

# Rescue 3 International Rope Standard



The world leader in water and rope rescue education since 1979



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# Rescue 3 International

## Rope Rescue Training Standard

### 1. Rescue 3 Philosophy

- 1.1 Recall the steps required in order to develop judgment.
- 1.2 Explain the order of priorities when working at height

### 2. Training Standards

- 2.1 Recognize the different training courses within the Rescue 3 scheme
- 2.2 Recall the remit and role of an individual trained to this level
- 2.3 State how the Rescue 3 scheme fits within national and international standards
- 2.4 State how the Rescue 3 scheme fits within agency policy and agency standard operating guidelines

### 3. Medical considerations

- 3.1 Identify signs/symptoms and treatment for common medical issues found in a vertical environment
- 3.2 Identify individuals at risk for common medical issues found in a vertical environment, and control measures

### 4. Personal equipment

- 4.1 Identify personal protective equipment (PPE) for working at height
- 4.2 Recall national and international standards for PPE
- 4.3 Select appropriate PPE for working at height, perform pre-use checks, donning and buddy checks
- 4.4 Recall post-use care and inspection procedures for personal equipment

### 5. Technical Equipment

- 5.1 Identify technical equipment used for working or performing rescues at height, relative to the remit of someone trained to this level
- 5.2 Recall national and international standards for technical and team equipment
- 5.3 Recall post-use care and inspection procedures for technical and team equipment

### 6. Pre-planning

- 6.1 List the four components of a generic pre-plan
- 6.2 Identify sources of information useful for generic and task-/location- specific pre-planning
- 6.3 Describe key information that an agency would include in a pre-plan

### 7. Risk assessments

- 7.1 Identify the elements of an effective generic and site-specific risk assessment
- 7.2 Perform a generic or site-specific risk assessment
- 7.3 Identify the elements of an effective dynamic risk assessment
- 7.4 Perform a dynamic risk assessment of a working area at height

### 8. Incident size-up

- 8.1 Appreciate use of size-up models by the emergency services
- 8.2 Demonstrate use of size-up models
- 8.3 Explain the phases of a successful rescue
- 8.4 Identify basic rescue options and their limitations
- 8.5 Perform an on-site safety brief based on risk assessments
- 8.6 List rescue options
- 8.7 Select an appropriate plan of action for a given incident

## 9. Incident Management & Site Control

- 9.1 Based on hazard recognition, apply appropriate control measures to protect personnel and bystanders
- 9.2 Install and mark site zones
- 9.3 Identify issues and hazards of bystanders in the cold zone
- 9.4 Identify how and when to contact the emergency services in the event of an incident
- 9.5 Identify the role and responsibilities of an incident commander (IC)
- 9.6 Operate as a safety officer
- 9.7 Provide information for use in an incident management system
- 9.8 Operate as a technical rescue team leader in a small 2-3 person team
- 9.9 Operate as a technical rescue team leader in a team of 4 or more people
- 9.10 For a given task, appoint different roles (including safety officer) for the personnel and casualty present
- 9.11 For a given task, place appropriate markings for rigging the main line, safety line, artificial high directional, change of direction

## 10. Loads and forces

- 10.1 Differentiate between mass and force
- 10.2 Identify SI base units and derived units used in rope rescue
- 10.3 Describe the differences between static and dynamic forces
- 10.4 Recall the permissible maximum arrest force (MAF)
- 10.5 Recall the parameters of a worst case event (WCE)
- 10.6 Apply the worst case event and maximum arrest force to minimum breaking strength of equipment and system design
- 10.7 Recall appropriate system safety factors
- 10.8 Recall the use of leverage in rope rescue systems, its merits and limitations
- 10.9 Recall the difference between ideal, theoretical and actual mechanical advantage
- 10.10 Calculate the ideal mechanical advantage of a system
- 10.11 Calculate the theoretical mechanical advantage of a system

## 11. System safety checks

- 11.1 Identify the components of a system safety check
- 11.2 Perform a system safety check

## 12. Communications

- 12.1 Use whistle signals used in rope operations
- 12.2 Use verbal commands used in rope operations
- 12.3 Identify correct use of mobile radios in rope operations
- 12.4 Compare merits and limitations of communication methods in rope operations

## 13. Knots

- 13.1 Identify, tie and check appropriate knots for working or rescue at height relative to the remit of someone trained to this level
- 13.2 Recall factors affecting knot choice for working at height

## 14. Anchor systems

- 14.1 Identify use of anchor systems when working or performing rescues at height, relative to the remit of someone trained to this level
- 14.2 Identify, install and check appropriate anchor attachments for working or performing rescues at height, relative to the remit of someone trained to this level
- 14.3 Select an appropriate single anchor point
- 14.4 Identify, install and check load-sharing anchor systems, relative to the remit of someone trained to this level
- 14.5 Identify agency use or non-use of artificial anchor points
- 14.6 Identify, install and check temporary artificial anchor points, if used by agency

## 15. Rope Protection

- 15.1 Apply the worst case event and maximum arrest force to minimum breaking strength of equipment and system design

## **16. Work restraint**

- 16.1 Identify when work restraint equipment is used, its merits and limitations
- 16.2 Select, install and check appropriate horizontal work restraint equipment

## **17. Fall arrest**

- 17.1 Identify when fall arrest equipment is used, its merits and limitations
- 17.2 Use a fall arrest device using horizontal attachments
- 17.3 Use a fall arrest device using vertical attachments
- 17.4 Identify when combined work positioning and fall arrest equipment is used, its merits and limitations
- 17.5 Demonstrate resting during an ascent with a combined work positioning and fall arrest configuration

## **18. Emergency descending**

- 18.1 Identify hazards and control measures associated with pre-installed escape devices
- 18.2 Perform an emergency descent using a pre-installed escape device, if used by agency

## **19. Lead climbing with lanyards**

- 19.1 Identify when lanyards are used, their hazards and control measures
- 19.2 Demonstrate lead climbing with a lanyard
- 19.3 Demonstrate down-climbing with a lanyard

## **20. Connecting a casualty on a line using a telescopic pole**

- 20.1 Identify when a casualty would be connected to a line using a telescopic pole, its merits and limitations
- 20.2 Connect a casualty to a line, using a telescopic pole

## **21. Lifting and lowering a casualty using a preinstalled device**

- 21.1 Identify when a casualty would be lifted or lowered using a pre-installed device, its merits and limitations
- 21.2 Lift a casualty using a pre-installed device
- 21.3 Install, check and use an auto-locking lowering device with a single person load
- 21.4 Install, check and use an auto-locking lowering device with a rescue-sized load

## **22. Casualty care**

- 22.1 Identify personnel at risk to suspension-induced syncope, and control measures to minimize this
- 22.2 Demonstrate appropriate casualty care for suspected suspension-induced syncope

## **23. Casualty care and packaging**

- 23.1 Identify patient needs, hazards and control measures associated with casualty care and packaging, relative to the remit of someone trained to this level
- 23.2 Pack a casualty for horizontal transport
- 23.3 Pack a casualty for vertical transport

## **24. Mechanical advantage**

- 24.1 Identify the need for mechanical advantage systems within rope rescue.
- 24.2 Identify the hazards and control measures associated with mechanical advantage systems
- 24.3 Identify the different categories of mechanical advantage systems, their merits and limitations
- 24.4 Build and check a variety of mechanical advantage systems relative to the remit of someone trained to this level

## **25. Personal ascending and descending**

- 25.1 Identify hazards and control measures associated with ascending and descending
- 25.2 Demonstrate personal ascending in a variety of twin line systems
- 25.3 Demonstrate personal descending in a variety of twin line systems
- 25.4 Identify hazards and control measures associated with pre-installed escape devices
- 25.5 Perform an emergency descent using a pre-installed escape device, if used by agency

## **26. Passing obstructions while ascending/descending**

- 26.1 Identify obstructions that may be passed whilst ascending and descending, their hazards and control measures
- 26.2 Pass a variety of obstructions while ascending/descending

## **27. Individual pick-offs**

- 27.1 Identify when an individual pick-off would be performed, its merits and limitations
- 27.2 Demonstrate an individual pick-off
- 27.3 Identify when individual pick-off equipment with a pre-installed escape and rescue device is used

## **28. Rope transfers/changeovers**

- 28.1 Identify hazards and control measures associated with performing rope transfers/changeovers
- 28.2 Perform a rope transfer/changeover

## **29. Climbing over a 90 degree edge**

- 29.1 Identify when a 90 degree edge would be encountered, its hazards and control measures
- 29.2 Climb over a 90 degree edge

## **30. Team based pick-off**

- 30.1 Identify when a team-based pick-off would be performed, its merits and limitations
- 30.2 Participate in a team-based pick-off, relative to the remit of someone trained to this level

## **31. Litter management - low angle**

- 31.1 Identify hazards and control measures associated with low angle litter management
- 31.2 Participate in a variety of low angle litter management techniques

## **32. Team-based raising and lowering systems**

- 32.1 Explain the importance of working with twin lines
- 32.2 Identify when team rope-based raising and lowering systems would be used, their merits and limitations
- 32.3 Identify the importance of using an auto-locking lowering device with team rope-based raising and lowering systems
- 32.4 Rig and check team rope-based raising and lowering systems
- 32.5 Identify considerations for a change of direction mainline raising and lowering system
- 32.6 Convert a lowering system to a raising system whilst unloaded

## **33. Litter management - high angle**

- 33.1 Identify hazards and control measures associated with high angle litter management
- 33.2 Participate in a variety of high angle litter management techniques, relative to the remit of someone trained to this level

## **34. Tagline offsets**

- 34.1 Identify when tagline offsets would be used, their merits and limitations
- 34.2 Install, check and use a tagline offset

## **35. Steep Angle Considerations**

- 35.1 Identify the risks and operational challenges of working in steep angle terrain.
- 35.2 Rig and check and operate a litter based rope system in steep angle terrain.
- 35.3 Package a patient for steep angle rescue.
- 35.4 Function as a litter tender in steep angle terrain.

### **36. Mirrored team-based raising and lowering systems**

- 36.1 Explain the importance of working with twin lines
- 36.2 Identify when team rope-based raising and lowering systems would be used, their merits and limitations
- 36.3 Identify the importance of using an auto-locking lowering device with team rope-based raising and lowering systems
- 36.4 Rig and check team rope-based raising and lowering systems
- 36.5 Identify considerations for a change of direction mainline raising and lowering system
- 36.6 Convert a lowering system to a raising system while loaded
- 36.7 Identify when mirrored systems are used, their merits and limitations
- 36.8 Rig, check and use a mirrored system

### **37. Horizontal litter edge transition without attendant and without high directional**

- 37.1 Identify when a horizontal litter edge transition without attendant and without high directional would be used, its hazards and control measures
- 37.2 Perform a horizontal litter edge transition without attendant and without high directional

### **38. Vertical litter edge transition without attendant and without high directional**

- 38.1 Vertical litter edge transition without attendant and without high directional
- 38.2 Perform a vertical litter edge transition without attendant

### **39. Artificial high directions**

- 39.1 Identify when high directionals would be used, their merits and limitations
- 39.2 Install and check a high directional
- 39.3 Demonstrate an edge transition with the use of a high directional
- 39.4 Identify when monopods and bipods would be used as high directionals, their merits and limitations
- 39.5 Install and check a high directional using a monopod or bipod

### **40. Offsets - track/guideline, skateblock, deflection**

- 40.1 Identify when guiding line offsets would be used, their merits and limitations
- 40.2 Install, check and use guiding line offsets
- 40.3 Identify when skateblock offsets would be used, their merits and limitations
- 40.4 Install, check and use skateblock offsets
- 40.5 Identify when skateblock offsets would be used, their merits and limitations
- 40.6 Install, check and use tracking line offsets
- 40.7 Identify when deflected offsets would be used, their merits and limitations
- 40.8 Install, check and use deflected offsets

### **41. Passing knots through a system**

- 41.1 Identify when a knot would be passed through a system, its merits and limitations
- 41.2 Pass knots through systems

### **42. Introduction to highline systems**

- 42.1 Identify when highline systems would be used, their hazards and control measures

### **43. Scenarios**

- 43.1 Complete rope rescue scenarios, relative to the remit of someone trained to this level

#### **44. Force calculations, advanced systems analysis**

#### **45. Complex rescue scenarios**

#### **46. Advanced knots and anchor point variations**

#### **47. Releasable jigger anchors**

#### **48. Lead climbing with a shepherd's hook**

- 48.1 Identify when lead climbing with a shepherd's hook would be performed, its merits and limitations
- 48.2 Demonstrate lead climbing with a shepherd's hook

#### **49. Lead climbing with self-placed intermediate anchors**

- 49.1 Identify when lead climbing with self-placed intermediate anchors would be performed, its merits and limitation
- 49.2 Demonstrate lead climbing with self-placed intermediate anchors

#### **50. Aid climbing**

- 50.1 Identify when aid climbing would be performed, its merits and limitations
- 50.2 Demonstrate aid climbing

#### **51. Installing artificial anchors**

#### **52. First-man-up systems**

- 52.1 Identify when a first-man-up system would be used, its merits and limitations
- 52.2 Operate a first-man-up system

#### **53. Two rope offsets**

- 53.1 Identify when two rope offsets would be used, their merits and limitations
- 53.2 Install, check and use a two rope offset

#### **54. Highline rope system - Kootenay highline**

- 54.1 Identify when a Kootenay highline would be used, its merits and limitations
- 54.2 Install, check and use a Kootenay highline

#### **55. Highline rope system - English reeve**

- 55.1 Identify when an English reeve would be used in a highline, its merits and limitations
- 55.2 Rig, check and use a highline with an English reeve

#### **56. Highline rope system - Norwegian reeve**

- 56.1 Identify when a Norwegian reeve would be used in a highline, its merits and limitations
- 56.2 Rig, check and use a highline with a Norwegian reeve

#### **57. Multiple track lines in a highline system**

- 57.1 Identify when multiple track lines would be used in a highline system, their merits and limitations
- 57.2 Rig, check and use a highline system with multiple track lines

#### **58. Night scenarios**

- 58.1 Identify hazards associated with night/poor visibility operations, and apply suitable control measures
- 58.2 Perform a risk assessment and operate at night/in poor visibility

- 59. Rope rescue special problems**
- 60. Job risk analysis**
- 61. Developing standard operational procedures**
- 62. Developing and pre-planning rescue plans**
- 63. Size-up and hazard analysis of an incident**
- 64. Team briefing using a briefing model**
- 65. Supervising and guiding an operational team**
- 66. Communicating with other emergency services**
- 67. Performing a debriefing with a team**
- 68. Use of incident report forms**