



# PENNSYLVANIA STATE FIRE ACADEMY

## ROPE RESCUE OPERATIONS SKILL STATIONS

### NFPA 1006 (2021 Edition) Chapter 5

**\*\*Attention:** All certification candidates are required to have an established and up to date user portal account in the PA State Fire Academy's Acadis Learning Management System prior to participating in **ANY** certification testing opportunity. Please log in to your Acadis portal account and update all personal information before submitting your certification application. (Access can be gained through the OSFC website – [Training and Certification Portal](#)).

### **Skill Stations**

#### NFPA 1006 Rope Operations – Chapter 5 (2021 Edition)

Station A	Knots & Hitches (1 Evaluator)	Mandatory Station
Station B	Haul & Lowering Systems: Low Angle (2 Evaluators)	Mandatory Station
Station C	Belay System (1 Evaluator; pair with station D)	Mandatory Station
Station D	Haul & Lowering Systems: High Angle (2 Evaluators)	Mandatory Station
Station E	Inspection & Maintenance (1 Evaluator)	Mandatory Station
Station F	Construct a Fixed Rope System (1 Evaluator)	Mandatory Station

All skills in the Rope Rescue Operation Level Skills Menu are Mandatory. All skills in the Rope Rescue Operations level **MUST** be passed with 100% of tasks being checked "YES." Any task checked "NO" in a skill station is a failure of that skill.

HOWEVER, skills B and D are broken into " SECTIONS. " Candidates who are unsuccessful at completing a section of skill B or D will only have to retest on the section that they failed.

Candidates who are unsuccessful at two or more sections in Skill Station B, " Hauling & Lowering Systems: Low Angle," or two or more in Skill Station D, " Haul & Lowering Systems: High Angle," will have to retest the entire skill station.

**AT NO TIME** will a candidate, evaluator, participant, facility staff, etc., approach any edge where a fall of more than three (3) feet is possible without being attached to a fall protection system or a travel restraint system unless they are attached to the main line and belay line or a twin tensioned system. Failure to follow these instructions will be an automatic failure of the station.

### **Minimum PPE for Rope Rescue testing:**

- Helmet/hardhat with chinstrap
- ANSI eye protection
- Gloves
- Safety toed footwear



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### NFPA 1006 (2021 Edition) Chapter 5

STATION A – Knots & Hitches		Reference NFPA 1006 (2021 Edition), Chapter 5 Mandatory Station: JPRs 5.2.4	
Test Site	Test Date	Candidate #	Check the Test Type ____ Initial ____ Retest

**Evaluator Note:** The candidate is only required to tie one listed knot per category.

**Directions:** Given rope, the candidate will tie five knots/hitches, so that all knots and hitches are properly tied, dressed, and secured with a safety.

**Performance Outcome:** Pass / Fail is determined by **All** tasks correctly performed.

No.	Tasks	Yes	No
1	Tie an end-of-line loop (bowline w/safety, figure 8 on a bight)		
2	Tie a midline loop (inline eight, alpine butterfly)		
3	Tie a rope around an object (figure 8 follow through, clove hitch w/safety)		
4	Tie a bend for joining rope together (figure 8 bend, double fisherman's (grapevine bend)		
5	Tie a bend joining webbing together (water knot/ring bend)		
6	Grip a rope (3-wrap prusik hitch)		
7	All knots and hitches are properly tied, dressed, and secured with a safety, as required		
<b>Please indicate skill outcome</b>		<b>PASS</b>	<b>FAIL</b>

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

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



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### NFPA 1006 (2021 Edition) Chapter 5

<b>STATION B – Haul &amp; Lowering Systems: Low Angle</b>		<b>Reference NFPA 1006 (2021 Edition), Chapter 5 Mandatory Station: JPRs 5.2.6, 5.2.7, 5.2.13, 5.2.14, 5.2.15, 5.2.16, 5.2.20, 5.2.21, 5.2.22</b>	
<b>Test Site</b>	<b>Test Date</b>	<b>Candidate #</b>	<b>Check the Test Type</b> ____ <b>Initial</b> ____ <b>Retest</b>

**Evaluator Note:** The station scenario will require the candidates to operate in a low-angle environment where candidates will lower, haul, and belay litter attendants.

**Directions:** Given life safety rope and rope rescue equipment, the candidates, working as a team, will construct a multi-point anchor system, construct, operate, direct the operation of a simple mechanical advantage haul system, construct, operate, and direct the operation of a lowering system, and perform a system safety check prior to operation, so that the load is hauled and lowered in a safe and controlled manner, the load is captured when all rope tension is released, and the anchor is constructed to capture anticipated load forces.

**Performance Outcome:** Pass / Fail is determined by **All** tasks correctly performed.

No.	Tasks	Yes	No
<b>Section 1: Anchor System</b>			
1	Selects anchor points that will capture anticipated load forces		
2	Constructs a multi-point anchor system that will accommodate the anticipated load		
3	Constructs systems to capture the load when input forces are released from the system		
<b>Section 2: Simple MA</b>			
4	Constructs and operates a simple 3:1 mechanical advantage haul system		
5	Performs a system safety check prior to loading and operating the systems		
6	Directs the operation of a simple 3:1 mechanical advantage haul system		
7	Constructs systems to capture the load when input forces are released from the system		
8	Completes operation in a safe and controlled manner		
<b>Section 3: Lowering System</b>			
9	Constructs and operates a lowering system		
10	Performs a system safety check prior to loading and operating the systems		
11	Directs the operation of a lowering system		
12	Constructs systems to capture the load when input forces are released from the system		
13	Completes operation in a safe and controlled manner		
<b>Section 4: Litter Attendant</b>			
14	Dons required PPE correctly for acting as litter attendants		
15	Attaches litter attendants securely to the litter		
16	Attaches litter securely to the belay, lower, and haul systems		
17	Packages a victim for transfer to EMS		
18	Directs a lower and haul operation within a low-angle rescue environment		
19	Completes operation in a safe and controlled manner		
<b>Please indicate skill outcome</b>		<b>PASS</b>	<b>FAIL</b>

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

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**Evaluator Signature:** \_\_\_\_\_

**Evaluator #** \_\_\_\_\_



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### NFPA 1006 (2021 Edition) Chapter 5

STATION C – Belay System		Reference NFPA 1006 (2021 Edition), Chapter 5 Mandatory Station: JPRs 5.2.5, 5.2.7, 5.2.9, 5.2.10, 5.2.11	
Test Site	Test Date	Candidate #	Check the Test Type ____ Initial ____ Retest

**Evaluator Note:** The station scenario will require the candidate to construct a multi-point anchor system and construct, operate and direct the operation of a belay within a single or two-tension rope system.

**Directions:** Given life safety rope and rope rescue equipment, the candidate will construct, and operate a belay system within a single or two-tension rope system so that the belay system is operated during a hauling and lowering operation, the load is captured when all rope tension is released, and a system safety check is performed prior to loading or operating the system.

**Performance Outcome:** Pass / Fail is determined by **All** tasks correctly performed.

No.	Tasks	Yes	No
1	Selects an anchor point that will capture anticipated load forces		
2	Constructs a single-point anchor system that will accommodate the anticipated load		
3	Constructs a belay system within a single or two-tension rope system		
4	Performs a system safety check prior to loading and operating the system		
5	Operates a belay system within a single or two-tension rope system in a hauling <b>and</b> lowering operation		
6	Constructs systems to capture the load when input forces are released from the system		
7	Captures the load when input forces are released from the system		
8	The candidate transfers the load from the belay system back onto the main line		
9	Completes operation in a safe and controlled manner		
		<b>PASS</b>	<b>FAIL</b>

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

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**Evaluator Signature:** \_\_\_\_\_

**Evaluator #** \_\_\_\_\_



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### NFPA 1006 (2021 Edition) Chapter 5

STATION D – Haul & Lowering Systems: High-Angle		Reference NFPA 1006 (2021 Edition), Chapter 5 Mandatory Station: JPRs 5.2.1, 5.2.5, 5.2.7, 5.2.8, 5.2.9, 5.2.10, 5.2.13, 5.2.14, 5.2.17, 5.2.18, 5.2.19, 5.2.23, 5.2.24	
Test Site	Test Date	Candidate #	Check the Test Type ____ Initial ____ Retest

**Evaluator Note:** The station scenario will require the candidates to operate in a high-angle environment where candidates will lower, haul, and belay a litter attendant.

**Directions:** Given life safety rope and rope rescue equipment, the candidates, working as a team, will construct a single-point anchor system, construct, operate, direct the operation of a compound mechanical advantage haul system, construct, operate, and direct the operation of a lowering system, and perform a system safety check prior to operation, so that the load is hauled, lowered, and belayed in a safe and controlled manner, the load is captured when all rope tension is released, and the anchor is constructed to capture anticipated load forces.

**Performance Outcome:** Pass / Fail is determined by **All** tasks correctly performed.

No.	Tasks	Yes	No
<b>Section 1: Size-up Situational Awareness</b>			
1	Initiates scene control, isolation procedures, and hazard control strategies		
2	Identifies the number of victims, victim condition, and victim location(s)		
3	Performs a size-up and provides an initial report to incoming units		
<b>Section 2: Belay System: Construction &amp; Operation</b>			
4	Selects anchor points that will capture anticipated load forces		
5	Constructs an anchor system that will accommodate the anticipated load		
6	Constructs and operates a belay system (single or two-tension rope system)		
7	Performs a system safety check prior to loading and operating the systems		
8	Places and secures edge/rope protection as required		
9	Completes operation in a safe and controlled manner		
<b>Section 3: MA &amp; Lowering System: Construction &amp; Operation</b>			
10	Constructs and operates a compound 6:1 mechanical advantage haul system		
11	Directs the operation of a compound 6:1 mechanical advantage haul system		
12	Constructs and operates a lowering system within a high-angle environment		
13	Directs the operation of a lowering system within a high-angle environment		
14	Performs a system safety check prior to loading and operating the systems		
15	Completes operation in a safe and controlled manner		

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#### Station D: Hauling & Lowering System: High-Angle (Page 2)

Section 4: Litter Attendant			
16	Utilizes fall protection as required		
17	Dons required PPE		
18	Attaches attendant and litter securely to the lowering system		
19	Attaches attendant and litter securely to the belay system		
20	Constructs systems to capture the load when input forces are released from the system		
21	The attendant negotiates an edge in a high-angle environment		
22	Directs a litter lower and raise in a high-angle operation		
23	Completes operation in a safe and controlled manner		
Section 5: Termination			
24	Terminates incident; eliminates or secures hazards; conducts an on-scene debriefing		
Please indicate skill outcome		PASS	FAIL

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

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



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STATION E – Inspection & Maintenance		Reference NFPA 1006 (2021 Edition), Chapter 5 Mandatory Station: JPRs 5.2.2, 5.2.3	
Test Site	Test Date	Candidate #	Check the Test Type ____ Initial ____ Retest

**Evaluator Note:** The candidate will explain maintenance procedures and demonstrate inspection procedures for the equipment and PPE listed.

**Directions:** Given rope rescue PPE and equipment, the candidate will explain the maintenance and cleaning procedures for each item and demonstrate inspection procedures for each item, in accordance with the manufacturer's recommendations so that deficiencies are identified, logged, and deficient items are removed from service in accordance with AHJ policies and procedures.

**Performance Outcome:** Pass / Fail is determined by **All** tasks correctly performed.

No.	Tasks	Yes	No
1	Life safety rope		
2	Webbing		
3	Prusik		
4	Rope rescue harness		
5	Helmet		
6	Gloves		
7	Eye Protection		
8	Rope rescue pulley		
9	Mechanical device (only one (1) device required)		
10	Friction Device (only one (1) device required)		
11	Carabiner		
12	Maintenance & inspection is documented in the appropriate log		
Please indicate skill outcome		<b>PASS</b>	<b>FAIL</b>

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

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



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<b>STATION F – Construct a Fixed Rope System</b>		<b>Reference NFPA 1006 (2021 Edition), Chapter 5</b> <b>Mandatory Station: JPRs 5.2.12</b>	
<b>Test Site</b>	<b>Test Date</b>	<b>Candidate #</b>	<b>Check the Test Type</b> ____ <b>Initial</b> ____ <b>Retest</b>

**Directions:** Given rope rescue PPE and equipment, the candidate will construct a fixed rope system given an anchor system and rope rescue equipment that can accommodate the anticipated load.

**Performance Outcome:** Pass / Fail is determined by **All** tasks correctly performed.

No.	Tasks	Yes	No
1	Assemble a fixed rope system		
2	Calculate the anticipated load within the systems WLL		
3	Setup of system is efficient		
4	Connect system to the anchor		
5	Complete a system safety check		
6	Evaluate system components for compromised safety		
7	Evaluate results to ensure they meet the requirements for ascending or descending		
8	Completes operation in a safe and controlled manner		
Please indicate skill outcome		<b>PASS</b>	<b>FAIL</b>

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

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