

**Rescue Technician Professional Qualifications**  
**Chapter 8 Trench Rescue - NFPA 1006 2013 Edition**



**Level I**

A	Site Operations – SCENE SIZE-UP and INCIDENT ACTION PLAN	Mandatory Station
B	Support Operations - AIR MONITORING AND VENTILATION	Random Station
C	Support Operations - GENERAL SITE SAFETY	Random Station
D	Support Operations - CUT STATION SET-UP	Random Station
E	Support Operations - SUPPORT NON-INTERSECTING TRENCH	Mandatory Station
F	Site Operations - DISENTANGLEMENT & REMOVAL	Mandatory Station
G	Site Operations - TERMINATION	Mandatory Station

**Level II**

H	Site Operations - SUPPORT INTERSECTING TRENCH	Mandatory Station
I	Site Operations - SUPPLEMENTAL SHEETING/SHORING	Mandatory Station
J	Site Operations - HEAVY LIFT OPERATIONS	Random Station
K	Site Operations - HEAVY EQUIPMENT COORDINATION	Random Station

**TESTING REQUIREMENTS**

**If testing both levels together all mandatory and 3 random must be tested. If testing individual levels follow list below.**

**Level I - Must test 6 skill stations**

MANDATORY – Stations A, E, F, G

RANDOM – Stations B, C or D

**Level II – Must test 3 skill stations**

MANDATORY – Stations H, I,

RANDOM – Stations J or K

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<b>STATION A— Site Operations SCENE SIZE-UP and INCIDENT ACTION PLAN</b>	Test Date	Candidate #
Reference: NFPA 1006 - (2013 Edition) Chapter 8 Level 1 Mandatory Station JPR 8.1.1, 8.1.2	Test Site	

**Directions:** Given a simulated trench rescue incident with a victim the candidate will conduct a size-up so that existing and potential conditions are evaluated within the trench and the rescue area, a witness or “competent person” is secured; the probability of victim existence, number, condition, and location is determined; potential for rapid non-entry rescues or victim self rescue is recognized, needed personnel, supply, and equipment resources are evaluated; and utility involvement and location is determined.

**Performance Outcome:** Pass/ Fail will be determined by 16 of the 16 items being performed correctly

No.	Task Steps	Initial Test		Retest	
		Yes	No	Yes	No
1.	Establishes and utilizes an Incident Management System				
2.	Ensures proper use of Personal Protective Equipment (PPE).				
3.	Utilizes a personnel accountability system				
4.	Completes size-up using observations, victims, bystanders and/or site information				
5.	Identifies and safely controls all present and potential hazards				
6.	Identifies any involved utilities.				
7.	Determines basic soil classification				
8.	Establishes safe operating zones				
9.	Identifies collapse pattern				
10.	Identifies stabilization issues and resources needed				
11.	Determines all potential victim locations				
12.	Evaluates rescue vs. recovery considerations				
13.	Provides for non-entry and/or self rescue of victim				
14.	Determines trench dimensions				
15.	Formulates an initial Incident Action Plan and completes a tactical work sheet (ICS Form 201 or equivalent).				
16.	Were all tasks completed in a SAFE manner? (“NO” indicates automatic failure				

<b>PASS</b> _____	<b>PASS</b> _____
<b>FAIL</b> _____	<b>FAIL</b> _____

Evaluator Comments: \_\_\_\_\_

Evaluator Signature: \_\_\_\_\_ Evaluator # \_\_\_\_\_

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<b>STATION B – Support Operations</b> <b>AIR MONITORING AND VENTILATION</b>  Reference: NFPA 1006 - (2013Edition) Chapter 8 Level I Mandatory Station JPR 8.1.3	Test Date	Candidate #
	Test Site	

**Directions:** Given a simulated trench rescue incident and properly placed ground pads the candidate will be able to implement atmospheric monitoring and ventilation in support of the trench rescue operation.

**Performance Outcome:** Pass/ Fail will be determined by 11 of the 11 items being preformed correctly

No.	Task Steps	Initial Test		Retest	
		Yes	No	Yes	No
1.	Ensures proper/continued use of Personal Protective Equipment (PPE).				
2.	Selects appropriate air monitoring equipment				
3.	Checks and assures proper operation of selected equipment				
4.	Provides a fresh air set-up or zeroes monitor per the manufacturer's recommendations				
5.	Monitors general area of the trench starting on the upwind side				
6.	Monitors atmosphere in trench at appropriate levels				
7.	Selects appropriate ventilation equipment.				
8.	Assures proper operation of ventilation equipment.				
9.	Properly establishes positive pressure ventilation of trench				
10.	Continues to monitor atmosphere in trench and record findings.				
11.	Were all tasks completed in a SAFE manner? ("NO" indicates automatic failure				

<b>PASS</b> _____	<b>PASS</b> _____
<b>FAIL</b> _____	<b>FAIL</b> _____

Evaluator Comments: \_\_\_\_\_

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<b>STATION C – Site Operations</b> <b>GENERAL SITE SAFETY</b>	Test Date	Candidate #
Reference: NFPA 1006 - (20013 Edition) Chapter 8 Level I Mandatory Station JPR 8.1.3, 8.1.4	Test Site	

**Directions:** Given a simulated trench rescue emergency and size-up information the candidate will demonstrate his/her ability to place ground pads around the lip of the trench and make the general area safe in order to conduct further rescue operations

**Performance Outcome:** Pass/ Fail will be determined by 8 of the 8 items being preformed correctly

No.	Task Steps	Initial Test		Retest	
		Yes	No	Yes	No
1.	Ensures proper/continued use of Personal Protective Equipment (PPE).				
2.	Selects appropriate size and type of material for use as grounds pads				
3.	Approaches the trench from the end				
4.	Properly places ground pads around the lip of the trench				
5.	Assures that all ground pads are level and contiguous				
6.	Notes any areas of concern around the trench lip				
7.	Operates from a location of safety and distributes weight over ground pads while conducting operations				
8.	Were all tasks completed in a SAFE manner? (“NO” indicates automatic failure				

<b>PASS</b> _____	<b>PASS</b> _____
<b>FAIL</b> _____	<b>FAIL</b> _____

Evaluator Comments: \_\_\_\_\_

Evaluator Signature: \_\_\_\_\_ Evaluator # \_\_\_\_\_

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<b>STATION D – Support Operations CUT STATION SET-UP</b>	Test Date	Candidate #
Reference: NFPA 1006 - (2013 Edition) Chapter 8 Level I Mandatory Station JPR 8.1.3	Test Site	

**Directions:** Given a basic equipment cache the candidate will demonstrate his/her ability to establish a cut station in support of a trench rescue operation

**Performance Outcome:** Pass/ Fail will be determined by 5 of the 5 items being performed correctly

No.	Task Steps	Initial Test		Retest	
		Yes	No	Yes	No
1.	Ensures proper/continued use of Personal Protective Equipment (PPE).				
2.	Selects appropriate location for cut station given the rescue site				
3.	Selects appropriate tools and equipment from cache for cut station. At a minimum the candidate should select the following items: <ul style="list-style-type: none"> <li>- Chain saw _____</li> <li>- Circular saw _____</li> <li>- Tape measure/measuring device _____</li> <li>- Speed and/or framing square _____</li> <li>- Carpenter’s pencils or lumber crayons _____</li> <li>- Appropriate PPE _____</li> <li>- Various extension cords _____</li> <li>- Generator or other power source _____</li> </ul>				
4.	Assures all equipment selected operates and is in a serviceable condition				
5.	Were all tasks completed in a SAFE manner? (“NO” indicates automatic failure)				

<b>PASS</b> _____	<b>PASS</b> _____
<b>FAIL</b> _____	<b>FAIL</b> _____

Evaluator Comments: \_\_\_\_\_

Evaluator Signature: \_\_\_\_\_ Evaluator # \_\_\_\_\_

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<b>STATION E– Site Operations SUPPORT NON-INTERSECTING TRENCH</b>	Test Date	Candidate #
Reference: NFPA 1006 - (2013 Edition) Chapter 8 Level I Mandatory Station JPR 8.1.4	Test Site	

**Directions:** : Functioning as a member of a team given a simulated trench rescue incident the candidate(s) will design and construct a support/shoring system in order to access and extricate an entrapped victim in a straight/non-intersecting trench.

**Performance Outcome:** Pass/ Fail will be determined by 15 of the 15 items being performed correctly

No.	Task Steps	Initial Test		Retest	
		Yes	No	Yes	No
1.	Ensures proper/continued use of Personal Protective Equipment (PPE).				
2.	Confirms size-up information presented (hazards, type of collapse, trench dimensions, soil type/classification).				
3.	Assures placement of ground pads around trench lip				
4.	Assures ventilation and atmospheric monitoring in place				
5.	Ladder placed in trench and secured for access				
6.	References and interprets tabulated data for type of system being constructed				
7.	Designs/constructs a safe and appropriate system for given situation that is capable of supporting anticipated load				
8.	Team briefing performed prior to shoring operations				
9.	Sheeting and uprights (or trench box) placed appropriately				
10.	Shoring placed in proper order given situation				
11.	Shores secured in place (toe nailed, scabbed).				
12.	Shoring checked periodically for stability.				
13.	Completed system capable of adequately supporting anticipated load				
14.	Operations conducted from within safe zones while in trench				
15.	Were all tasks completed in a SAFE manner? (“NO” indicates automatic failure				

<b>PASS</b> _____	<b>PASS</b> _____
<b>FAIL</b> _____	<b>FAIL</b> _____

Evaluator Comments: \_\_\_\_\_

Evaluator Signature: \_\_\_\_\_ Evaluator # \_\_\_\_\_

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<b>STATION F – Site Operations DISENTANGLEMENT AND REMOVAL</b>	Test Date	Candidate #
Reference: NFPA 1006 - (2013 Edition) Chapter 8 Level I & II Mandatory Station JPR 8.1.5, 8.1.6, 8.2.6	Test Site	

**Directions:** Functioning as a member of a team given a simulated trench rescue incident with a victim the candidate(s) will access the victim, provide for disentanglement, properly package the victim, and remove the victim from the trench

**Performance Outcome:** Pass/ Fail will be determined by 14 of the 14 items being performed correctly

No.	Task Steps	Initial Test		Retest	
		Yes	No	Yes	No
1.	Ensures proper/continued use of Personal Protective Equipment (PPE).				
2.	Accesses victim and assesses degree of entrapment				
3.	Provides patient protection (head & eye protection, shielding, etc).				
4.	Provides for appropriate medical evaluation and intervention by qualified personnel prior to releasing victim from entrapment				
5.	Possibility of “crush syndrome” recognized.				
6.	Excavates dirt from around patient utilizing approved equipment and methods so as to not cause any additional injury to patient				
7.	Removes any entrapping mechanism that may be in place				
8.	Assures complete disentanglement of patient prior to attempting to remove patient from trench				
9.	Selects appropriate patient packaging and removal equipment given situation				
10.	Appropriately applies selected packaging equipment to patient				
11.	Prepares patient for removal from trench				
12.	Patient removed from trench in a safe and efficient manner				
13.	Systems and devices selected appropriate for conditions				
14.	Were all tasks completed in a SAFE manner? (“NO” indicates automatic failure				

<b>PASS</b> _____	<b>PASS</b> _____
<b>FAIL</b> _____	<b>FAIL</b> _____

Evaluator Comments: \_\_\_\_\_

Evaluator Signature: \_\_\_\_\_ Evaluator # \_\_\_\_\_

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<b>STATION G – Site Operation TERMINATION</b>	Test Date	Candidate #
Reference: NFPA 1006 - (2013 Edition) Chapter 8 Level I Mandatory Station JPR 8.1.7	Test Site	

**Directions:** Functioning as a member of a team given a simulated trench rescue incident with a victim that has already been extricated from the trench, the candidate(s) will terminate the incident providing for recovery of equipment and personnel.

**Performance Outcome:** Pass/ Fail will be determined by 12 of the 12 items being performed correctly

No.	Task Steps	Initial Test		Retest	
		Yes	No	Yes	No
1.	Ensures proper/continued use of Personal Protective Equipment (PPE).				
2.	Assures ongoing atmospheric monitoring and ventilation				
3.	Evaluates installed system components for integrity				
4.	Conducts briefing of personnel prior to starting equipment recovery				
5.	Removes installed components of shoring/sheeting system in reverse order from which they were installed				
6.	Conducts operations within trench while remaining in safe zone at all times				
7.	Ground pads, ventilation and air monitoring equipment recovered				
8.	Trench and site secured				
9.	Equipment cleaned and returned to state of readiness				
10.	Post incident analysis conducted				
11.	Need for Critical Incident Stress Debriefing assessed				
12.	Were all tasks completed in a SAFE manner? (“NO” indicates automatic failure				

<b>PASS</b> _____	<b>PASS</b> _____
<b>FAIL</b> _____	<b>FAIL</b> _____

Evaluator Comments: \_\_\_\_\_

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<b>STATION H – Site Operations</b> <b>SUPPORT INTERSECTING TRENCH</b>	Test Date	Candidate #
Reference: NFPA 1006 - (2013 Edition) Chapter 8 Level II Mandatory Station JPR 8.2.1, 8.2.2, 8.2.3	Test Site	

**Directions:** Functioning as a member of a team given a simulated trench rescue incident the candidate(s) will design and construct a support/shoring system in order to access and extricate an entrapped victim in an intersecting trench.

**Performance Outcome:** Pass/ Fail will be determined by 15 of the 15 items being performed correctly

No.	Task Steps	Initial Test		Retest	
		Yes	No	Yes	No
1.	Ensures proper/continued use of Personal Protective Equipment (PPE).				
2.	Confirms size-up information presented (hazards, type of collapse, trench dimensions, soil type/classification).				
3.	Assures placement of ground pads around trench lip				
4.	Assures ventilation and atmospheric monitoring in place				
5.	Ladder placed in trench and secured for access				
6.	References and interprets tabulated data for type of system being constructed				
7.	Designs/constructs a safe and appropriate system for given situation				
8.	Team briefing performed prior to shoring operations				
9.	Sheeting and uprights (or trench box) placed appropriately				
10.	Shoring placed in proper order given situation				
11.	Shores secured in place (toe nailed, scabbed).				
12.	Shoring checked periodically for stability				
13.	Completed system capable of adequately supporting anticipated load				
14.	Operations conducted from within safe zones/areas while in trench				
15.	Were all tasks completed in a SAFE manner? (“NO” indicates automatic failure				

<b>PASS</b> _____	<b>PASS</b> _____
<b>FAIL</b> _____	<b>FAIL</b> _____

Evaluator Comments: \_\_\_\_\_

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<b>STATION I – Site Operations SUPPLEMENTAL SHEETING/SHORING</b>	Test Date	Candidate #
Reference NFPA 1006 - (2013 Edition) Chapter 8 Level II Mandatory Station JPR 8.2.2, 8.2.3	Test Site	

**Directions:** Functioning as a member of a team given a simulated trench rescue incident the candidate(s) will install supplemental sheeting and shoring when excavating below the level of protection initially placed in the trench

**Performance Outcome:** Pass/ Fail will be determined by 8 of the 8 items being performed correctly

No.	Task Steps	Initial Test		Retest	
		Yes	No	Yes	No
1.	Ensures proper/continued use of Personal Protective Equipment (PPE).				
2.	Evaluates need for supplemental sheeting and shoring				
3.	References and appropriately interprets tabulated data for installation of supplemental sheeting and shoring given situation				
4.	Assures that no excavation is made >2 feet below approved shoring and sheeting already installed without providing supplemental sheeting/shoring				
5.	Installs supplemental sheeting and shoring utilizing approved devices, techniques and supplies				
6.	Evaluates installed sheeting/shoring for integrity				
7.	Completed system capable of adequately supporting anticipated load.				
8.	Were all tasks completed in a SAFE manner? (“NO” indicates automatic failure				

<b>PASS</b> _____	<b>PASS</b> _____
<b>FAIL</b> _____	<b>FAIL</b> _____

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<b>STATION J – Site Operations HEAVY LIFT OPERATIONS</b>	Test Date	Candidate #
Reference NFPA 1006 - (2013 Edition) Chapter 8 Level II Mandatory Station JPR 8.2.4	Test Site	

**Directions:** Functioning as a member of a team and given a simulated trench rescue situation the candidate(s) will coordinate the lifting of a heavy load/object off of a patient in order to facilitate patient disentanglement and extrication.

**Performance Outcome:** Pass/ Fail will be determined by 11 of the 11 items being preformed correctly

No.	Task Steps	Initial Test		Retest	
		Yes	No	Yes	No
1.	Ensures proper/continued use of Personal Protective Equipment				
2.	Selects appropriate tools and equipment for presenting situation				
3.	Performs load calculation and estimates weight of object to be lifted				
4.	Determines appropriate techniques/devices based on weight and configuration of object				
5.	Assures object is adequately stabilized prior to beginning lifting operations				
6.	Appropriately rigs object to be lifted (if applicable).				
7.	Lifts object distance needed to extricate patient				
8.	Appropriate application of principles of mechanical advantage and leverage				
9.	Lift and stabilization/cribbing coordinated so that load does not fall greater than 1 inch should lifting procedure inadvertently fail				
10.	Lift is coordinated and object can be secured in place				
11.	Were all tasks completed in a SAFE manner? (“NO” indicates automatic failure				

<b>PASS</b> _____	<b>PASS</b> _____
<b>FAIL</b> _____	<b>FAIL</b> _____

Evaluator Comments: \_\_\_\_\_

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<b>STATION K – Site Operations HEAVY EQUIPMENT COORDINATION</b>	Test Date	Candidate #
Reference NFPA 1006 - (2013 Edition) Chapter 8 Level II Mandatory Station JPR 8.2.5	Test Site	

**Directions:** Given a simulated trench rescue situation the candidate will coordinate the use of heavy equipment (vacuum truck, excavation equipment, crane, etc.) in and around the trench rescue site.

**Performance Outcome:** Pass/ Fail will be determined by 5 of the 5 items being preformed correctly

No.	Task Steps	Initial Test		Retest	
		Yes	No	Yes	No
1.	Ensures proper/continued use of Personal Protective Equipment (PPE).				
2.	Confirms trench is adequately secured prior to having heavy equipment operate in/around immediate area of trench				
3.	Coordinates movement of heavy equipment in hot zone with other rescue related activities				
4.	Utilizes proper hand signals and/or voice communication during operation				
5.	Were all tasks completed in a SAFE manner? (“NO” indicates automatic failure				

<b>PASS</b> _____	<b>PASS</b> _____
<b>FAIL</b> _____	<b>FAIL</b> _____

Evaluator Comments: \_\_\_\_\_

\_\_\_\_\_

Evaluator Signature: \_\_\_\_\_ Evaluator # \_\_\_\_\_

Re-Test Evaluator Signature: \_\_\_\_\_ Evaluator # \_\_\_\_\_