Chapter 5 Job Performance Requirements

5.1 General Requirements. The job performance requirements defined in Sections 5.2 through 5.5 shall be met prior to certification as a rescue technician.

5.2 Site Operations.

5.2.1 Identify the needed support resources, given a specific type of rescue incident, so that a resource cache is managed, scene lighting is provided for the tasks to be undertaken, environmental concerns are managed, personnel rehabilitation is facilitated, and the support operation facilitates rescue operational objectives.

(A) *Requisite Knowledge:* Equipment organization and tracking methods, lighting resource type(s), shelter and thermal control options, and rehab criteria.

(B) *Requisite Skills:* The ability to track equipment inventory, identify lighting resources and structures for shelter and thermal protection, select rehab areas, and manage personnel rotations.

5.2.2 Size up a rescue incident, given background information and applicable reference materials, so that the type of rescue is determined, the number of victims is identified, the last reported location of all victims is established, witnesses are identified and interviewed, resource needs are assessed, search parameters are identified, and information required to develop an incident action plan is obtained.

(A) *Requisite Knowledge:* Types of reference materials and their uses, availability and capability of the resources, elements of an action plan and related information, relationship of size-up to the incident management system, and information gathering techniques and how that information is used in the size-up process.

(B) *Requisite Skills:* The ability to read technical rescue reference materials, gather information, relay information, and use information gathering sources.

5.2.3 Manage incident hazards, given scene control barriers, personal protective equipment, requisite equipment, and available specialized resources, so that all hazards are identified, resource application fits the operational requirements, hazard isolation is considered, risks to rescuers and victims are minimized, and rescue time constraints are taken into account.

(A) *Requisite Knowledge:* Resource capabilities and limitations, types and nature of incident hazards, equipment types and their use, isolation terminology, methods, equipment and implementation, operational requirement concerns, common types of rescuer and victim risk, risk–benefit analysis methods and practices, and types of technical references.

(B) *Requisite Skills:* The ability to identify resource capabilities and limitations, identify incident hazards, assess victim viability (risk–benefit), utilize technical references, place scene control barriers, and operate control and mitigation equipment.

5.2.4 Manage resources in a rescue incident, given incident information, a means of communication, resources, tactical worksheets, personnel accountability protocol, applicable references, and standard operating procedures, so that references are utilized, personnel are accounted for, deployed resources achieve desired objectives, incident actions are documented, rescue efforts are coordinated, the command structure is established, task assignments are communicated and monitored, and actions are consistent with applicable regulations.

(A) *Requisite Knowledge:* Incident management system, tactical worksheet application and purposes, accountability protocols, resource types and deployment methods, documentation methods and requirements, availability, capabilities, and limitations of rescuers and other resources, communication problems and needs, communications requirements, methods, and means, types of tasks and assignment responsibilities, policies and procedures of the agency, and technical references related to the type of rescue incident.

(B) *Requisite Skills:* The ability to implement an incident management system, complete tactical worksheets, use reference materials, evaluate incident information, match resources to operational needs, operate communications equipment, manage incident communications, and communicate in a manner so that objectives are met.

5.2.5 Conduct a search, given hazard-specific personal protective equipment, equipment pertinent to search mission, an incident location, and victim investigative information, so that search parameters are established, victim profile is established, the entry and exit of all people either involved in the search or already within the search area are questioned and the information is updated and relayed to command, the personnel assignments match their expertise, all victims are located as quickly as possible, applicable technical rescue concerns are managed, risks to searchers are minimized, and all searchers are accounted for.

(A) *Requisite Knowledge:* Local policies and procedures and how to operate in the site-specific search environment.

(B) *Requisite Skills:* The ability to enter, maneuver in, and exit the search environment and provide for and perform selfescape/rescue.

5.2.6* Perform ground support operations for helicopter activities, given a rescue scenario/incident, helicopter, operational plans, personal protective equipment, requisite equipment, and available specialized resources, so that rescue personnel are aware of the operational characteristics of the aircraft and demonstrate operational proficiency in establishing and securing landing zones and communicating with aircraft personnel until the assignment is complete.

(A) *Requisite Knowledge:* Ground support operations relating to helicopter use and deployment, operation plans for helicopter service activities, type-specific personal protective equipment, aircraft familiarization and hazard areas specific to helicopter, scene control and landing zone requirements, aircraft safety systems, and communications protocols.

(B) *Requisite Skills:* The ability to provide ground support operations, review standard operating procedures for helicopter operations, use personal protective equipment, establish and control landing zones, and communicate with aircrews.

5.2.7 Terminate the incident, given isolation barriers and specialized teams and equipment so that all personnel are accounted for and removed from the scene, hazards are mitigated, further entry is denied, the victim is transported to the definitive care facility, rescue personnel are returned to a state of readiness, appropriate reporting and documentation of the incident is completed, and a critique and critical incident stress debriefing is conducted with rescue personnel.

(A) *Requisite Knowledge:* How to identify and mitigate a scene, forms for documentation, resources for critical incident stress debriefing, and local medical transportation protocol.

(B) *Requisite Skills:* The ability to provide scene security, complete reporting documentation of the incident, and apply local medical transportation protocol.

5.3 Victim Management.

5.3.1 Access a victim, given tool kits, personal protective equipment, and other equipment designed to allow physical approach to the victim, so that hazards are managed, the rescuer can approach the victim, the access point is determined, the means of access is maintained and stabilized, and an escape route is identified.

(A) *Requisite Knowledge:* Recognition of and methods to

manage potential hazards within the rescue environment, methods and means to gain access, use of personal protective equipment and tool kit(s) used to gain access to the victim, and factors used to identify escape routes.
(B) *Requisite Skills:* The ability to manage hazards, use provided tools, use personal protective equipment, and choose safe entry and escape routes and techniques and tools (specific to the rescue environment) to make access to the victim.
5.3.2 Assess a victim, given personal protective equipment to include protection from airborne and bloodborne pathogens and a basic first aid kit, so that required resources can be identified and obtained, injuries are identified, risks to rescuers are minimized, victim viability is established, and treatment priorities are established.
(A) *Requisite Knowledge:* Victim assessment procedures, universal precautions for infectious disease, emergency medicalcare, criteria related to mechanisms of injuries, issues relating to protocol, and types of resources and availability.
(B) *Requisite Skills:* The ability to use personal protective clothing, use personal protective equipment, follow established assessment procedures, relate mechanism of injury to assessment, and evaluate scene hazards.
5.3.3 Stabilize the victim, given a basic first aid kit, so that the victim's airway is established and maintained, ventilation is provided as required, circulation is maintained, severe bleeding is controlled, spinal immobilization precautions are taken, and the victim is treated for shock.
(A) *Requisite Knowledge:* Emergency medical care and uses for personal protective equipment.
(B) *Requisite Skills:* The ability to initiate emergency medical care and use personal protective equipment.
5.3.4 Triage victims, given triage tags and local protocol, so that rescue versus recovery factors are assessed, triage decisions reflect resource capabilities, severity of injuries is determined, and victim care and rescue priorities are established in accordance with local protocol.
(A) *Requisite Knowledge:* Types and systems of triage according to local protocol, resource availability, methods to determine injury severity, ways to manage resources, and prioritization requirements.
(B) *Requisite Skills:* The ability to use triage materials, techniques, and resources and to categorize victims properly.
5.3.5* Package an ill or injured victim, given a basic first aid kit and other specialized equipment, so that environmental conditions are assessed, illnesses or injuries are managed, and the potential for further injury is minimized.
(A) *Requisite Knowledge:* Effects of environmental conditions on packaging, emergency medical care, packaging equipment and methods, ways to minimize additional injuries, immobilization techniques, and application of victim personal protective equipment.
(B) *Requisite Skills:* The ability to select and apply packaging equipment, protect a victim, immobilize injuries, and apply personal protective equipment to a victim.
5.3.6 Move a victim in a low-angle environment, given victim transport equipment, litters, other specialized equipment, and victim removal systems specific to the rescue environment, so that the victim is moved without undue further injuries, risks to rescuers are minimized, the integrity of the victim's securement within the transfer device is established and maintained, the means of attachment to the rope rescue system is maintained, and the victim is removed from the hazard.
(A) *Requisite Knowledge:* Types of transport equipment and removal systems, selection factors with regard to specific rescue environments, methods to reduce and prevent further injuries, types of risks to rescuers, ways to establish and maintain victim securement, transport techniques, rope rigging applications and methods, and types of specialized equipment and their uses.
(B) *Requisite Skills:* The ability to secure a victim to transport equipment, assemble and operate environment-specific victim removal systems, and choose an incident-specific transport device.
5.3.7 Transfer a victim to emergency medical services (EMS), given local medical protocols, so that all pertinent information is passed from rescuer to EMS provider, and the victim can be transported to a medical care facility.
(A) *Requisite Knowledge:* Medical protocols for victim transfer, uses for checklists, triage tags or report forms utilized for this purpose by the AHJ, risks, laws and liabilities related to victim transfer, and information needs of the EMS provider.
(B) *Requisite Skills:* The ability to report victim condition and history to the EMS provider and to complete reports and checklists, and verbal communications skills.
5.4 Maintenance.
5.4.1* Inspect and maintain hazard-specific personal protective equipment, given clothing or equipment for the protection of the rescuers, including respiratory protection, cleaning and sanitation supplies, maintenance logs or records, and such tools and resources as are indicated by the manufacturer's guidelines for assembly or disassembly of components during repair or maintenance, so that damage, defects, and wear are identified and reported or repaired, equipment functions as designed, and preventive maintenance has been performed and documented consistent with the manufacturer's recommendations.
(A) *Requisite Knowledge:* Functions, construction, and operation of personal protective equipment; use of record-keeping systems of the AHJ; requirements and procedures for cleaning, sanitizing, and infectious disease control; use of provided assembly and disassembly tools; manufacturer and department recommendations; pre-use inspection procedures; and ways to determine operational readiness.
(B) *Requisite Skills:* The ability to identify wear and damage indicators for personal protective equipment; evaluate operational readiness of personal protective equipment; complete logs and records; use cleaning equipment, supplies, and reference materials; and select and use tools specific to the task.
5.4.2* Inspect and maintain rescue equipment, given maintenance logs and records, tools, and resources as indicated by the manufacturer's guidelines, an equipment replacement protocol, and organizational standard operating procedure, so that the operational status of equipment is verified and documented, all components are checked for operation, deficiencies are repaired or reported as indicated by standard operating procedure, and items subject to replacement protocol are correctly disposed of and changed.
(A) *Requisite Knowledge:* Functions and operations of rescue equipment, use of record-keeping systems, manufacturer and organizational care and maintenance requirements, selection and use of maintenance tools, replacement protocol and procedures, disposal methods, and organizational standard operating procedures.
(B) *Requisite Skills:* The ability to identify wear and damage indicators for rescue equipment, evaluate operation readiness of equipment, complete logs and records, and select and use maintenance tools.
5.5 Ropes/Rigging.
5.5.1 Tie knots, bends, and hitches, given ropes and webbing, so that the knots are dressed, recognizable, and back up as required.

(A) *Requisite Knowledge:* Knot efficiency, knot utilization, rope construction, and rope terminology.
(B) *Requisite Skills:* The ability to tie representative knots, bends, or hitches for the following purposes:
(1) End of line loop
(2) Midline loop
(3) Securing rope around desired objects
(4) Joining rope or webbing ends together
(5) Gripping rope

5.5.2 Construct a single-point anchor system, given life safety rope, edge protection, and other auxiliary rope rescue equipment, so that the chosen anchor system fits the incident needs, meets or exceeds the expected load, and does not interfere with rescue operations, the critical angle is not exceeded, an efficient anchor point is chosen, the need for redundant anchor points is assessed and used as required, the anchor system is inspected and loaded prior to being placed into service, and the integrity of the system is maintained throughout the operation.
(A) *Requisite Knowledge:* Application of knots, rigging principles, anchor selection criteria, system safety check procedures, rope construction, and rope rescue equipment applications and limitations.
(B) *Requisite Skills:* The ability to select rope and equipment; tie knots; rig systems; evaluate anchor points for required strength, location, and surface contour; and perform a system safety check.

5.5.3 Construct a simple rope mechanical advantage system, given life safety rope, carabiners, pulleys, rope grab devices, and auxiliary rope rescue equipment, so that the system constructed can accommodate the load, is efficient, and is connected to an anchor system and the load.
(A) *Requisite Knowledge:* Principles of mechanical advantage, capabilities and limitations of various simple rope mechanical advantage systems, application of knots, rigging principles, and system safety check procedures.
(B) *Requisite Skills:* The ability to select rope and equipment, tie knots, choose and rig systems, attach the mechanical advantage system to the anchor system and load, and perform a system safety check.

5.5.4 Direct a team in the operation of a simple rope mechanical advantage system, given rescue personnel, an established rope rescue system incorporating a simple rope mechanical advantage system, a load to be moved, and an anchor system, so that the movement is controlled, the load can be held in place when needed, operating methods do not stress the system to the point of failure, commands are used to direct the operation, and potential problems are identified, communicated, and managed.
(A) *Requisite Knowledge:* Principles of mechanical advantage, capabilities and limitations of various simple rope mechanical advantage systems, proper operation of simple rope mechanical advantage systems, personnel assignments, and operational commands.
(B) *Requisite Skills:* The ability to direct personnel effectively, use operational commands, analyze system efficiency, identify safety concerns, and perform system safety check.

5.5.5 Construct a lowering system, given an anchor system, life safety rope(s), descent control device, and auxiliary rope rescue equipment, so that the system can accommodate the load, is efficient, is capable of controlling the descent, is capable of holding the load in place or lowering with minimal effort over the required distance, and is connected to an anchor system and the load.
(A) *Requisite Knowledge:* Capabilities and limitations of various descent control devices, capabilities and limitations of various lowering systems, application of knots, rigging principles, and system safety check procedures.
(B) *Requisite Skills:* The ability to tie knots, perform rigging, attach to descent control device, anchor system, and load, and perform a system safety check.

5.5.6 Direct a lowering operation, given rescue personnel, an established lowering system, and a load to be moved, so that the movement is controlled, the load can be held in place when needed, operating methods do not stress the system to the point of failure, rope commands are used to direct the operation, and potential problems are identified, communicated, and managed.
(A) *Requisite Knowledge:* Application and use of descent control devices, capabilities and limitations of various lowering systems, operation of lowering systems, personnel assignments, and operational commands.
(B) *Requisite Skills:* The ability to direct personnel, use operational commands, analyze system efficiency, manage movement of the load, identify safety concerns, and perform a system safety check.

5.5.7 Construct a belay system, given life safety rope, anchor systems, personal protective equipment, and rope rescue equipment, so that the system is capable of arresting a fall, a fall will not result in system failure, the system is not loaded unless actuated, actuation of the system will not injure or render the belayer ineffective, the belayer is not rigged into the equipment components of the system, and the system is suitable to the site and is connected to an anchor system and the load.
(A) *Requisite Knowledge:* Principles of belay systems, capabilities and limitations of various belay devices, application of knots, rigging principles, and system safety check procedures.
(B) *Requisite Skills:* The ability to select a system, tie knots, perform rigging, attach to anchor system and load, don and use task-specific personal protective equipment, and perform a system safety check.

5.5.8 Operate a belay system during a lowering or raising operation, given an operating lowering or hauling system, a belay system, and a load, so that the belay line is not loaded during operation of the primary rope rescue system, the belay system is prepared for actuation at all times during the operation, the belayer is attentive at all times during the operation, the load's position is continually monitored, and the belayer moves rope through the belay device as designed.
(A) *Requisite Knowledge:* Application and use of belay devices, proper operation of belay systems in conjunction with normal lowering and hauling operations, and operational commands.
(B) *Requisite Skills:* The ability to tend a belay system as designed, tie approved knots, assess system effectiveness, properly attach a belay line to a belay device, don and use taskspecific personal protective equipment, perform a system safety check, and manage and communicate belay system status effectively.

5.5.9 Belay a falling load, given a belay system and a dropped load, so that the belay line is not taut until the load is falling, the belay device is actuated when the load falls, the fall is arrested, the belayer utilizes the belay system as designed, and the belayer is not injured or rendered ineffective during actuation of the belay system.
(A) *Requisite Knowledge:* Application and use of belay devices, effective emergency operation of belay devices to arrest falls, personal protective equipment, and operating procedures.
(B) *Requisite Skills:* The ability to operate a belay system as designed, tie approved knots, use task-specific personal protective equipment, recognize and arrest a falling load, and communicate belay system actuation.

5.5.10 Conduct a system safety check, given a rope rescue system and rescue personnel, so that a physical/visual check of

the system is made to ensure proper rigging, a load test is performed prior to life-loading the system, and verbal confirmation of these actions is announced and acknowledged before life-loading the rope rescue system.

(A) *Requisite Knowledge:* System safety check procedures, construction and operation of rope rescue systems and their individual components, personal protective equipment, equipment inspection criteria, signs of equipment damage, principles of rigging, and equipment replacement criteria.

(B) *Requisite Skills:* The ability to apply and use personal protective equipment, inspect rope rescue system components for damage, assess a rope rescue system for configuration, secure equipment components, inspect all rigging, and perform a system safety check.