



Trench Rescue Awareness,
Trench Rescue Operations,
and Rope Rescue Awareness
National Certification

Certification Preparation Guide

Referenced to:

NFPA 1006, Chapters 5 and 12, 2021 Edition

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NFPA 1006, Chapters 5 and 12, 2021 Edition

Kansas Fire & Rescue Training Institute (KFRTI)
Rope Rescue Operations Student Manual, 2023

Ron "Z" Zawlocki and Craig Dashner (JBL)
Trench Rescue: Principals and Practices to NFPA 1006 and 1670
4th edition, 2023

Copies of this document may be downloaded from https://jayhawkglobal.ku.edu/kufire-firefighter-certification#study_guides

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Dear Certification Candidate,

Welcome to the National Firefighter Certification Program!

The Kansas Fire & Rescue Training Institute is accredited by the International Fire Service Accreditation Congress (IFSAC) and by the National Board on Fire Service Professional Qualifications (NBFPSPQ - also known as "Pro Board"). These accreditation agencies establish rules and standards to follow in the administration, recordkeeping, and providing of National Certification for the fire service. Through this accreditation, the Kansas Fire & Rescue Training Institute is authorized to issue accredited National Certifications to individuals meeting the requirements of selected national standards.

Kansas Fire & Rescue Training Institute's role in the process is to maintain testing materials and a fair system of administering certification exams.

This National Certification Preparation Guide is designed to help you prepare for the examination process. This guide gives reading references for the written exam and the skills exam. By using this guide, you will look at the same pages the test writer looked at when they wrote the test questions and developed the skills evaluation sheets.

Our Coordinators and Evaluators are here to observe your skills and knowledge – they will not help you pass the test.

Our staff and evaluators will treat you with respect and professionalism. Our goal is that you complete the testing process with satisfactory performance and earn your National Certification.

Good luck,

KFRTI Staff

National Certification

National Certification is a professional credential that verifies your proficiency in the level to which you were/are certified. Kansas certifications do not expire. If you are moving to another state, you should contact the certification entity in that state to find out if your National Certification from Kansas is recognized.

Certification Program Mission

The mission of the National Certification Program is to maintain an accredited system for Kansas Fire Service members to earn National Fire Service Certification professional credentials.

Certification Program Values and Principles

In the conduct of this program, the Kansas Fire & Rescue Training Institute uses the values listed below to guide our professional conduct; they form the foundations and parameters of this program.

- ✘ We hold in high regard honesty and integrity in ourselves and those we serve.
- ✘ Kindness and professionalism guide our instructors and our evaluators.
- ✘ We respect the fire and emergency services and those who serve in it.
- ✘ Transparency of our system, processes, and policies is paramount.
- ✘ The certification standards drive fair evaluation and testing.
- ✘ We value our role as the provider and protector of the national certification program's credibility.

Academic Integrity

We hold staff (including part-time) and certification candidates to identical ethical standards. We expect professional behavior at all times. Any incident of academic misconduct by a candidate will invalidate their test results, forfeit their certification fee, and may subject them to suspension from the certification process for one year.

Academic misconduct includes cheating, plagiarism, falsification of records, unauthorized possession of examinations, intimidation, and/or other actions that may improperly affect the evaluation of a candidate or assisting others in any such act.

Our policy on academic misconduct is that of "zero tolerance."

The University of Kansas prohibits discrimination. Specifically, the University of Kansas prohibits discrimination based on race, color, ethnicity, religion, sex, national origin, age, ancestry, disability, status as a veteran, sexual orientation, marital status, parental status, gender identity, gender expression, and genetic information in the University's programs and activities. Retaliation is also prohibited by University policy.

How to Use the Certification Preparation Guide

This National Certification Preparation Guide is designed to help you prepare for the examination process. This guide provides reading references for the written exam and the skills exam.

We have included information in this guide to help you achieve the professional Fire Service National Certification credential. There are a few critical elements in preparing for the National Certification Exam. They are: 1) Take some time between the end of your course and the certification exam to focus on studying for the exam. 2) Use this Preparation Guide to help focus on the requirements of the National Standard and your study time.

STEP 1: Review the Administrative information in front of this Preparation Guide.

- ✘ We have included some important information about the program and the steps of certification. Please take a few minutes and review these pages.

STEP 2: Review the Reading Reference Pages

The Reading Reference pages are arranged by Job Performance Requirements (JPRs), which are determined by the correlating NFPA standard.

- ✘ Read and study the pages listed in the written exam reading pages.
- ✘ By reading these pages, you are reading the same pages the test developer was when they were writing test questions.

STEP 3: Review the Skill Evaluation Sheets in this Certification Guide.

- ✘ Take note of the Instructions to the candidate (grey boxes) on each Skill Sheet. These are the instructions that the evaluator will give to you in each station before you test.
- ✘ Skills sheet references refer you to the reference manual to explain the skill. You will be graded only on those items listed on the skill evaluation sheets. Use these in your practice and exam preparations.

STEP 4: Read & Review, Read & Review, Read & Review, and Practice, Practice, Practice!

- ✘ Don't practice until you do it right; practice until you can't do it wrong!

STEP 5: Get a good night's rest before the exam.

- ✘ You can be tired in three ways: Mentally, Physically, and Emotionally. If you are tired in any of these ways, it will make you tired in ALL of them.
- ✘ Save the party for after the exam... get a good night's rest... eat a good breakfast (if you test in the morning)... easy on the sugar and caffeine... and relax!

GOOD LUCK!

Note:

If you are exploring National Certification and haven't taken a course specifically for the level of certification you are seeking, we STRONGLY suggest that you start the process by taking a course. Under certain circumstances, you may challenge some certification exams. Persons who take a course first do much better on the exam. Contact the Kansas Fire & Rescue Training Institute for more information.

National Certification Application & Processes

- Application:** Applications are required before testing. Visit the KFRTI web page (<https://kupce.ku.edu/kufire-firefighter-certification>) to download the application.
- Registration for Exams:** Pre-registration is required. Go to the KFRTI online registration point to register and pay the certification fee. (<https://www.enrole.com/kupce/jsp/index.jsp?categoryId=10019>)
- Certification Fees:** Certification fees must be paid before the exam date. Individuals are required to pay fees online when registering for an exam. An organization may request to be billed; this billing process requires a Purchase Order from that organization stating each candidate's name. To arrange billing, call the KFRTI at 1-866-804-8841. Billing cannot be processed online.
- Number of Attempts:** Candidates are allowed two attempts per test per application, and all testing must be completed within one year of the first testing activity. Additional testing requires a new application and fee.
- Picture I.D. Required:** A government-issued photo I.D. is required at the test site.
- Accommodations:** The Kansas Fire and Rescue Training Institute, as part of the University of Kansas, adheres to the requirements of the Americans with Disabilities Act. Certification candidates requesting accommodations must submit the request in writing two (2) weeks before testing. The request must include a copy of the diagnosis by a qualified professional. Upon receipt of an accommodations request, the Kansas Fire and Rescue Training Institute will review the request and notify the requestor of the proposed accommodations.

What if I Fail the Exam?

Failure of any required component (less than 70% on the written exam, or less than 100% on the skills exam) constitutes a failed attempt.

- a. Candidates may retest on any component of the exam (written or skills exams).
- b. Candidates must register to take a retest at another test site. No walk-in testing is allowed. Call the Institute at (toll-free) 866-804-8841 to register for a retest.
- c. Candidates are allowed two (2) attempts at any portion of the exam. A new application and fee is required if a candidate fails any portion of the exam twice. The new application starts the certification process over, and all portions of testing will have to be retested.
- d. The Institute strongly recommends that candidates study or seek additional training before attempting the exam for a third attempt.

Time to Complete Certification

Candidates have one year from the date of their first testing action to complete their certification. Retaking the written test, retesting skills, submitting verification forms, and all other requirements must be completed within that year. Failure to complete the certification within that year will invalidate all previous testing. The candidate must submit a new application, repay the testing fee, and resubmit all verification forms to retest for the written and skills tests before certification.

Kansas Fire & Rescue Training Institute's Certification Requirements for Trench Rescue Operations

Prerequisites

None. This certification process will test each candidate on Rope Awareness, Trench Awareness, and Trench Operations. Certifications from other entities will be evaluated for reciprocity as per the KFRTI's Reciprocity policy.

Trench Rescue Operations - Certification Exam

Written Exam:

- a. The Trench Rescue Operations Written Exam includes 100 multiple-choice and true/false questions. The written test covers three (3) disciplines: Rope Rescue Awareness (25 questions), Trench Rescue Awareness (25 questions), and Trench Rescue Operations (50 questions).
- b. Candidates are allowed two (2) hours to complete the exam.
- c. Answer sheets and pencils are provided. "Bubble Sheet" answer sheets that candidates fill in small circles to indicate answer (a, b, c, d) as the correct answer are used.
- d. No cell phones, radios, or other electronic devices are allowed in the room while an exam is being administered (an exception for radios that would enable "on-duty" personnel to receive alarms may be granted under special circumstances).
- e. A 70% minimum score is required to pass the written exam in each discipline.

Skills Exam:

- a. The Skills Exam includes individual and team skills. Depending on the skill being tested, candidates may be tested individually or as a member of a team.
- b. Teams of candidates are formed for the purpose of skills testing. Individual candidates may not pre-select or make up crews of their own choosing. The Exam Coordinator appoints teams (for testing purposes) at the test site.
- c. When testing as a team member, evaluation will include both individual performance and performance as a member of the team.
- d. Skills Exams typically include 3 to 4 stations. Each station may consist of multiple skills. All skill exams will include no fewer than eight (8) skills in total.
- e. You will be given up to two attempts at each station. The two attempts per station make up your first overall attempt at the skills exam.
- a. Skills exams require 100% to pass in all stations.
- b. No same-day skills retesting is allowed.

**Trench Rescue Operations - Written Exam
Study/Preparation Information and Materials**

Written Exam: 100 multiple-choice and true/false questions.

- **Rope Rescue Awareness** 25 questions
- **Trench Rescue Awareness** 25 questions
- **Trench Rescue Operations** 50 questions

Time allowed to take exam: Two (2) hours.

Passing Score: 70% (or higher)

Answer sheets and pencils are provided. "Bubble Sheet" answer sheets that candidates fill in small circles to indicate answer (a, b, c, d) as the correct answer are used.

No cell phones, radios, or other electronic devices are allowed in the room while an exam is being administered (an exception for radios that would enable "on-duty" personnel to receive alarms may be granted under special circumstances).

Reading Reference/Text

The Trench Rescue Operations written exam is referenced to two (2) documents. The first document is the supplemental guide the Kansas Fire & Rescue Training Institute (KFRTI) produced.

(KFRTI) - Kansas Fire & Rescue Training Institute Rope Rescue Operations Student Manual, 2023

(JBL) - Ron "Z" Zawlocki and Craig Dashner, Trench Rescue: Principals and Practices to NFPA 1006 and 1670, 4th edition, 2023

The National Standard test is based on

NFPA 1006 Standard for Technical Rescuer Professional Qualifications, 2021 Edition.

**Written Exam Study Pages
(Test questions are taken from these exact pages.)**

Section Subject	Reading/Study Pages
NFPA 1006, JPR Number	

5.1 Rope Rescue Awareness – General Requirements

Assist a team in the operation of the haul line of a rope mechanical advantage system raising operation.

5.1.1 (KFRTI) Pages: 8-9, 35-37, 43-47, 113-116, 137- 141, 157-161

Size up a rope rescue incident.

5.1.2 (KFRTI) Pages: 10, 13-18, 157-161

Recognize incident hazards and initiate isolation procedures.

5.1.3 (KFRTI) Pages: 11-16, 19, 23-34, 43-47, 50-53, 66-69, 107-116

Written Exam Study Pages
(Test questions are taken from these exact pages.)

Section Subject NFPA 1006, JPR Number	Reading/Study Pages
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Recognize the need for technical rescue resources at an operation- or technician-level incident.
5.1.4 (KFRTI) Pages: 13-22, 26-27, 34, 54-55, 157-161

Support an operations- or technician-level incident.
5.1.5 (KFRTI) Pages: 8-9, 20-23, 29-31, 50-53, 54-55, 57-58, 69-71, 104-106, 157-161

12.1 Trench Rescue Awareness – General Requirements

Interview any witness or "competent person."
12.1.1 (JBL) Pages: 4-6, 46-49

Facilitate a non-entry rescue or victim self-rescue.
12.1.2 (JBL) Pages: 9, 22-27, 35-36, 40-41, 57,61

Identify hazardous areas specific to a trench environment.
12.1.3 (JBL) Pages: 10-15, 19-22, 27- 32, 55-56, 70-72

Size up a trench rescue incident.
12.1.4 (JBL) Pages: 4-8, 44-49

Recognize incident hazards and initiate isolation procedures.
12.1.5 (JBL) Pages: 33- 36, 40-41, 45-46, 51-54, 65-69, 70-86

Recognize the need for technical rescue resources at an operations- or technician-level incident.
12.1.6 (JBL) Pages: 4-5, 10-16, 51-52, 62-63

Support an operations- or technician-level incident.
12.1.7 (JBL) Pages: 16, 52-56, 62-63, 65-69

Written Exam Study Pages
(Test questions are taken from these exact pages.)

Section Subject NFPA 1006, JPR Number	Reading/Study Pages
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12.2 Trench Rescue Operations – General Requirements

Identify potential hazards to victims and rescuers in and around a trench excavation.

12.2.1 (JBL) Pages: 95- 107, 113, 132-137

Implement a hazard control plan.

12.2.2 (JBL) Pages: 19-22, 95-107, 113, 132-137, 144-147, 183-184

Develop a shoring plan for a nonintersecting trench no more than 8ft deep.

12.2.3 (JBL) Pages: 95-98, 128-130, 137, 144-154, 156-159, 160-166, 174-178, 183-184

Implement a trench shoring plan for a nonintersecting trench no more than 8 ft deep.

12.2.4 (JBL) Pages: 95-98, 113, 144-147, 183-184

Release a victim from soil entrapment in a nonintersecting trench of 8 ft or less in depth.

12.2.5 (JBL) Pages: 83-86, 91-92, 160-163, 186--204

Remove a victim from a trench.

12.2.6 (JBL) Pages: 186-204

Disassemble support systems at a trench emergency incident.

12.2.7 (JBL) Pages: 33-36, 174-178

Terminate a technical rescue operation.

12.2.8 (JBL) Pages: 95-98, 117- 121, 125-126, 174- 178

***Trench Rescue Operation Skills Exam
Study/Preparation Information and Materials***

Trench Rescue Operations Skills Exam:

The Skills Exam includes individual and team skills. Depending on the skill being tested candidates may be tested individually or as a member of a team.

Teams of 4 to 6 candidates are formed for the purpose of skills testing. Individual candidates may not pre-select or make up crews of their own choosing. The Exam Coordinator appoints teams (for testing purposes) at the test site.

When testing a team member, evaluation includes both individual performance and performance as a member of the team.

Skills Exams typically include 4 to 5 stations. Each station may consist of 1 to 7 skills. All Trench Rescue Skills Exams will include no fewer than six (6) skills in total.

Time allowed to take exam:

The overall skill exam is not timed; however, individual skills and/or stations may include a maximum/minimum time.

Passing Score:

Skills exams require 100% on all stations and skills. Up to two attempts will be given for each skill and/or station being tested. These two attempts make up your first attempt at the skills exam.

No cell phones, radios, or other electronic devices are allowed in the room while an exam is being administered (an exception for radios that would enable "on-duty" personnel to receive alarms may be granted under special circumstances).

Reading Reference/Text

The Trench Rescue Operation skills exam is referenced to:

(KFRTI) - Kansas Fire & Rescue Training Institute Rope Rescue Operations Student Manual, 2023

(JBL) - Ron "Z" Zawlocki and Craig Dashner, Trench Rescue: Principals and Practices to NFPA 1006 and 1670, 4th edition, 2023

The National Standard test is based on:

NFPA 1006 Standard for Technical Rescuer Professional Qualifications, 2021 Edition.

Trench Rescue Operations Skill Evaluation Sheets

These Skills Evaluation Sheets are the exact grading sheets that evaluators use during the Skills Test. These sheets have been edited to use grading skills explicitly and should not be used to learn the skills.

These Skill Evaluation Sheets have been included in this Preparation Guide for the purpose of guiding you as final preparations are made (and practice performed) for the Certification Exam.

Grading for the Skills Evaluation requires performing 100% of the steps listed on these sheets. You will not be evaluated on steps of the skills that are not listed on these evaluation sheets.



Trench Rescue Awareness: Interview any witness or competent person

Item TA1

Reference: NFPA 1006, 2021 Edition, Chapter 12, Job Performance Requirement 12.1.1.

Evaluator Equipment Required: Trench Scenario, Witness or Competent Person, Trench tactical worksheet and checklist

Candidate Equipment Required: Pen or Pencil

Evaluator's Instructions to Candidates

At this station, you will secure and interview any witnesses or the competent person. Using interview techniques, you will identify evidence of victim involvement, the number of victims, and their probable locations. You will determine environmental conditions for potential secondary collapse, complete a victim survivability profile, and recognize the potential for a non-entry rescue or self-rescue.

This process will end once you indicate you are finished, or the maximum 15-minute time limit expires.

To pass this station you must successfully complete all 100% of the steps.

Evaluation Matrix

	1st Attempt		2nd Attempt	
	Pass	Fail	Pass	Fail
1. Secure the competent person or witnesses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Conduct an interview	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Identify number of victims	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Identify probable location of victims	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Determine environmental conditions and potential for secondary collapse	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Determine victim survivability profile (operational mode)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. State potential for a non-entry rescue or self-rescue	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Met allowed time (15-minutes)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Date: _____

Station: Pass Fail

Candidate name: _____

Candidate Signature: _____

Evaluator Name: _____

Evaluator Signature: _____

Notes (Please include comments/explanation for failure):



Trench Rescue Awareness: Facilitate a nonentry rescue or victim self-rescue and Identify hazardous areas

Item TA2

Reference: NFPA 1006, 2021 Edition, Chapter 12, Job Performance Requirement 12.1.2, 12.1.3.

Evaluator Equipment Required: Trench Scenario, Ladders, Entrenching Shovel, Groundpads, Atmospheric monitor, Ventilation fan, Rope rescue equipment, Helmet, Harness, Spec Pak, and Litter.

Candidate Equipment Required: Personal Protective Equipment (Helmet and Gloves)

Evaluator's Instructions to Candidates

At this station, you will identify hazardous areas and facilitate a nonentry or victim self-rescue. You will identify and communicate all high hazards areas in the rescue and general area. The scene shall be secured, hazards managed, and an approach path to the trench identified, prior to initiating nonentry rescue or victim self-rescue tactics.

This process will end once you indicate you are finished, or the maximum 15-minute time limit expires. To pass this station you must successfully complete all 100% of the steps.

Evaluation Matrix

	1st Attempt		2nd Attempt	
	Pass	Fail	Pass	Fail
1. Ability to identify areas of high risk for additional collapse,	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Communicate high-risk areas to other responders	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Select and deploy tools or materials for bridging or weight distribution	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Implements methods to reduce imposed loads at or near the lip of the trench	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Selects and Deploys tools used to facilitate nonentry and self-rescue	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Implement nonentry rescue and self-rescue tactics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Met allowed time (15-minutes)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Date: _____

Station: Pass Fail

Candidate name: _____

Candidate Signature: _____

Evaluator Name: _____

Evaluator Signature: _____

Notes (Please include comments/explanation for failure):



Trench Rescue Awareness: Perform a Size up and Initial Assessment of a Trench Rescue Incident

Item TA3

Reference: NFPA 1006, 2021 Edition, Chapter 12, Job Performance Requirement 12.1.4, 12.1.5, 12.1.6

Evaluator Equipment Required: Scenario, Simulated victim(s), Tactical Worksheets and checklist, Witness or Reporting party, Technical Reference Materials (i.e., Field guides, ERGs, NIOSH Chem Guide),

Candidate Equipment Required: Personal Protective Equipment (Helmet), Pen and Paper

Evaluator's Instructions to Candidates

At this station, you will perform a size-up and initial assessment of a trench rescue incident. You will determine the scope of the rescue and initiate an incident management system. You shall select and use technical reference materials and planning forms. You will identify the number of victims and their last reported location through observations, interviewing witnesses, and reporting parties. The primary search area shall be determined and secured. Hazards will be assessed, and isolation methods considered and implemented to minimize risks to rescuers, bystanders, and victims. Finally, you shall determine resource needs to fit the operational requirements and consider time constraints. You have a 20 minutes maximum time limit to complete your size-up and scene assessment, then relay the information via a command transfer.

To pass this station, you must successfully complete all 100% of the steps.

Evaluation Matrix

	1st Attempt		2nd Attempt	
	Pass	Fail	Pass	Fail
1. Operates within SOG/ SOP requirements for a trench rescue incident	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Establish Incident Command and Incident Management System	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Identify type and nature of incident	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Select and use technical rescue reference materials and planning forms	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Identify and interview on-scene sources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. State scene boundaries and search criteria	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Assess potential hazards to rescuers and bystanders	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Determine safety measures and methods to isolate hazards	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Assess resource availability, capabilities, and limitations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Perform a risk/benefit analysis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Determine the need and Initiate request for additional resources and equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Implement isolation methods and control equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Relay size-up information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Met allowed time (20 minutes)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Date: _____

Station: Pass Fail

Candidate name: _____

Candidate Signature: _____

Evaluator Name: _____

Evaluator Signature: _____

Notes (Please include comments/explanation for failure):



Trench Rescue Awareness: Support an operations or technician level incident

Item TA4

Reference: NFPA 1006, 2021 Edition, Chapter 12, Job Performance Requirement 12.1.7.

Evaluator Equipment Required: Trench Scenario, Ladders, Shovel, Groundpads, Atmospheric monitor, Ventilation fan, Rope rescue equipment, Helmet, Harness, Spec Pak, and Litter

Candidate Equipment Required: Personal Protective Equipment (Helmet and Gloves)

Evaluator's Instructions to Candidates

At this station, under the supervision of a (panel/strut/entry) team officer, you will work as a team member to support an operations-level trench operation. You shall perform your assignment per the incident action plan following standard operation protocols. In addition, you shall select and wear the appropriate PPE and execute operational commands as directed while remaining outside of non-secured hazardous areas.

This process will end once you indicate you are finished or the maximum 15-minute time limit expires.

To pass this station, you must successfully complete all 100% of the steps.

Evaluation Matrix

	1st Attempt		2nd Attempt	
	Pass	Fail	Pass	Fail
1. Select and use required PPE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Identify safety concerns and potential hazards	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Apply SOGs/SOPs to a trench rescue incident	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Work within incident management system requirements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Operate and implement an incident action plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Select and use required resources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Report task progress to supervisor or IC	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Met allowed time (15-minutes)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Date: _____

Station: Pass Fail

Candidate name: _____

Candidate Signature: _____

Evaluator Name: _____

Evaluator Signature: _____

Notes (Please include comments/explanation for failure):



Trench Rescue Operations: Identify potential hazards to victims and rescuers in and around a trench excavation

Item TO1

Reference: NFPA 1006, 2021 Edition, Chapter 5, Job Performance Requirement 12.2.1.

Evaluator Equipment Required: Trench Scenario, Multi-gas monitor, Trench tactical worksheet and checklist

Candidate Equipment Required: Personal Protective Equipment (Helmet and Gloves), Pen or Pencil

Evaluator's Instructions to Candidates

At this station, you will identify potential hazards of a trench incident. You will identify areas of potential collapse, identify utility line locations and types, evaluate the spoil pile and additional surcharge loads, and monitor for environmental hazards to include atmospheric hazards and water sources.

This process will end once you indicate you are finished or the maximum 10-minute time limit expires.

To pass this station, you must successfully complete 100% of the steps.

Evaluation Matrix

	1st Attempt		2nd Attempt	
	Pass	Fail	Pass	Fail
1. Interpret tabulated data information and tables	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Identify additional collapse potential	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Perform atmospheric monitoring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Monitor spoil piles	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Assess and address the effects of water on trench stability	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Identify utility line locations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Met allowed time (10-minutes)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Date: _____

Station: Pass Fail

Candidate name: _____

Candidate Signature: _____

Evaluator Name: _____

Evaluator Signature: _____

Notes (Please include comments/explanation for failure):



Trench Rescue Operations: Implement a hazard control plan

Item TO2

Reference: NFPA 1006, 2021 Edition, Chapter 5, Job Performance Requirement 12.2.2.

Evaluator Equipment Required: Trench Scenario, KFRTI trench rescue cache, Trench tactical worksheet and checklist

Candidate Equipment Required: Personal Protective Equipment (Helmet and Gloves), Pen or Pencil

Evaluator's Instructions to Candidates

At this station, you will implement a hazard control plan. You will establish safety control zones; provisions for ventilation, dewatering, energy control, air monitoring, and falls; and implement a strategy to prevent unplanned soil movement.

This process will end once you indicate you are finished or the maximum 20-minute time limit expires.

To pass this station, you must successfully complete 100% of the steps.

Evaluation Matrix

	1st Attempt		2nd Attempt	
	Pass	Fail	Pass	Fail
1. Implement hazard control plan to protect personnel inside and outside of trench,	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Establish safe zones	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Perform atmospheric monitoring and initiate ventilation as needed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Initiate dewatering	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Provide energy control	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Ability to select and use PPE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Apply fall prevention	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Implement strategies to minimize unplanned soil movement.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Met allowed time (15 minutes)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Date: _____

Station: Pass Fail

Candidate name: _____

Candidate Signature: _____

Evaluator Name: _____

Evaluator Signature: _____

Notes (Please include comments/explanation for failure):



Trench Rescue Operations: Develop a shoring plan for a nonintersecting trench no more than 8 feet deep

Item TO3

Reference: NFPA 1006, 2021 Edition, Chapter 5, Job Performance Requirement 12.2.3.

Evaluator Equipment Required: Trench Scenario, KFRTI trench rescue cache, Trench tactical worksheet and checklist

Candidate Equipment Required: Personal Protective Equipment (Helmet and Gloves), Pen or Pencil

Evaluator's Instructions to Candidates

At this station, you will develop a shoring plan for a nonintersecting trench, no more than 8ft deep, that identifies and prepares to mitigate potential collapse and entrapment hazards. You will provide a pre-briefing to the rescue team that will identify and establish safe zones both inside and outside of the trench, a strut preparation staging area, shoring strategies, and the victim release and removal plan.

This process will end once you indicate you are finished or the maximum 10-minute time limit expires.

To pass this station, you must successfully complete 100% of the steps.

Evaluated Skill Items

	1st Attempt		2nd Attempt	
	Pass	Fail	Pass	Fail
1. Determine shoring strategy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Designate strut preparations staging location (cut-station)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Determine material and equipment needs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Establish safe zones	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Team Prebriefing				
a. shoring strategies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. victim release plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. projected path for removal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Meets allowed time (10 minutes)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Date: _____

Station: Pass Fail

Candidate name: _____

Candidate Signature: _____

Evaluator Name: _____

Evaluator Signature: _____

Notes (Please include comments/explanation for failure):



Trench Rescue Operations: Implement a trench shoring plan for a nonintersecting trench no more than 8 ft deep

Item TO4

Reference: NFPA 1006, 2021 Edition, Chapter 5, Job Performance Requirement 12.2.4.

Evaluator Equipment Required: Trench Scenario, KFRTI trench rescue cache, Trench tactical worksheet and checklist

Candidate Equipment Required: Personal Protective Equipment (Helmet, Gloves, Safety Boots, safety glasses, and hearing protection)

Evaluator's Instructions to Candidates

At this station, as a member of a team, you will implement a trench shoring plan for a nonintersecting trench no more than 8 ft deep, based on the incident pre-briefing and protocols, so that the victim is protected from additional collapse, the trench walls are supported, prior areas of collapse are addressed, shoring team members work from protected areas, and shoring systems are installed so they perform their intended function.

This process will end once you indicate you are finished, or the maximum 60 minute time limit expires.

To pass this station you must successfully complete all 100% of the steps.

Evaluated Skill Items

	1st Attempt		2nd Attempt	
	Pass	Fail	Pass	Fail
1. Demonstrates the ability to place shoring and shielding systems,	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Install shoring (primary, secondary, complete)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Use protocols,	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Choose methods to stabilize,	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Establish a strut preparations staging location (cut-station)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Use personal protective equipment,	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Anticipate extrication logistics,	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Construct shoring system in a trench less than 8 ft deep.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Met allowed time (60 minutes)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Date: _____

Station: Pass Fail

Candidate name: _____

Candidate Signature: _____

Evaluator Name: _____

Evaluator Signature: _____

Notes (Please include comments/explanation for failure):



Trench Rescue Operations: Release a victim from soil entrapment in a nonintersecting trench of 8 ft or less in depth

Item T05

Reference: NFPA 1006, 2021 Edition, Chapter 5, Job Performance Requirement 12.2.5.

Evaluator Equipment Required: Trench Scenario, KFRTI trench rescue cache, Trench tactical worksheet and checklist

Candidate Equipment Required: Personal Protective Equipment (Helmet, Gloves, Safety Boots, safety glasses, and hearing protection)

Evaluator's Instructions to Candidates

At this station, you will release a victim from soil entrapment in a nonintersecting trench no more than 8 feet deep. Hazards to rescue personnel and victims shall be minimized. The techniques used should take the victim's injuries into consideration, identify potential crush injuries, compartment syndrome, and enhance survivability. All techniques and actions must not compromise the integrity of the existing trench shoring system.

This process will end once you indicate you are finished or the maximum 15-minute time limit expires.

To pass this station, you must successfully complete 100% of the steps.

Evaluated Skill Items

	1st Attempt		2nd Attempt	
	Pass	Fail	Pass	Fail
1. Select, use, and care for PPE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Operate rescue tools and stabilization systems;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Identify crush injuries related to compartment syndrome;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. and complete risk/benefit assessments for selected methods of rescue and time constraints.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Met allowed time (10 minutes)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Date: _____

Station: Pass Fail

Candidate name: _____

Candidate Signature: _____

Evaluator Name: _____

Evaluator Signature: _____

Notes (Please include comments/explanation for failure):



Reference: NFPA 1006, 2021 Edition, Chapter 5, Job Performance Requirement 12.2.6.

Evaluator Equipment Required: Trench Scenario, KFRTI trench rescue cache, Trench tactical worksheet and checklist

Candidate Equipment Required: Personal Protective Equipment (Helmet, Gloves, Safety Boots, safety glasses, and hearing protection)

Evaluator's Instructions to Candidates

At this station, you will remove a victim from a trench, so that basic life functions are supported as required; the victim is evaluated for signs of compartment syndrome; methods and packaging devices selected are compatible with intended routes of transfer; universal precautions are employed to protect personnel from blood-borne pathogens; and extraction times meet time constraints for medical management.

This process will end once you indicate you are finished or the maximum 10-minute time limit expires.

To pass this station, you must successfully complete 100% of the steps.

Evaluated Skill Items

	1st Attempt		2nd Attempt	
	Pass	Fail	Pass	Fail
1. Ability to select and use personal protective equipment,	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Provide basic medical care and immobilization techniques,	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Identify the need for advanced life support and compartment syndrome management,	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Use a removal system that matches logistical and medical management time frame concerns.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Met allowed time (10 minutes)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Date: _____

Station: Pass Fail

Candidate name: _____

Candidate Signature: _____

Evaluator Name: _____

Evaluator Signature: _____

Notes (Please include comments/explanation for failure):



Trench Rescue Operations: Disassemble support systems at a trench emergency incident Item T07

Reference: NFPA 1006, 2021 Edition, Chapter 5, Job Performance Requirement 12.2.7.

Evaluator Equipment Required: Trench Scenario, KFRTI trench rescue cache, Trench tactical worksheet and checklist

Candidate Equipment Required: Personal Protective Equipment (Helmet, Gloves, Safety Boots, safety glasses, and hearing protection)

Evaluator's Instructions to Candidates

At this station, you will disassemble support systems at a trench emergency incident, while ensuring soil movement is minimized, all rescue equipment is removed from the trench, sheeting and shoring are removed in the reverse order of their placement, emergency protocols and safe zones in the trench are adhered to, rescue personnel are removed from the trench, the last supporting shores are pulled free with ropes, equipment is cleaned and serviced, reports are completed, and a post-briefing is performed.

This process will end once you indicate you are finished or the maximum 10-minute time limit expires.
To pass this station, you must successfully complete 100% of the steps.

Evaluated Skill Items

	1st Attempt		2nd Attempt	
	Pass	Fail	Pass	Fail
1. Ability to use personal protective equipment,	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Remove equipment and protective systems,	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Use trench safety protocols,	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Clean and service equipment,	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Perform an incident debriefing.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Met allowed time (10 minutes)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Date: _____

Station: Pass Fail

Candidate name: _____

Candidate Signature: _____

Evaluator Name: _____

Evaluator Signature: _____

Notes (Please include comments/explanation for failure):



Trench Rescue Operations: Terminate a technical rescue operation

Item T08

Reference: NFPA 1006, 2021 Edition, Chapter 5, Job Performance Requirement 12.2.8.

Evaluator Equipment Required: Trench Scenario, KFRTI trench rescue cache, Trench tactical worksheet and checklist

Candidate Equipment Required: Personal Protective Equipment (Helmet and Gloves), Pen or Pencil

Evaluator's Instructions to Candidates

At this station, acting as the rescue officer, you will terminate a technical rescue incident and transfer control of the scene to the responsible party (evaluator). Utilizing a final hazard analysis and risk assessment, you will inform the responsible party of the remaining hazards, and scene security measures managed. You will ensure that personnel and equipment are assessed and accounted for and returned to a state of readiness. You will conduct a post event analysis and complete appropriate documentation to conclude the incident.

This process will end once you indicate you are finished, or the maximum 20-minute time limit expires.

To pass this station you must successfully complete all 100% of the steps.

Evaluated Skill Items

	1st Attempt		2nd Attempt	
	Pass	Fail	Pass	Fail
1. Utilizes incident command functions and resources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Utilizes a hazards analysis and risk assessment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Recognize and implement site control equipment and methods	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Inform responsible party	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a. remaining hazards				
b. implemented scene security measures				
5. Incident resource management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a. accountability of personnel				
b. accountability of equipment				
6. Conducts a post event analysis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Complete documentation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Meet allowed time (20-minutes)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Date: _____

Station: Pass Fail

Candidate name: _____

Candidate Signature: _____

Evaluator Name: _____

Evaluator Signature: _____

Notes (Please include comments/explanation for failure):