to initiate a search inside a confined space in those areas not immediately visible from the confined space entry portal so that search parameters are established; the victim profile is established; search result information is acquired and relayed to command; the personnel assignments match their expertise; all victims inside the space are located and identified quickly; applicable technical rescue concerns are managed; risks to searchers are minimized; and all searchers are accounted for.

Enabling Learning Objectives

1. Identify local policies and procedures
2. Describe how to operate inside the confined space
3. Work inside the confined space
4. Communicate with rescuers outside the confined space portal
5. Perform self-rescue if conditions become untenable (when possible)

Discussion Questions

1. Will non-entry rescue be affected in this circumstance?

Application

1. Given hazard-specific PPE, confined space rescue entrant(s) to perform the search, equipment pertinent to search mission, a confined space evolution, and victim investigative information, have students initiate a search inside a confined space in those areas not immediately visible from the entry portal.

Instructor Notes

1. Teach both the cognitive and psychomotor portions of this lesson on the drill ground.

CTS Guide Reference: CTS 3-1

Unit 11: Rescue (Drill Ground)

Topic 11-1: Applying an Atmosphere-Supplying Respirator (ASR) to a Victim

Terminal Learning Objective

At the end of this topic a student, given a confined space incident requiring respiratory protection, a live victim, an atmosphere-supplying respirator and associated equipment, and a confined space, will be able to apply an atmosphere-supplying respirator to a victim so that the internal configuration of the space is clear and unobstructed so retrieval systems can be utilized for rescuers without possibility of entanglement; the victim can be easily seen from the outside of the space's primary access opening; rescuers can pass easily through the access/egress opening(s) with room to spare when PPE is worn in the manner recommended by the manufacturer; the space can accommodate two or more rescuers in addition to the victim; all hazards in and around the confined space have been identified and can be mitigated by using respiratory protection; the apparatus face piece is applied rapidly, positioned properly on the face and without air leakage; application of the face piece can be performed simultaneously with spinal precautions; the breathing apparatus unit is securely placed during victim movement so the face piece will not be pulled from the victim's face during movement; the level of air remaining in the victim's breathing apparatus is frequently accessed and communicated; and the victim is removed from the space without interruption of the air supply.

Enabling Learning Objectives

1. Describe capabilities and limitations of atmosphere supplying respirators (SCBA or SAR) for victims in confined space rescue
2. Describe expected victim air usage
3. Describe methods for applying face pieces to victims:
 - Wearing helmets
 - With spinal injuries
4. Describe methods for securing a victim's breathing apparatus unit when:
 - Packaged in litters
 - Attached to rope rescue systems
 - Being dragged along a horizontal plane
5. Describe communication methods in confined spaces
6. Apply a patent air supply to a victim in a confined space rescue
 - Assure there is no interruption of the breathing air supply, which could cause asphyxiation
 - Continuously check air systems for proper application and operation during movement
 - Failure to recognize an issue could result in the victim's death
7. Move the victim wearing breathing apparatus without interruption or compromise of their air supply or face piece seal
8. Monitoring the victim's air supply continuously during operations
9. Use communication methods that effectively convey information between rescuers inside and outside of the space

Discussion Questions

1. Determined by instructor

Application

1. Given a confined space evolution requiring respiratory protection, a live victim, an atmosphere-supplying respirator and associated equipment, and a confined space, have students apply an atmosphere-supplying respirator to a victim.

Instructor Notes

1. During training exercises, it is recommended that live victims have access to their facepieces so that they can remove the regulator or facepiece should accidental cessation of air supply occur. If a victim cannot access a facepiece due to packaging methods used or other conditions associated with the rescue simulation, it is highly recommended that the facepiece regulator be removed from the facepiece during that segment of the evolution. (NFPA 1006 – A.7.2.7)

CTS Guide Reference: CTS 2-7

Topic 11-2: Performing Full Spinal Victim Immobilization

Terminal Learning Objective

At the end of this topic a student, given a confined space incident requiring spinal precautions, a victim, full spinal immobilization equipment, a second rescuer to assist, and a confined space, will be able to perform full spinal immobilization of a victim inside a confined space so that the internal configuration of the space is clear and unobstructed so retrieval systems can be utilized for rescuers without possibility of entanglement, the victim can be easily seen from the outside of the space's primary access opening, rescuers can pass easily through the access/egress opening(s) with room to spare when PPE is worn in the manner recommended by the manufacturer, the space can accommodate two or more rescuers in addition to the victim, all hazards in and around the confined space have been identified and can be mitigated by using respiratory protection so that the victim's cervical spine is manually maintained in a neutral position immediately on contact and maintained until the body and head are completely immobilized and secure, victim movement onto the spinal immobilization device creates minimal manipulation of the spine, void spaces between the victim and immobilization device are padded as appropriate, victim securement to the immobilization device will prevent spinal manipulation during movement, and applicable local treatment protocols are followed.

Enabling Learning Objectives

1. Describe capabilities and limitations of long spine immobilization equipment for victims in confined space rescue
2. Describe methods for movement of a victim onto a long spine immobilizer with minimum spinal manipulation
3. Describe methods for securing a victim's body on a long spine immobilizer
4. Describe methods for securing a victim's head on a long spine immobilizer
5. Describe other long spinal immobilization treatment modalities and procedures
6. Maintain manual immobilization of a victim's head during the immobilization process
7. Assist in moving the victim to a long spine immobilizer with only two persons with minimal spinal manipulation
8. Apply void space padding as needed based on the immobilization device
9. Apply and secure the victim's body and head to a long spinal immobilization device

Discussion Questions

1. Determined by instructor

Application

1. Given a confined space evolution requiring spinal precautions, a victim, full spinal immobilization equipment, a second rescuer to assist, and a confined space, have students perform full spinal immobilization of a victim inside a confined space.

Instructor Notes

1. Teach both the cognitive and psychomotor portions of this lesson on the drill ground.

CTS Guide Reference: CTS 2-8

Topic 11-3: Performing Short Spinal Victim Immobilization

Terminal Learning Objective

At the end of this topic a student, given a confined space incident requiring spinal precautions, a stable victim, a short spinal immobilization device, a second rescuer to assist, and a confined space, will be able to perform short spinal immobilization of a victim inside a confined space so that the portal size or internal configuration will not allow the application of a full spine immobilization device, all hazards in and around the confined space have been identified and might be mitigated by using respiratory protection so that the victim's cervical spine is manually maintained in a neutral position immediately on contact and maintained until the short immobilization device is completely applied and secure, victim movement onto the spinal immobilization device creates minimal manipulation of the spine, void spaces between the victim and immobilization device are padded as appropriate, victim securement to the immobilization device will reduce spinal manipulation during movement, and applicable local treatment protocols are followed.

Enabling Learning Objectives

1. Describe capabilities and limitations of short spine immobilization equipment for victims in confined space rescue
2. Describe methods for movement of a victim onto a long spine immobilizer with minimum spinal manipulation
3. Describe methods for securing a victim onto a short spine immobilizer
4. Describe methods for securing a victim's head on a short spine immobilizer
5. Describe other short spinal immobilization treatment modalities and procedures
6. Maintain manual immobilization of a victim's head during the immobilization process
7. Assist in moving the victim to a short spine immobilizer with only two persons with minimal spinal manipulation
8. Apply void space padding as needed based on the immobilization device
9. Apply and secure the victim's upper body and head to a short spinal immobilization device

Discussion Questions

1. Determined by instructor

Application

1. Given a confined space incident evolution requiring spinal precautions, a stable victim, a short spinal immobilization device, a second rescuer to assist, and a confined space, have students perform short spinal immobilization of a victim inside a confined space.

Instructor Notes

1. Teach both the cognitive and psychomotor portions of this lesson on the drill ground.

CTS Guide Reference: CTS 3-4

Topic 11-4: Packaging a Victim in a Litter for Removal from a Horizontally Oriented Confined Space

Terminal Learning Objective

At the end of this topic a student, given a confined space rescue tool cache, a litter and associated rigging equipment, a space that provides enough internal and external clearance to maneuver a litter in and around the space, will be able to package the victim in a litter for removal from a horizontally oriented confined space so that the victim is secured to the litter, the litter is secured to the rescue system if needed, the litter will pass through the portal, the victim is protected during the extraction, and further harm to the victim is minimized.

Enabling Learning Objectives

1. Describe spinal management techniques
2. Describe victim packaging techniques
3. Describe how to use low-profile packaging devices and equipment
 - Full spine immobilization devices
 - Short spine immobilization devices
 - Cervical spine immobilization devices
 - Litters
4. Describe methods to reduce or avoid damage to equipment
5. Describe similarities and differences between packaging for confined spaces and other types of rescue
6. Immobilize a victim's spine
7. Package victims in litters or low-profile devices
8. Recognize and perform basic management of various traumatic injuries and medical conditions
9. Support respiratory efforts
10. Perform local treatment modalities as required based on the environment

Discussion Questions

1. Determined by instructor

Application

1. Given a confined space rescue tool cache, a horizontally oriented litter and associated rigging equipment, and a work area that provides enough horizontal clearance to extract a horizontally oriented litter and a victim, have students package a victim in a litter for removal from a horizontally oriented confined space.

Instructor Notes

1. Teach both the cognitive and psychomotor portions of this lesson on the drill ground.

CTS Guide Reference: CTS 2-11

Topic 11-5: Packaging a Victim in a Litter for Removal from a Vertically Oriented Confined Space

Terminal Learning Objective

At the end of this topic a student, given a confined space rescue tool cache, a vertically oriented litter and associated rigging equipment, a work area that provides enough vertical clearance to extract a vertically oriented litter and a victim, will be able to package the victim in a litter for removal from a vertically oriented confined space so that the victim is secured to the litter, the litter is secured to the rescue system in a vertically configuration, the litter will pass through the portal, the litter can be raised high enough to clear the portal, the victim is protected during the extraction, and further harm to the victim is minimized.

Enabling Learning Objectives

1. Describe spinal management techniques
2. Describe victim packaging techniques
3. Describe how to use low-profile packaging devices and equipment
 - Full spine immobilization devices
 - Short spine immobilization devices
 - Cervical spine immobilization devices
 - Litters
4. Describe methods to reduce or avoid damage to equipment,
5. Describe similarities and differences between packaging for confined spaces and other types of rescue
6. Immobilize a victim's spine
7. Package victims in litters or low-profile devices
8. Describe the pathophysiology of suspension trauma related to packaging devices
9. Recognize and perform basic management of various traumatic injuries and medical conditions
10. Support respiratory efforts
11. Perform local treatment modalities as required based on the environment

Discussion Questions

1. Determined by instructor

Application

1. Given a confined space rescue tool cache, a vertically oriented litter and associated rigging equipment, and a work area that provides enough vertical clearance to extract a vertically oriented litter and a victim, have students package a victim in a litter for removal from a vertically oriented confined space.

Instructor Notes

1. Teach both the cognitive and psychomotor portions of this lesson on the drill ground.

CTS Guide Reference: CTS 2-15

Topic 11-6: Removing a Victim Requiring Immediate Extraction to Prevent Imminent Death

Terminal Learning Objective

At the end of this topic a student, given a confined space rescue tool cache, victim harnesses and rigging, a victim who has been discovered to be in respiratory arrest, and conditions inside the space requiring immediate extraction to prevent imminent death of the victim, will be able to remove a victim so that the victim is rapidly secured in an extraction harness, the harness is secured to the rescue system, and the victim is removed from the space.

Enabling Learning Objectives

1. Describe rapid victim harness application techniques
2. Describe methods to reduce or avoid damage to equipment
3. Describe the similarities and differences between packaging for conditions of imminent danger compared to those that are stable
4. Recognize the immediate threat and need for rapid extraction
5. Rapid application of victim harnesses and rigging to rescue systems

Discussion Questions

1. Determined by instructor

Application

1. Given a confined space rescue tool cache, victim harnesses and rigging, a victim who has been discovered to be in respiratory arrest, and conditions inside the space requiring immediate extraction to prevent imminent death of the victim, have students remove a victim from a confined space.

Instructor Notes

1. Teach both the cognitive and psychomotor portions of this lesson on the drill ground.

CTS Guide Reference: CTS 2-16

Topic 11-7: Removing a Victim from a Horizontally Oriented Confined Space

Terminal Learning Objective

At the end of this topic a student, given a confined space rescue tool cache, rigging, and a packaged victim, will be able to remove a victim from a horizontally oriented confined space so that the victim is secured to the rescue system, the litter passes through the portal, the victim is protected during the extraction, and further harm to the victim is minimized.

Enabling Learning Objectives

1. Describe rigging application techniques
2. Describe methods to reduce or avoid damage to equipment
3. Apply rigging to assist horizontal movement
 - Inside confined space
 - Outside confined space

Discussion Questions

1. Determined by instructor

Application

1. Given a confined space rescue tool cache, rigging, and a packaged victim, have students remove a victim from a horizontally oriented confined space.

Instructor Notes

1. Teach both the cognitive and psychomotor portions of this lesson on the drill ground.

CTS Guide Reference: CTS 2-17

Topic 11-8: Removing a Victim from a Vertically Oriented Confined Space

Terminal Learning Objective

At the end of this topic a student, given a confined space rescue tool cache, rigging, and a packaged victim, will be able to remove a victim from a vertically oriented confined space so that the victim is secured to the rescue system, the litter passes through the portal, the victim is protected during the extraction, and further harm to the victim is minimized.

Enabling Learning Objectives

1. Describe rigging application techniques
2. Describe methods to reduce or avoid damage to equipment
3. Apply rigging to assist vertical movement

Discussion Questions

1. How would you remove a victim from a confined space with both horizontal and vertical orientations?

Application

1. Given a confined space rescue tool cache, rigging, and a packaged victim, have students remove a victim from a vertically oriented confined space.

Instructor Notes

1. None

CTS Guide Reference: CTS 2-18

Unit 12: Termination (Drill Ground)

Topic 12-1: Removing all Entrants from a Confined Space

Terminal Learning Objective

At the end of this topic a student, given PPE, rope and related rescue and retrieval systems, personnel to operate rescue and retrieval systems, and a confined space rescue tool cache, will be able to remove all entrants from a confined space so that internal obstacles and hazards are negotiated, all persons are extricated from a space in the selected transfer device, the victim and rescuers are decontaminated as necessary, and the victim is delivered to the EMS provider.

Enabling Learning Objectives

1. Describe operational protocols
2. Describe medical protocols (if applicable)
3. Describe decontamination procedures
4. Describe rescue and retrieval systems and equipment
5. Select and operate rescue and retrieval systems used for removal
6. Utilize medical equipment (if applicable)
7. Use equipment and procedures for decontamination

Discussion Questions

1. Determined by instructor

Application

1. Given PPE, rope and related rescue and retrieval systems, personnel to operate rescue and retrieval systems, and a confined space rescue tool cache, have students remove all entrants from a confined space.

Instructor Notes

1. Teach both the cognitive and psychomotor portions of this lesson on the drill ground.

CTS Guide Reference: CTS 2-19

Topic 12-2: Terminating a Technical Rescue Operation

Terminal Learning Objective

At the end of this topic a student, given an incident scenario, assigned resources, and site safety data, will be able to terminate a technical rescue operation so that rescuer risk and site safety are managed, scene security is maintained and custody transferred to a responsible party, personnel and resources are returned to a state of readiness, record-keeping and documentation occur, and post-event analysis is conducted.

Enabling Learning Objectives

1. Recognize hazards associated with safely concluding or demobilizing an event
 - Fatigued or injured personnel
 - Resources in transition from active event to return to service
2. Analyze risk
 - Scene safety
 - Rescuer safety
3. Apply risk/safety strategies
 - Active strategies
 - Nonintervention strategies (not removing (abandoning in place) equipment, denying entry to a site, etc.)
4. Use site control equipment and methods
5. Use data collection and management systems
6. Use asset and personnel tracking systems

Discussion Questions

1. Determined by instructor

Application

1. Given an incident evolution, assigned resources, and site safety data, have students terminate a technical rescue operation.

Instructor Notes

1. See corresponding classroom content in Topic 6-1.

CTS Guide Reference: CTS 2-20

How to Read a Course Plan

A course plan identifies the details, logistics, resources, and training and education content for an individual course. Whenever possible, course content is directly tied to a national or state standard. SFT uses the course plan as the training and education standard for an individual course. Individuals at fire agencies, academies, and community colleges use course plans to obtain their institution's consent to offer course and provide credit for their completion. Instructors use course plans to develop syllabi and lesson plans for course delivery.

Course Details

The Course Details segment identifies the logistical information required for planning, scheduling, and delivering a course.

Required Resources

The Required Resources segment identifies the resources, equipment, facilities, and personnel required to deliver the course.

Unit

Each Unit represents a collection of aligned topics. Unit 1 is the same for all SFT courses. An instructor is not required to repeat Unit 1 when teaching multiple courses within a single instructional period or academy.

Topics

Each Topic documents a single Terminal Learning Objective and the instructional activities that support it.

Terminal Learning Objective

A Terminal Learning Objective (TLO) states the instructor's expectations of student performance at the end of a specific lesson or unit. Each TLO includes a task (what the student must be able to do), a condition (the setting and supplies needed), and a standard (how well or to whose specifications the task must be performed). TLOs target the performance required when students are evaluated, not what they will do as part of the course.

Enabling Learning Objectives

The Enabling Learning Objectives (ELO) specify a detailed sequence of student activities that make up the instructional content of a lesson plan. ELOs cover the cognitive, affective, and psychomotor skills students must master to complete the TLO.

Discussion Questions

The Discussion Questions are designed to guide students into a topic or to enhance their understanding of a topic. Instructors may add to or adjust the questions to suit their students.

Application

The Application segment documents experiences that enable students to apply lecture content through cognitive and psychomotor activities, skills exercises, and formative testing. Application experiences included in the course plan are required. Instructors may add additional application experiences to suit their student population if time permits.

Instructor Notes

The Instructor Notes segment documents suggestions and resources to enhance an instructor's ability to teach a specific topic.

CTS Guide Reference

The CTS Guide Reference segment documents the standard(s) from the corresponding Certification Training Standard Guide upon which each topic within the course is based. This segment is eliminated if the course is not based on a standard.

Skill Sheet

The Skill Sheet segment documents the skill sheet that tests the content contained within the topic. This segment is eliminated if the course does not have skill sheets.

Confined Space Rescue Technician

(NFPA 1006: Confined Space Rescue
Operations/Technician)

Instructor Task Book (2021)



California Department of Forestry and Fire Protection
Office of the State Fire Marshal
State Fire Training

Overview

Authority

This instructor task book includes the training standards set forth in:

- NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)

Published: Month Year

Published by: State Fire Training, PO Box 944246, Sacramento, CA 94244-2460

Cover photo courtesy of Andrew Kibby, Battalion Chief, CAL FIRE.

Purpose

The State Fire Training instructor task book is a performance-based document. It lists the minimum requirements a candidate must meet in order to teach a specific State Fire Training course or course series.

Assumptions

With the exception of Fire Fighter and Emergency Vehicle Technician (EVT) certifications, a candidate may begin the task book initiation process upon completion of all required education components (courses).

Each job performance requirement (JPR) shall be evaluated after the candidate initiates the task book.

State Fire Training task books do not count towards the NWCG task book limit. There is no limit to the number of State Fire Training task books a candidate may pursue at one time as long as the candidate meets the initiation requirements for each.

It is the candidate's responsibility to routinely check the State Fire Training website for updates to an initiated task book. All State Fire Training issued updates to an initiated task book are required for task book completion.

A candidate must consistently work to complete all requirements documented in this instructor task book since its initiation date. Significant gaps between JPR sign offs may result in disqualification from teaching Confined Space Rescue: Technician as a registered instructor or a candidate must initiate a new task book using State Fire Training's current published version.

Roles and Responsibilities

Candidate

The candidate is the individual pursuing instructor registration.

Initiation

The candidate shall:

1. Complete the Initiation Requirements section.
 - Please print.
2. Complete a block on the Signature Verification page with a handwritten signature.

Completion

The candidate shall:

1. Complete all Job Performance Requirements.
 - Ensure that an evaluator initials, signs, and dates each task to verify completion.
2. Complete the Completion Requirements section.
3. Sign and date the Candidate verification section on the Review and Approval page with a handwritten signature.
4. Obtain their fire chief's handwritten (not stamped) signature on the Fire Chief verification section on the Review and Approval page.
5. Create and retain a physical or high-resolution digital copy of the completed task book.

Submission

The candidate shall:

1. Submit a copy (physical or digital) of the completed task book and any supporting documentation to State Fire Training.
 - See Submission and Review below.

A candidate should not submit a task book until they have completed all requirements and obtained all signatures. State Fire Training will reject and return an incomplete task book.

Evaluator

An evaluator is any individual who verifies that the candidate can satisfactorily execute a job performance requirement (JPR).

A qualified evaluator is a Registered Instructor of Confined Space Rescue: Technician, designated by the candidate's fire chief (or authorized designee) and shall possess the equivalent or higher-level certification. If no such evaluator is present within the organization, the fire chief (or authorized designee) shall designate an individual with more experience than the candidate and a demonstrated ability to execute the job performance requirements. For instructor task books that do not require fire chief initiation, academy instructors serve as or designate evaluators.

An instructor task book may have more than one evaluator.

All evaluators shall:

1. Complete a block on the Signature Verification page with a handwritten signature.
2. Review and understand the candidate's instructor task book requirements and responsibilities.
3. Verify the candidate's successful completion of one or more job performance requirements through observation.
 - Do not evaluate any job performance requirement (JPR) until after the candidate initiates the task book.
 - Sign all appropriate lines in the instructor task book with a handwritten signature or approved digital signature (e.g., DocuSign or Adobe Sign; a scanned copy of a signature is not acceptable) to record demonstrated performance of tasks.

Fire Chief

The fire chief is the individual who initiates (when applicable) and then reviews and confirms the completion of a candidate's instructor task book.

A fire chief may identify an authorized designee already on file with State Fire Training to fulfill any task book responsibilities assigned to the fire chief. (See *State Fire Training Procedures Manual*, 4.2.2: Authorized Signatories)

Initiation

The fire chief shall:

1. Review and understand the candidate's instructor task book requirements and responsibilities.
2. Complete a block on the Signature Verification page with a handwritten signature.
3. Designate qualified evaluators.

Completion

The fire chief shall:

1. Confirm that the candidate has obtained the appropriate signatures to verify successful completion of each job performance requirement.
 - Ensure that all job performance requirements were evaluated after the initiation date.
2. Confirm that the candidate meets the Completion Requirements.
3. Sign and date the Fire Chief verification statement under Review and Approval with a handwritten signature.
 - If signing as an authorized designee, verify that your signature is on file with State Fire Training.

Submission and Review

A candidate should not submit a task book until they have completed all requirements and obtained all signatures. State Fire Training will reject and return an incomplete task book.

To submit a completed task book, please send the following items to the address below:

1. A copy of the completed task book (candidate may retain the original)
2. All supporting documentation
3. Payment

State Fire Training
Attn: Instructor Registration
PO Box 944246
Sacramento, CA 94244-2460

State Fire Training reviews all submitted task books.

- If the task book is complete, State Fire Training will authorize the task book and retain a digital copy of the authorized task book in the candidate's career file.
- If the task book is incomplete, State Fire Training will return the task book with a notification indicating what needs to be completed prior to resubmission.

Completion of this instructor task book is one step in the instructor registration process. Please refer to the *State Fire Training Procedures Manual* for the complete list of qualifications required to teach Confined Space Rescue Technician.

Initiation Requirements

The following requirements must be completed prior to initiating this task book.

Candidate Information

Name: _____

SFT ID Number: _____

Fire Agency: _____

Initiation Date: _____

Prerequisites

The candidate meets the following prerequisites.

1. SFT Primary Instructor qualifications (*See State Fire Training Procedures Manual 6.2.1: Qualifications*)
2. OSFM certified Fire Fighter 2 or ISFAC/ProBoard Fire Fighter 2

Include documentation to verify prerequisite requirements when you submit your instructor task book unless verification is already documented in your SFT User Portal.

Education

That candidate has completed the following courses.

1. Confined Space Rescue: Awareness
2. Confined Space Rescue: Technician

Include documentation to verify education requirements when you submit your instructor task book unless verification is already documented in your SFT User Portal.

Fire Chief Approval

State Fire Training confirms that a fire chief's approval is not required to initiate this task book.

Signature Verification

The following individuals have the authority to verify portions of this instructor task book using the signature recorded below.

Please print except for the Signature line where a handwritten signature is required.
Add additional signature pages as needed.

Name: _____
Job Title: _____
Organization: _____
Signature: _____

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Job Title: _____
Organization: _____
Signature: _____

Job Performance Requirements

Job Performance Requirements

The candidate must complete each job performance requirement (JPR) in accordance with the standards of the authority having jurisdiction (AHJ) or the National Fire Protection Association (NFPA), whichever is more restrictive.

When California requirements exceed or require revision to the NFPA standard, the corresponding Office of the State Fire Marshal approved (OSFM) additions or revisions appear in italics.

All JPRs must be completed within a California fire agency or State Fire Training Accredited Regional Training Programs (ARTP).

Each JPR shall be evaluated after the candidate initiates the task book.

Each task must be performed twice.

- The two instances must occur during two different courses.
- The same evaluator cannot sign off on the same task twice.

Examples of correct and incorrect evaluation:

Correct: Task completed during two separate courses and evaluated by two separate individuals.

1. Assemble a comprehensive burn plan (“burn book”) that contains all documentation necessary to conduct a live fire training evolution in accordance with NFPA standards and the policies and procedures of State Fire Training (SFT) and the authority having jurisdiction (AHJ).	1 st Evaluation			2 nd Evaluation		
	Course Code	Date	Initials	Course Code	Date	Initials
a. Describe purpose of a live fire burn plan	AAA123	2/8/18	JAS	BBB123	5/15/18	CWJ
b. Identify components of a live fire burn plan (“burn book”)	AAA123	2/8/18	JAS	BBB123	5/15/18	CWJ
c. Identify records-retention requirements for burn plans	AAA123	2/8/18	JAS	BBB123	5/15/18	CWJ

Incorrect: Task completed twice during one course but evaluated by two separate individuals.

1. Assemble a comprehensive burn plan (“burn book”) that contains all documentation necessary to conduct a live fire training evolution in accordance with NFPA standards and the policies and procedures of State Fire Training (SFT) and the authority having jurisdiction (AHJ).	1 st Evaluation			2 nd Evaluation		
	Course Code	Date	Initials	Course Code	Date	Initials
a. Describe purpose of a live fire burn plan	AAA123	2/8/18	JAS	AAA123	2/8/18	CWJ
b. Identify components of a live fire burn plan (“burn book”)	AAA123	2/8/18	JAS	AAA123	2/8/18	CWJ
c. Identify records-retention requirements for burn plans	AAA123	2/8/18	JAS	AAA123	2/8/18	CWJ

Incorrect: Task completed during two separate courses but evaluated by the same individual.

1. Assemble a comprehensive burn plan (“burn book”) that contains all documentation necessary to conduct a live fire training evolution in accordance with NFPA standards and the policies and procedures of State Fire Training (SFT) and the authority having jurisdiction (AHJ).	1 st Evaluation			2 nd Evaluation		
	Course Code	Date	Initials	Course Code	Date	Initials
a. Describe purpose of a live fire burn plan	AAA123	2/8/18	JAS	BBB123	5/15/18	JAS
b. Identify components of a live fire burn plan (“burn book”)	AAA123	2/8/18	JAS	BBB123	5/15/18	JAS
c. Identify records-retention requirements for burn plans	AAA123	2/8/18	JAS	BBB123	5/15/18	JAS

Confined Space Rescue Technician Instructor

Operations

1. Initiate a search inside a confined space in those areas immediately visible from the confined space entry portal.	1st Evaluation			2nd Evaluation		
	Course Code	Date	Initials	Course Code	Date	Initials
a. Establish search parameters						
b. Establish victim profile						
c. Question people in or around search area						
d. Update and relay information to command						
e. Match personnel assignments to their expertise						
f. Locate and identify all victims inside space that are immediately visible from outside portal						
g. Manage applicable technical rescue concerns						
h. Minimize risks to searchers						
i. Account for all searchers						
2. Perform size-up of a confined space rescue incident.	1st Evaluation			2nd Evaluation		
	Course Code	Date	Initials	Course Code	Date	Initials
a. Determine type of rescue						
b. Identify number of victims						
c. Establish last reported location of all victims						
d. Identify and interview witnesses and reporting parties						

e. Assess resource needs						
f. Identify search parameters						
g. Obtain information required to develop incident action plan						
3. Conduct monitoring of the environment.	1st Evaluation			2nd Evaluation		
	Course Code	Date	Initials	Course Code	Date	Initials
a. Obtain representative sample of space						
b. Make accurate readings						
c. Document readings						
d. Determine effects of ventilation in determining atmospheric conditions and conditions of space for exposures to existing or potential environmental hazards						
4. Assess the incident.	1st Evaluation			2nd Evaluation		
	Course Code	Date	Initials	Course Code	Date	Initials
a. Identify general area and space-specific hazards						
b. Interview bystanders and victims						
c. Perform immediate and ongoing monitoring of space						
d. Determine victims' conditions and location						
e. Perform risk/benefit analysis						
f. Identify methods of ingress and egress for rescuer and victims						
g. Determine rescue systems for victim removal						

h. Establish emergency means of retrieval for rescue entrants						
5. Control hazards.	1st Evaluation			2nd Evaluation		
	Course Code	Date	Initials	Course Code	Date	Initials
a. Establish rescue area						
b. Control access to incident scene						
c. Protect rescuers from exposure to hazardous materials and atmospheres, all forms of harmful energy releases, and physical hazards						
d. Protect victims from further harm						
6. Apply and use self-contained breathing apparatus (SCBA) as a rescue entrant.	1st Evaluation			2nd Evaluation		
	Course Code	Date	Initials	Course Code	Date	Initials
a. Ensure internal configuration of space is clear and unobstructed so retrieval systems can be utilized for rescuers without possibility of entanglement						
b. Ensure victim can be seen easily from outside of space's primary access opening						
c. Ensure rescuers can pass easily through access/egress opening(s) with room to spare when PPE is worn in manner recommended by manufacturer						
d. Ensure space can accommodate two or more rescuers in addition to victim						
e. Identify all hazards in and around confined space and mitigate using respiratory protection						
f. Ensure rescue entrant passes through portal without removal of SCBA						
g. Perform assigned rescue duty						

h. Ensure rescue entrant frequently assesses level of air remaining in cylinder and communicates this level to rescuers outside of space						
i. Ensure rescue entrant exits space prior to activation of low-pressure alarm on SCBA						
7. Apply an atmosphere-supplying respirator to a victim.	1st Evaluation			2nd Evaluation		
	Course Code	Date	Initials	Course Code	Date	Initials
a. Ensure internal configuration of space is clear and unobstructed so retrieval systems can be utilized for rescuers without possibility of entanglement						
b. Ensure victim can be easily seen from outside of space’s primary access opening						
c. Ensure rescuers can pass easily through access/egress opening(s) with room to spare when PPE is worn in manner recommended by manufacturer						
d. Ensure space can accommodate two or more rescuers in addition to victim						
e. Identify all hazards in and around confined space and mitigate using respiratory protection						
f. Apply apparatus face piece rapidly and position properly on face and without air leakage						
g. Perform application of face piece simultaneously with spinal precautions						
h. Place breathing apparatus unit securely during victim movement so face piece will not be pulled from victim’s face during movement						
i. Assess and communicate level of air remaining in victim’s breathing apparatus frequently						
j. Remove victim from space without interruption of air supply						

8. Perform full spinal immobilization of a victim inside a confined space.	1 st Evaluation			2 nd Evaluation		
	Course Code	Date	Initials	Course Code	Date	Initials
a. Ensure internal configuration of space is clear and unobstructed so retrieval systems can be utilized for rescuers without possibility of entanglement						
b. Ensure victim can be easily seen from outside of space’s primary access opening						
c. Ensure rescuers can pass easily through access/egress opening(s) with room to spare when PPE is worn in manner recommended by manufacturer						
d. Ensure space can accommodate two or more rescuers in addition to victim						
e. Identify all hazards in and around confined space and mitigate using respiratory protection						
f. Maintain victim’s cervical spine manually in neutral position immediately on contact						
g. Maintain until body and head are completely immobilized and secure						
h. Ensure victim movement onto spinal immobilization device creates minimal manipulation of spine						
i. Pad void spaces between victim and immobilization device as appropriate						
j. Ensure victim securement to immobilization device will prevent spinal manipulation during movement						
k. Follow applicable local treatment protocols						

9. Prepare for entry into horizontally oriented confined space.	1 st Evaluation			2 nd Evaluation		
	Course Code	Date	Initials	Course Code	Date	Initials
a. Ensure internal configuration of space is clear and unobstructed so retrieval systems can be utilized for rescuers without possibility of entanglement						
b. Ensure victim can be easily seen from outside of space’s primary access opening						
c. Ensure rescuers can pass easily through access/egress opening(s) with room to spare when PPE is worn in manner recommended by the manufacturer						
d. Ensure space can accommodate two or more rescuers in addition to the victim						
e. Identify all hazards in and around the confined space and mitigate using respiratory protection so that victim communication is established when possible						
f. Initiate continuous atmospheric monitoring						
g. Verify rescuer readiness						
h. Identify and evaluate rescuers’ limitation						
i. Reassign and replace rescuers unsuitable to confined space entry operations						
j. Determine route and methods of entry						
k. Plan rescuer evacuation						

10. Enter a horizontally oriented confined space for rescue.	1 st Evaluation			2 nd Evaluation		
	Course Code	Date	Initials	Course Code	Date	Initials
a. Ensure internal configuration of space is clear and unobstructed so retrieval systems can be utilized for rescuers without possibility of entanglement						
b. Ensure victim can be easily seen from outside space's primary access opening						
c. Ensure rescuers can pass easily through access/egress opening(s) with room to spare when PPE is worn in manner recommended by manufacturer						
d. Ensure space can accommodate two or more rescuers in addition to victim						
e. Identify all hazards in and around confined space and mitigate using respiratory protection so that victim is contacted						
f. Establish and maintain controlled confined space entry						
g. Monitor atmosphere continuously						
h. Assess victim's mental and physical conditions further						
i. Ensure rescue entrant is aided by portable lighting						
j. Attach rescue entrants to retrieval lines at all times						
k. Initiate patient care						
l. Package patient to restrictions of space						
m. Initiate patient removal						

11. Package the victim in a litter for removal from a horizontally oriented confined space.	1 st Evaluation			2 nd Evaluation		
	Course Code	Date	Initials	Course Code	Date	Initials
a. Secure victim to litter						
b. Secure litter to rescue system if needed						
c. Ensure litter will pass through portal						
d. Protect victim during extraction						
e. Minimize further harm to victim						
12. Assemble an artificial high directional (AHD) for application of a high point of attachment to a confined space rescue system.	1 st Evaluation			2 nd Evaluation		
	Course Code	Date	Initials	Course Code	Date	Initials
a. Assemble AHD in accordance with manufacturer’s recommendations						
b. Attach and secure rescue systems to AHD						
c. Ensure AHD provides enough clearance above portal to fully extract victim packaged in vertically oriented litter						
13. Prepare for entry into vertically oriented confined space.	1 st Evaluation			2 nd Evaluation		
	Course Code	Date	Initials	Course Code	Date	Initials
a. Ensure internal configuration of space is clear and unobstructed so retrieval systems can be utilized for rescuers without possibility of entanglement						
b. Ensure victim can be easily seen from outside of space’s primary access opening						
c. Ensure rescuers can pass easily through access/egress opening(s) with room to spare when PPE is worn in manner recommended by manufacturer						

d. Ensure space can accommodate two or more rescuers in addition to victim						
e. Identify all hazards in and around the confined space and mitigate using respiratory protection so that victim communication is established when possible						
f. Initiate continuous atmospheric monitoring						
g. Verify rescuer readiness						
h. Identify and evaluate rescuers' limitations						
i. Reassign and replace rescuers unsuitable to entry operations						
j. Determine route and methods of confined space entry						
k. Plan rescuer evacuation						
14. Enter a vertically oriented confined space for rescue.	1st Evaluation			2nd Evaluation		
	Course Code	Date	Initials	Course Code	Date	Initials
a. Ensure internal configuration of space is clear and unobstructed so retrieval systems can be utilized for rescuers without possibility of entanglement						
b. Ensure victim can be easily seen from outside of space's primary access opening						
c. Ensure rescuers can pass easily through access/egress opening(s) with room to spare when PPE is worn in manner recommended by manufacturer						
d. Ensure space can accommodate two or more rescuers in addition to victim						
e. Identify all hazards in and around confined space and mitigated by using respiratory protection so that victim is contacted						

f. Establish and maintain controlled confined space entry						
g. Monitor atmosphere continuously						
h. Assess victim’s mental and physical conditions further						
i. Initiate patient care						
j. Package patient to restrictions of space						
k. Initiate patient removal						
15. Package the victim in a litter for removal from a vertically oriented confined space.	1st Evaluation			2nd Evaluation		
	Course Code	Date	Initials	Course Code	Date	Initials
a. Secure victim to litter						
b. Secure litter to rescue system in vertical configuration						
c. Ensure litter will pass through portal						
d. Raise litter high enough to clear portal						
e. Protect victim during extraction						
f. Minimize further harm to victim						
16. Remove a victim requiring immediate extraction to prevent imminent death.	1st Evaluation			2nd Evaluation		
	Course Code	Date	Initials	Course Code	Date	Initials
a. Secure victim rapidly in extraction harness						
b. Secure harness to rescue system						
c. Remove victim from space						

17. Remove a victim from a horizontally oriented confined space.	1 st Evaluation			2 nd Evaluation		
	Course Code	Date	Initials	Course Code	Date	Initials
a. Secure the victim to the rescue system						
b. Ensure the litter passes through the portal						
c. Protect the victim during the extraction						
d. Minimize further harm to the victim						
18. Remove a victim from a vertically oriented confined space.	1 st Evaluation			2 nd Evaluation		
	Course Code	Date	Initials	Course Code	Date	Initials
a. Secure the victim to the rescue system						
b. Ensure the litter passes through the portal						
c. Protect the victim during the extraction						
d. Minimize further harm to the victim						
19. Remove all entrants from a confined space.	1 st Evaluation			2 nd Evaluation		
	Course Code	Date	Initials	Course Code	Date	Initials
a. Negotiate internal obstacles and hazards						
b. Extricate all persons from space in selected transfer device						
c. Decontaminate victim and rescuers as necessary						
d. Deliver victim to EMS provider						

20. Terminate a technical rescue operation.	1 st Evaluation			2 nd Evaluation		
	Course Code	Date	Initials	Course Code	Date	Initials
a. Manage rescuer risk and site safety						
b. Maintain scene security						
c. Transfer custody to responsible party						
d. Return personnel and resources to state of readiness						
e. Ensure record-keeping and documentation occur						
f. Conduct post-event analysis						

Technician

21. Initiate a search inside a confined space in those areas not immediately visible from the confined space entry portal.	1 st Evaluation			2 nd Evaluation		
	Course Code	Date	Initials	Course Code	Date	Initials
a. Establish search parameters						
b. Establish victim profile						
c. Acquire search result information and relay to command						
d. Match personnel assignments to their expertise						
e. Locate and identify all victims inside space						
f. Manage applicable technical rescue concerns						
g. Minimize risks to searchers						
h. Account for all searchers						

22. Preplan a confined space incident.	1 st Evaluation			2 nd Evaluation		
	Course Code	Date	Initials	Course Code	Date	Initials
a. Use standard approach during confined space rescue emergency						
b. Recognize and document hazards						
c. Identify and document isolation methods						
d. Identify and document all accesses to location of confined space entry opening						
e. Identify and document all types of confined space entry openings						
f. Document internal configurations and special resource needs for future rescuer use						
23. Apply and use supplied-air respirators (SARs) as a rescue entrant.	1 st Evaluation			2 nd Evaluation		
	Course Code	Date	Initials	Course Code	Date	Initials
a. Ensure internal configuration of space will not create entanglement hazards when using air lines						
b. Ensure victim cannot be seen from outside of space's primary access opening						
c. Ensure portal size and configuration will not allow a rescuer to pass through access/egress opening(s) using SCBA when worn in manner recommended by manufacturer						
d. Identify all hazards in and around confined space and mitigate using respiratory protection so that rescue entrant passes through portal without removal of SAR						
e. Perform assigned rescue duty						

24. Perform short spinal immobilization of a victim inside a confined space.	1 st Evaluation			2 nd Evaluation		
	Course Code	Date	Initials	Course Code	Date	Initials
a. Ensure portal size or internal configuration will not allow application of full spine immobilization device						
b. Identify all hazards in and around confined space and mitigate using respiratory protection so that victim’s cervical spine is manually maintained in neutral position immediately on contact and maintained until short immobilization device is completely applied and secure						
c. Ensure victim movement onto spinal immobilization device creates minimal manipulation of spine						
d. Pad void spaces between the victim and immobilization device as appropriate						
e. Secure victim to immobilization device to reduce spinal manipulation during movement						
f. Follow applicable local treatment protocols						
25. Prepare for entry into the confined space with a hazardous atmosphere.	1 st Evaluation			2 nd Evaluation		
	Course Code	Date	Initials	Course Code	Date	Initials
a. Make entry into confined space that contains one or more of the following characteristics: <ul style="list-style-type: none"> • Internal configuration of space could create entanglement hazards and retrieval might not be effective • Victim cannot be seen from outside of space’s primary access opening • Portal size and configuration will not allow rescuer to pass through access/egress opening(s) using SCBA 						

when worn in manner recommended by manufacturer						
b. Identify hazards in and around confined space and mitigate using respiratory protection so that continuous atmospheric monitoring is initiated						
c. Assess atmosphere to ensure manageability with atmosphere-supplying respirators						
d. Establish victim communication when possible						
e. Use atmosphere-supplying respirators while within the space						
f. Rapidly apply atmosphere-supplying respirators to victim						
g. Verify rescuer readiness						
h. Identify and evaluate rescuer limitations						
i. Reassign and replace rescuers unsuitable to entry operations						
j. Determine route and methods of confined space entry						
k. Plan rescuer evacuation						
26. Enter a confined space with atmospheric hazards.	1st Evaluation			2nd Evaluation		
	Course Code	Date	Initials	Course Code	Date	Initials
a. Ensure internal configuration of space could create entanglement hazards and retrieval might not be effective						
b. Ensure victim cannot be seen from outside of space's primary access opening						
c. Ensure portal size and configuration will allow rescuer to pass through access/egress opening(s) using SCBA when worn in manner recommended by manufacturer						

d. Identify all hazards in and around confined space and mitigate using respiratory protection						
e. Establish and maintain controlled confined space entry						
f. Monitor atmosphere continuously						
g. Protect rescuers and patient(s) from hazards						
h. Assess victim's mental and physical conditions further						
i. Initiate patient care						
j. Package patient to restrictions of space						
k. Initiate patient removal						

Completion Requirements

The following requirements must be completed prior to submitting this task book.

Experience

State Fire Training confirms that there are no experience requirements for instructor registration.

Position

State Fire Training confirms that there are no position requirements for instructor registration.

Updates

The candidate has completed and enclosed all updates to this certification task book released by State Fire Training since its initial publication.

Number of enclosed updates: _____

Completion Timeframe

The candidate has consistently worked to complete all requirements documented in this instructor task book since its initiation date. The candidate acknowledges that significant gaps between JPR sign offs may result in disqualification from teaching Confined Space Rescue: Technician as a registered instructor or the candidate must initiate a new task book using State Fire Training's current published version.

Initiation Date (see Initiation Date under Initiation Requirements): _____

Review and Approval

Candidate

Candidate (please print): _____

I, the undersigned, am the person applying to teach Confined Space Rescue: Technician. I hereby certify under penalty of perjury under the laws of the State of California, that the completion of all requirements documented herein is true in every respect. I understand that misstatements, omissions of material facts, or falsification of information or documents may be cause for rejection or revocation.

Signature: _____ Date: _____

Fire Chief

Candidate's Fire Chief (please print): _____

I, the undersigned, am the person authorized to verify the candidate's qualifications to teach Confined Space Rescue: Technician. I hereby certify under penalty of perjury under the laws of the State of California, that the completion of all requirements documented herein are true in every respect. I understand that misstatements, omissions of material facts, or falsification of information or documents may be cause for rejection.

Signature: _____ Date: _____



Confined Space Rescue Technician (2021) Training Record

Name: _____

SFT ID Number: _____

Skill		CSRT Topic	Evaluator Initials
Operations			
1.	Initiate a search inside a confined space in those areas immediately visible from the confined space entry portal	9-3	
2.	Perform size-up of a confined space rescue incident	8-2	
3.	Conduct monitoring of the environment	8-3	
4.	Assess the incident	8-1	
5.	Control hazards	8-4	
6.	Apply and use self-contained breathing apparatus (SCBA) as a rescue entrant	9-1	
7.	Apply an atmosphere-supplying respirator to a victim	9-2	
8.	Perform full spinal immobilization of a victim inside a confined space	11-2	
9.	Prepare for entry into horizontally oriented confined space	9-5	
10.	Enter a horizontally oriented confined space for rescue	10-2	
11.	Package the victim in a litter for removal from a horizontally oriented confined space	11-4	
12.	Assemble an artificial high directional (AHD) for application of a high point of attachment to a confined space rescue system	9-7	
13.	Prepare for entry into vertically oriented confined space	9-6	
14.	Enter a vertically oriented confined space for rescue	10-3	
15.	Package a victim in a litter for removal from a vertically oriented confined space	11-5	
16.	Remove a victim requiring immediate extraction to prevent imminent death	11-6	
17.	Remove a victim from a horizontally oriented confined space	11-7	
18.	Remove a victim from a vertically oriented confined space	11-8	
19.	Remove all entrants from a confined space	12-1	

20.	Terminate a technical rescue operation	12-2	
Technician			
21.	Initiate a search inside a confined space in those areas not immediately visible from the confined space entry portal	10-4	
22.	Preplan a confined space incident	7-1	
23.	Apply and use supplied-air respirators (SARs) as a rescue entrant	11-1	
24.	Perform short spinal immobilization of a victim inside a confined space	11-3	
25.	Prepare for entry into the confined space with a hazardous atmosphere	9-4	
26.	Enter a confined space with atmospheric hazards	10-1	

A candidate has successfully completed the skill when they perform it to the corresponding Terminal Learning Objective standard found in State Fire Training’s Confined Space Rescue: Technician (2021) course.

SFT Course ID:

Course Delivery Date:

Instructor of Record:

Instructor SFT ID Number:
