



DEPARTMENT OF FINANCIAL SERVICES

Division of State Fire Marshal
Bureau of Fire Standards and Training

Title: RN3275 FLUSAR Confined Space Technician

Effective Date: May 01, 2016

Revision Date: July 11, 2019

Section I - Course Information

Course Title: FLUSAR Confined Space Technician

Course Number(s): RN3275

Class Days/Time: If being taught at the Florida State Fire College Campus 11655 NW Gainesville Road, Ocala, FL 34482 Bldg. C – Classrooms – Monday - Friday 8 a.m.- 5 p.m.

Section II - Points of Contact

Training Supervisor:

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Section III – Course Description

Confined Space: Technician is a 16-hour course designed for members of confined-space rescue teams and is based on standards established in NFPA 1670. Students will perform victim retrieval in simulated and actual confined spaces. Students will perform skills to the technician level including:

- Simple/Compound rope hauling systems
- Advanced confined-space entry
- Rope rigging
- Extrication techniques
- Hazard identification, and hazard mitigation skills

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Section IV - Course Materials, Grading, and Attendance

Recommended Book: Copy of NFPA 1670 and Florida Confined Space Rescue Technician Task Book (DFS-K4-2149)

Prerequisite(s): RN3265 FLUSAR Confined Space Operations and RN3268 FLUSAR Rope Rescue Operations

Contact Hours: This class has 16 contact hours.

Continuing Educations Units (CEU's): None

Pre-Course Assignment: None

Required Materials: A complete materials list can be obtained by going to the provided hyper link at: <http://www.flrules.org/Gateway/reference.asp?No=Ref-07247>

NOTE: Students must bring gloves, hardhat and proper attire for confined space rescue exercises.

Grading: Students must achieve a minimum cumulative score of 70% to pass this course. Course grades are determined from assignments and activities including, but not limited to homework, projects, quizzes, exams, presentations and practical skills. The instructor also has the discretion to award **(but not deduct)** points based on course participation. Below is the breakdown of the final accumulative grading:

- Homework 20 points
- Final Written Exam 40 points
- Final Practical Exam 40 points

Attendance: Students are required to attend all sessions of the course.

- Excused absences - Students are permitted excused absences totaling no more than 10% of class (1.5 hours maximum); the instructor shall be the sole determining authority in the determination of an excused absence and may assign supplemental work to make up for missed class time.
- Unexcused absences - The instructor shall be the sole determining authority in the determination of an unexcused absence (i.e. "no call, no show"). The instructor has no obligation to offer the student an opportunity to make up assignments, including quizzes and/or exams, but may do so at his/her discretion.

Section V - Instructor Qualifications

As per Chapter 69A-37.065, Florida Administrative Codes, *Programs of Study and Vocational Courses*, instructors must meet the following qualifications to be authorized to teach this course:

F.A.C. 69A-37.065(7)(f)(3) Instructor Qualifications: An instructor providing training under this paragraph (f), must be qualified by the Bureau of Fire Standards and Training within the Division. Qualified instructors are:

3. Instructor Qualifications. An instructor providing training under this section must be qualified by the Bureau. All instructors shall submit an Instructor Approval Request Form DFS-K4-2168, at this link: https://floridastatefirecollege.org/provider/pr_instructor_app.asp, which is incorporated by reference in subsection 69A-37.039(2), F.A.C., and can be obtained where indicated in subsection 69A-37.039(1), F.A.C., and be approved by the Bureau prior to the first day of the course. Qualified instructors are:

- a. Instructors with requisite faculty credentials for the academic institution that is registered in the Florida Department of Education Statewide Course Numbering System to teach the course; or
- b. Instructors with requisite faculty credentials as determined by the United States Fire Administration – National Fire Academy; or
- c. Instructors with requisite faculty credentials as determined by the respective regionally accredited or nationally accredited university or college; or
- d. Instructors who hold an active Single Course Exemption Certification issued by the Division as outlined in subsection 69A-37.059(4), F.A.C.; or
- e. Florida Instructor I, II, or III, as defined in rule 69A-37.059, F.A.C., who has completed the required courses under this paragraph (7)(f), which are recorded in the Bureau’s database. These instructors are known as Adjunct Instructors and are approved to teach courses under the supervision of a Lead Instructor; or
- f. Florida Instructor I, II, or III, as defined in rule 69A-37.059, F.A.C., who has completed the required courses under this paragraph (7)(f), and has previously taught this course as an Adjunct Instructor which was recorded in the Bureau’s database. These instructors are known as Lead Instructors.

Section VI – Job Performance Requirements Applicable Fire and Life Safety Initiatives

Given information from discussion and reading materials, the student will satisfy the Job Performance Requirements (JPR) of the applicable National Fire Protection Association (NFPA) standards, as well as any applicable skill sheets.

NFPA 1670, *Standard on Operations and Training for Technical Search and Rescue Incidents*, 2014 Edition

Chapter 7 Confined Space Search and Rescue

7.1 General Requirements.

7.1.1 Organizations operating at confined space incidents shall meet the requirements specified in Chapter 4.

7.1.2* The requirements of this chapter shall apply to organizations that provide varying degrees of response to confined space emergencies.

7.1.3 All confined space rescue services shall meet the requirements defined in 7.1.3.1 through 7.1.3.12.

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7.1.3.1 Each member of the rescue service shall be provided with, and trained to use properly, the PPE and rescue equipment necessary for making rescues from confined spaces according to his or her designated level of competency.

7.1.3.2 Each member of the rescue service shall be trained to perform the assigned rescue duties corresponding to his or her designated level of competency.

7.1.3.3 Each member of the rescue service shall also receive the training required of authorized rescue entrants.

7.1.3.4* Each member of the rescue service shall practice making confined space rescues once every 12 months, in accordance with the requirements of 4.1.10 of this document, by means of simulated rescue operations in which he or she removes dummies, mannequins, or persons from actual confined spaces or from representative confined spaces resembling all those to which the rescue service could be required to respond in an emergency within their jurisdiction.

7.1.3.5 Representative confined spaces should – with respect to opening size, configuration, and accessibility – simulate the types of confined spaces from which rescue is to be performed.

7.1.3.6 Each member of the rescue service shall be certified to the level of first responder or equivalent according to the U.S Department of Transportation (DOT) *First Responder Guidelines*

7.1.3.7 Each member of the rescue service shall successfully complete a course in cardiopulmonary resuscitation (CPR) taught through the American Heart Association (AHA) to the level of a “Health Care Provider.” through the American Red Cross (ARC) to the “CPR for the Professional Rescuer” level, or through the National Safety Council’s equivalent course of study.

7.1.3.8* The rescuer service shall be capable of responding in a timely manner to rescue summons.

7.1.3.9 Each member of the rescue service shall be equipped, trained, and capable of functioning to perform confined space rescues within the area for which they are responsible at their designated level of competency.

7.1.3.10 The requirements of 7.1.3.9 shall be confirmed by an annual evaluation of the rescue service’s capabilities to perform confined space rescues in terms of overall timeliness, training, and equipment and to perform safe effective rescue in those types of spaces to which the team must respond.

7.1.3.11 Each member of the rescue service shall be aware of the hazards he or she could confront when called on to perform rescue within confined spaces for which the service is responsible.

7.1.3.12 If required to provide confined space rescue within U.S. federally regulated industrial facilities, the rescue service shall have access to all confined spaces from which rescue could be necessary so that they can develop rescue plans and practice rescue operations according to their designated level of competency.

7.1.4* The role of a Confined Space Rescue Team is intended to include entry into the space to perform a rescue and, as a minimum, shall be staffed to provide sufficient members with the following exclusive functions:

- (1)*Entrant/Entry team of sufficient size and capability to perform the rescue
- (2)*Backup team of sufficient size to provide immediate assistance to, or rescue of entry team members who become ill or injured and are unable to perform self-rescue
- (3) Rescue attendant whose function is to deny unauthorized persons access, monitor conditions in the space and the status of all entrants
- (4) Supervisor who shall maintain control of the entire operation and be knowledgeable in all team functions

7.2 Awareness Level.

7.2.1 Organizations operating at the awareness level for confined space search and rescue incidents shall meet the requirements specified in Sections 7.2 and 5.2 (awareness level for rope rescue).

7.2.2 The organization shall have an appropriate number of personnel meeting the requirements of Chapter 4 of NFPA 472, Standard for Competence of Responders to Hazardous Materials/Weapons of Mass Destruction Incidents, commensurate with the origination's needs.

7.2.3 Organizations at the awareness level shall be responsible for performing certain nonentry rescue (retrieval) operations.

7.2.4 Organizations operating at the awareness level for confined space search and rescue incidents shall implement procedures for the following:

- (1) Recognizing the need for confined space search and rescue
- (2) Initiating contact and establishing communications with victims where possible
- (3)*Recognizing and identifying the hazards associated with nonentry confined space emergencies
- (4)*Recognizing confined spaces
- (5)*Performing a nonentry retrieval
- (6)*Implementing the emergency response system for confined space emergencies
- (7)*Implementing site control and scene management

7.3 Operations Level

7.3.1 Organizations operating at the operations level for confined space search and rescue incidents shall meet the requirements specified in sections 7.2,7.3, and 5.3 (operations level for rope rescue)

7.3.2 The organization operating at this level shall be responsible for the development and training of a confined space rescue team that is trained, equipped, and available to respond to confined space emergencies of a type and complexity that require an operations level organization.

7.3.3 Organizations operating at the operations level shall develop and implement procedures for the following:

- (1)*Sizing up existing and potential conditions at confined space emergencies
- (2)*Protecting personnel from hazards within the confined space

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- (3)*Ensuring that personnel are capable of managing the physical and psychological challenges that affect rescuers entering confined spaces
- (4)* Identifying the duties of the rescue entrant(s) and backup rescue entrant(s), rescue attendant, and rescue team leader as defined herein
- (5)*Monitoring continuously, or at frequent intervals, the atmosphere in all parts of the confined space to be entered for oxygen content, flammability [lower explosive limit/lower flammable limit (LEL/LFL)], and toxicity, in that order
- (6)*Performing entry-type rescues into confined spaces meeting all of following specific qualifying characteristics:
 - (a)* The internal configuration of the space is clear and unobstructed so retrieval systems can be utilized for rescuers without possibility of entanglement.
 - (b)*The victim can be easily seen from the outside of the space's primary access opening.
 - (c)*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.
 - (d)*The space can accommodate two or more rescuers in addition to the victim.
 - (e)*All hazards in and around the confined space have been identified, isolated, and controlled.
- (7)*Using victim packaging devices that could be employed in confined space rescue
- (8)*Selecting, constructing, and using a rope-lowering and -raising system in the high-angle environment

7.4 Technician Level.

7.4.1 Organizations operating at the technician level for confined space search and rescue emergencies shall meet the requirements of this chapter and Section 12.2 (awareness level for machinery search and rescue).

7.4.2 The Organization operating at this level shall be responsible for the development of a confined space rescue team that is trained, equipped, and available to respond to confined space emergencies of a type and complexity that requires a technician level organization.

7.4.3 Organizations operating at the technician level for confined space search and rescue emergencies shall develop and implement procedures for the following:

- (1) Developing hazard isolation and control requirements
- (2)*Ensuring that rescue team members take part in a medical surveillance program
- (3)*Planning response for entry-type confined space rescues in hazardous environments
- (4)*Implementing the planned response

Section VII –Suggested Plan of Instruction

The following is the plan of instruction used during course offerings held at the Florida State Fire College. It also serves as the suggested instructional block format for other approved training providers who use the recommended text book. All class offerings **must** satisfy the JPRs listed in *Section VI – Job Performance Requirements* regardless of textbook used.

| Day/Date | Chapters | Activities |
|----------|--|---|
| Day 1 | Class Introductions and Orientation Confined Space Rescue Overview Permit Confined Space Pre-Plans and Practices Advanced Confined Space Rescues | <ul style="list-style-type: none"> • Introductions • Practical skills • Homework |
| Day 2 | Review of Homework Advanced Confined Space Rescues Continued Final Written Exam Final Practical Exam Course Completion | <ul style="list-style-type: none"> • Final written exam • Final practical exam |

Section VIII – Final Practical and Grading Rubric

Description of Assignment:

The Final Practical Skills Check-off is designed for the student to demonstrate competency of the skills identified through the following JPR's in NFPA 1670 utilizing the state task book for completion.

Format and Grading of Assignment:

Students will be given a practical skills evaluation based on those acquired skills learned under NFPA 1670 JPRs. A Pass/Fail will be applied based on the State task book assignments for the final course grade.

Section IX – Review Date and Author

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|---------------|---------------|
| May 01, 2016 | Unknown |
| July 11, 2019 | Kenneth Kurth |