NFPA®

1005

Standard for Professional Qualifications for Marine Fire Fighting for Land-Based Fire Fighters

2019

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NFPA® 1005

Standard for

Professional Qualifications for Marine Fire Fighting for Land-Based Fire Fighters

2019 Edition

This edition of NFPA 1005, *Standard for Professional Qualifications for Marine Fire Fighting for Land-Based Fire Fighters*, was prepared by the Technical Committee on Fire Fighter Professional Qualifications and released by the Correlating Committee on Professional Qualifications. It was issued by the Standards Council on November 5, 2018, with an effective date of November 25, 2018, and supersedes all previous editions.

This edition of NFPA 1005 was approved as an American National Standard on November 25, 2018.

Origin and Development of NFPA 1005

In 1972, the Joint Council of National Fire Service Organizations (JCNFSO) created the National Professional Qualifications Board for the Fire Service (NPQB) to facilitate the development of nationally applicable performance standards for uniformed fire service personnel. On December 14, 1972, the Board established four technical committees to develop those standards using the National Fire Protection Association (NFPA) standards-making system.

The initial committees addressed the following career areas: fire fighter, fire officer, fire service instructor, and fire inspector and investigator. The original concept of the professional qualification standards, as directed by the JCNFSO and the NPQB, was to develop an interrelated set of performance standards specifically for the fire service. The various levels of achievement in the standards were to build upon each other within a strictly defined career ladder. In the late 1980s, revisions of the standards recognized that the documents should stand on their own merit in terms of job performance requirements for a given field. Accordingly, the strict career ladder concept was abandoned, except for the progression from fire fighter to fire officer. The later revisions, therefore, facilitated the use of the documents by other than the uniformed fire services.

The Standards Council, at its July 2000 meeting, received a letter from the Department of Defense (DoD), requesting consideration for a new project on shipboard fire fighting for land-based units. The Standards Council placed a notice in *NFPA News* seeking input on interest for such a project. At its January 2001 meeting, the Council approved the establishment of a new technical committee under the Professional Qualifications Project to address the request. The Technical Correlating Committee on Professional Qualifications assigned this new project to the Technical Committee on Fire Fighter Professional Qualifications. That committee in turn named Mike Wieder to chair a task group of individuals with background in shipboard fire fighting.

The first edition of this standard included the professional qualifications for shipboard fire fighting for land-based units at Level I and Level II. The technical committee expressed thanks to the members of the Ship Board Fire Fighting Task Group who provided their time and expertise in the development of this document, which included Mike Wieder, Chair; Paul Calderwood; Luke Carpenter; Douglas Dillon; Brian Gallant; Jeff Johnson; John Lewis; Henry Morse; William Sullivan; and Don Merkle.

For the 2014 edition, the Technical Committee on Fire Fighter Professional Qualifications reassessed the job performance requirements for land-based fire fighters responding to marine fire-fighting incidents. The result was a significant change to the document, including the deletion of similar JPRs found in NFPA 1001, *Standard on Fire Fighter Professional Qualifications*, and the combining of JPRs for two levels into one. The technical committee expanded the prerequisite requirement to also include personnel who have qualified to Chapters 6 and 7 of NFPA 1081, *Standard on Industrial*

Fire Brigade. The subsections for this document were revised to include general requirements, access, response, communications, and fire control.

For the 2019 edition, the Technical Committee on Fire Fighter Professional Qualifications has reviewed the job performance requirements for marine fire fighting for land-based fire fighters. Definitions and terminology have been updated to maintain parity with NFPA 1001, *Standard on Fire Fighter Professional Qualifications*. The technical committee has included in many JPRs the need for requisite knowledge on how to interact with a vessel's personnel during an incident. The technical committee has included an annex to provide an overview of the JPRs. An annex also has been added outlining the "16 Firefighter Life Safety Initiatives" supported by the National Fallen Firefighters Foundation.

Correlating Committee on Professional Qualifications

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Rep. International Fire Service Training Association

Brian R. Brauer, University of Illinois Fire Service Institute, IL [E]
Rep. National Board on Fire Service Professional Qualifications

Gregg A. Cleveland, La Crosse Fire Department, WI [U]
Rep. NFPA Fire Service Section

Gordon Descutner, Alaska DPS Fire Standards Council, AK [E]
Rep. Alaska Fire Standards Council

Angus Maclean Duff, Consolidated Fire District 2, KS [U]

Richard A. Dunn, SC State Firefighters' Association, SC [E]

Richard T. Dunton, Unified/Rochester/Milton Fire Departments, NH [E]

Alec Feldman, Fulcrum Consultants, Ireland [SE]
Rep. JOIFF-International Organisation for Industrial Hazard Management

Douglas P. Forsman, Fairfield Bay Fire Department, AR [L]

Scott M. Gorgon, North Las Vegas Fire Department, NV [L]
Rep. International Association of Fire Fighters

R. Kirk Hankins, Fire Consulting & Case Review International, Inc., MO [U]
Rep. International Association of Arson Investigators, Inc.

Richard A. Mason, National Fallen Firefighters Foundation, NH [SE]
Rep. National Fallen Fire Fighters Foundation

Bill Slosson, Washington State Patrol, WA [E]

Philip C. Stittleburg, La Farge Fire Department, WI [L]
Rep. National Volunteer Fire Council

Christopher A. Toten, US Marine Corps, TX [E]

Charles Randy Watson, S-E-A, Ltd., GA [SE]

Tracie M. Young-Brungard, Pennsylvania Office of the State Fire Commissioner, PA [E]
Rep. International Fire Service Accreditation Congress

Michael J. Yurgec, Global Emergency Products, IL [M]

Dalan Lee Zartman, Rescue Methods, OH [U]

Alex Zielinski, Safety Training Services, IN [SE]

Alternates

Thomas W. Aurnhammer, Los Pinos Fire District, CO [U]
(Alt. to R. Kirk Hankins)

Wayne Bailey, North Carolina Fire & Rescue Commission, NC [E]
(Alt. to Tracie M. Young-Brungard)

David W. Lewis, Odenton, MD [L]
(Alt. to Philip C. Stittleburg)

Frederick W. Piechota, Jr., National Board on Fire Service Professional Qualifications, MA [E]
(Alt. to Brian R. Brauer)

Nonvoting

Stephen P. Austin, Cumberland Valley Volunteer Firemen's Association, DE [L]
Rep. TC on Traffic Control Incident Management Professional Qualifications

Alan W. Conkle, Ohio Association of Emergency Vehicle Technicians (OAEVT), OH [M]
Rep. TC on Emergency Vehicle Mechanic Technicians Professional Qualifications

John S. Cunningham, Nova Scotia Firefighters School, Canada [U]
Rep. TC on Fire Fighter Professional Qualifications

Jay Dornseif, III, Priority Dispatch Corporation, UT [M]
Rep. TC on Public Safety Telecommunicator Professional Qualifications

Richard C. Edinger, Chesterfield, VA [E]
Rep. TC on Hazardous Materials Response Personnel

Ronald R. Farr, Plainwell Fire Department, MI [C]
Rep. TC on Electrical Inspection Practices

Dave E. Hanneman, Idaho Falls Fire Department, ID [U]
Rep. TC on Incident Management Professional Qualifications

Edward M. Hawthorne, Shell Oil Company, TX [U]
Rep. TC on Industrial Fire Brigades Professional Qualifications

Orlando P. Hernandez, Texas Division of Emergency Management, TX [E]
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Ronald L. Hopkins, TRACE Fire Protection & Safety Consultant, Ltd., KY [SE]
Rep. TC on Fire Service Instructor Professional Qualifications

Robert J. James, UL LLC, IL
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Rep. TC on Fire Inspector Professional Qualifications

Randal E. Novak, Ames, IA [SE]
Rep. TC on Accreditation & Certification Professional Qualifications

Ryan Peterson, Orem Fire Department, UT [U]
Rep. TC on Unmanned Aircraft Systems

Lawrence L. Preston, Maryland Fire and Rescue Institute, MD [E]
Rep. TC on Fire Officer Professional Qualifications

Jim Stumpf, Organizational Quality Associates, ID [SE]
Rep. TC on Wildfire Suppression Professional Qualifications

Nancy J. Trench, Fire Protection Publications, OK [M]
Rep. TC on Public Fire Educator Professional Qualifications

Paul Valentine, TUV SUD America Inc./Global Risk Consultants, IL [M]
Rep. TC on Fire Marshal Professional Qualifications

George A. Wendt, Travelers Insurance Company, NJ [I]
Rep. TC on Fire Investigator Professional Qualifications

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Committee Scope: This Committee shall have primary responsibility for the management of the NFPA Professional Qualifications Project and documents related to professional qualifications for fire service, public safety, and related personnel.

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Nova Scotia Firefighters School, Canada [U]

Bob Allen, Oklahoma Emergency Management, OK [SE]

Michael M. Athey, Shepherdstown Fire Department, WV [L]

Adam C. Ballard, Aberdeen Proving Ground Fire & Emergency Services, MD [L]

Richard L. Best, National Fallen Firefighters Foundation, OH [L]

Michael Caviness, North Carolina Office of the State Fire Marshal, NC [E]

J. T. Collier, City of Scottsdale Fire Department, AZ [L]

Alec Feldman, Fulcrum Consultants, Ireland [SE]
Rep. JOIFF-International Organisation for Industrial Hazard Management

Kenn Fontenot, LSU Fire & Emergency Training, LA [L]
Rep. National Volunteer Fire Council

Sara G. Garcia, Petersburg Volunteer Fire Department, AK [E]
Rep. Alaska Fire Standards Council

Douglas R. Goodings, Blue River Community College, MO [U]

Craig L. Hannan, Fire Protection Publications, OK [M]
Rep. International Fire Service Training Association

David R. Harris, US Air Force, NJ [L]

Edward M. Hawthorne, Shell Oil Company, TX [U]

C. Gordon Henderson, Georgia Firefighter Standards & Training Council, GA [E]
Rep. Georgia State Firefighter's Association, Inc.

Forest Herndon, Jr., Maritime Emergency Response Educators LLC, NJ [SE]

Jim Jobusch, Town of Gilbert Fire Department, AZ [U]

Jeff Johnson, Resolve Marine Group, WA [U]

Todd R. Kollar, State of Alaska Department of Public Safety, AK [SE]

F. Patrick Marlatt, Maryland Fire and Rescue Institute, MD [SE]

Justin McMillian, Jackson County Fire Department, MS [L]

Jerome E. Ozog, Volunteer Firemen's Insurance Services, Inc., PA [I]
Rep. Volunteer Firemen's Insurance Services, Inc.

David Alan Rickel, Commander Navy Installations, FL [E]

Christina Spoons, Westmont Fire Department, IL [L]

Tina Takahashi, City of Westminster, CO [L]
Rep. International Association of Women in Fire & Emergency Services

Donald H. J. Turno, Savannah River Nuclear Solutions, LLC, SC [U]

Jimmy VanCleve, Kentucky Fire Commission, KY [SE]

John T. Wade, Gulf States Engineering, Inc., MS [SE]

Dudley H. A. Wright II, Monroe Township Fire Department, OH [U]

Alternates

Scott E. Avery, Fire Service Testing Company, Inc., MO [RT]
(Voting Alternate)

James Bryan Crisp, Nikiski Fire Department, AK [E]
(Alt. to Sara G. Garcia)

Jonathan David Hart, Maryland Fire Rescue Institute, MD [SE]
(Alt. to F. Patrick Marlatt)

Ryan N. Pietzsch, Volunteer Firemen's Insurance Services, Inc., PA [I]
(Alt. to Jerome E. Ozog)

Michael Duane Shaffer, Verdigris Fire Protection District, OK [SE]
(Alt. to Bob Allen)

Robert F. Shaw, State of Alaska Department of Public Safety, AK [SE]
(Alt. to Todd R. Kollar)

John P. Smith, U.S. Air Force, FL [L]
(Alt. to David R. Harris)

George Stevens, Lamar County Board of Supervisors, MS [L]
(Alt. to Kenn Fontenot)

Matthew Brian Thorpe, North Carolina Office of State Fire Marshal, NC [E]
(Alt. to Michael Caviness)

Michael A. Wieder, Fire Protection Publications, OK [M]
(Alt. to Craig L. Hannan)

Robert Fash, NFPA Staff Liaison

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NOTE: Membership on a committee shall not in and of itself constitute an endorsement of the Association or any document developed by the committee on which the member serves.

Committee Scope: This Committee shall have primary responsibility for documents on professional qualifications required of fire fighters.

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NFPA 1005

Standard for

Professional Qualifications for Marine Fire Fighting for Land-Based Fire Fighters

2019 Edition

NOTICE: An asterisk (*) following the number or letter designating a paragraph indicates that explanatory material on the paragraph can be found in Annex A.

A reference in brackets [ ] following a section or paragraph indicates material that has been extracted from another NFPA document. As an aid to the user, the complete title and edition of the source documents for extracts in mandatory sections of the document are given in Chapter 2 and those for extracts in informational sections are given in Annex C. Extracted text may be edited for consistency and style and may include the revision of internal paragraph references and other references as appropriate. Requests for interpretations or revisions of extracted text shall be sent to the technical committee responsible for the source document.

Information on referenced publications can be found in Chapter 2 and Annex E.

Chapter 1 Administration

1.1 Scope. This standard identifies the minimum job performance requirements (JPRs) for Marine Fire Fighting for Land-Based Fire Fighters.

1.2* Purpose. The purpose of this standard is to specify the minimum job performance requirements for Land-Based Fire Fighters operating at marine fire-fighting incidents.

1.2.1 This standard shall define Marine Fire Fighting for Land-Based Fire Fighters.

1.2.2 The intent of the standard shall be to ensure that personnel serving as Marine Fire Fighting for Land-Based Fire Fighters are qualified.

1.2.3* This standard shall not address organization/management responsibility.

1.2.4 It is not the intent of this standard to restrict any jurisdiction from exceeding or combining these minimum requirements.

1.2.5 Job performance requirements are the tasks personnel shall be able to perform to carry out the job duties. *(See Annex B.)*

1.2.6* Marine Fire Fighting for Land-Based Fire Fighters shall remain current with the general knowledge and skills and JPRs addressed in the level of qualification.

1.3 Application. The application of this standard is to specify which requirements within the document shall apply to Marine Fire Fighting for Land-Based Fire Fighters.

1.3.1 The JPRs shall be accomplished in accordance with the requirements of the authority having jurisdiction (AHJ) and all applicable NFPA standards.

1.3.2 It shall not be required that the JPRs be mastered in the order in which they appear. The AHJ shall establish instructional priority and the training program content to prepare personnel to meet the JPRs of this standard. *(See Annex B.)*

1.3.3* Performance of each requirement of this standard shall be evaluated by personnel approved by the AHJ.

1.3.4 The JPRs shall be completed in accordance with recognized practices and procedures or as defined by law or by the AHJ.

1.3.5 Personnel assigned the duties for Marine Fire Fighting for Land-Based Fire Fighters shall meet all of the requirements defined in Chapter 4 prior to being qualified.

1.3.6 The AHJ shall provide personal protective clothing and the equipment necessary to conduct assignments.

1.3.7 JPRs involving exposure to products of combustion shall be performed in approved personal protective equipment.

1.3.8 Prior to training to meet the requirements of this standard, personnel shall meet the following requirements:

(1) Educational requirements established by the AHJ
(2) Age requirements established by the AHJ
(3) Medical requirements as established by the AHJ
(4) Job-related physical performance requirements as established by the AHJ

1.3.9 Wherever in this standard the terms *rules, regulations, policies, procedures, supplies, apparatus,* or *equipment* are referred to, it is implied that they are those of the AHJ.

1.4 Units. In this standard, values for measurement are followed by an equivalent in SI units, but only the first stated value shall be regarded as the requirement. Equivalent values in SI units shall not be considered as the requirement, because these values can be approximate. *(See Table 1.4.)*

Δ Table 1.4 SI Conversions

Quantity	U.S. Unit/Symbol	SI Unit/Symbol	Conversion Factor
Length	inch (in.)	millimeter (mm)	1 in. = 25.4 mm
	foot (ft)	meter (m)	1 ft = 0.305 m
Area	square foot (ft^2)	square meter (m^2)	1 ft^2 = 0.0929 m^2

Chapter 2 Referenced Publications

2.1 General. The documents or portions thereof listed in this chapter are referenced within this standard and shall be considered part of the requirements of this document.

2.2 NFPA Publications. National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471.

NFPA 1001, *Standard for Fire Fighter Professional Qualifications,* 2019 edition.

NFPA 1081, *Standard for Facility Fire Brigade Member Professional Qualifications,* 2018 edition.

2.3 Other Publications.

Merriam-Webster's Collegiate Dictionary, 11th edition, Merriam-Webster, Inc., Springfield, MA, 2003.

2.4 References for Extracts in Mandatory Sections.

NFPA 1000, *Standard for Fire Service Professional Qualifications Accreditation and Certification Systems,* 2017 edition.

NFPA 1001, *Standard for Fire Fighter Professional Qualifications,* 2019 edition.

NFPA 1002, *Standard for Fire Apparatus Driver/Operator Professional Qualifications,* 2017 edition.

NFPA 1031, *Standard for Professional Qualifications for Fire Inspector and Plan Examiner,* 2014 edition.

NFPA 1081, *Standard for Facility Fire Brigade Member Professional Qualifications,* 2018 edition.

NFPA 1405, *Guide for Land-Based Fire Fighters Who Respond to Marine Vessel Fires,* 2016 edition.

NFPA 1710, *Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments,* 2016 edition.

Chapter 3 Definitions

3.1 General. The definitions contained in this chapter shall apply to the terms used in this standard. Where terms are not defined in this chapter or within another chapter, they shall be defined using their ordinarily accepted meanings within the context in which they are used. *Merriam-Webster's Collegiate Dictionary*, 11th edition, shall be the source for the ordinarily accepted meaning.

3.2 NFPA Official Definitions.

3.2.1* Approved. Acceptable to the authority having jurisdiction.

3.2.2* Authority Having Jurisdiction (AHJ). An organization, office, or individual responsible for enforcing the requirements of a code or standard, or for approving equipment, materials, an installation, or a procedure.

3.2.3* Listed. Equipment, materials, or services included in a list published by an organization that is acceptable to the authority having jurisdiction and concerned with evaluation of products or services, that maintains periodic inspection of production of listed equipment or materials or periodic evaluation of services, and whose listing states that either the equipment, material, or service meets appropriate designated standards or has been tested and found suitable for a specified purpose.

3.2.4 Shall. Indicates a mandatory requirement.

3.2.5 Should. Indicates a recommendation or that which is advised but not required.

3.2.6 Standard. An NFPA Standard, the main text of which contains only mandatory provisions using the word "shall" to indicate requirements and that is in a form generally suitable for mandatory reference by another standard or code or for adoption into law. Nonmandatory provisions are not to be considered a part of the requirements of a standard and shall be located in an appendix, annex, footnote, informational note, or other means as permitted in the NFPA Manuals of Style. When used in a generic sense, such as in the phrase "standards development process" or "standards development activities," the term "standards" includes all NFPA Standards, including Codes, Standards, Recommended Practices, and Guides.

3.3 General Definitions.

3.3.1 Bow. The front end of a boat or vessel. [**1405,** 2016]

3.3.2 Cold Zone. See 3.3.4.1.

3.3.3 Compartment. A subdivision of space or room in a ship.

3.3.4 Control Zones. The areas at an incident that are designated based upon safety and the degree of hazard to the fire fighter.

3.3.4.1* *Cold Zone.* The control zone of an incident that contains the command post and other support functions deemed necessary to control the incident.

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Δ 3.3.5 Draft. (1) The vertical distance between the water surface and the lowest point of a vessel. (2) The depth of water a vessel needs to float.

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3.3.6 Fire Fighter II. A person at the second level of progression, as defined in Chapter 5 of NFPA 1001, who has demonstrated the skills and depth of knowledge to function under general supervision.

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3.3.7 Job Performance Requirement (JPR). A written statement that describes a specific job task, lists the items necessary to complete the task, and defines measurable or observable outcomes and evaluation areas for the specific task. [**1000,** 2017]

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3.3.8 Marine Facility. Any land-based facility that incorporates buildings, personnel, equipment, docks, moorings, and other features to support the docking, loading, unloading, maintenance, and servicing of marine vessels.

3.3.9 Marine Incident. Any fire, explosion, hazardous material, utility, or other type of emergency incident on or in the vicinity of a marine vessel and/or facility to which a fire department can be expected to respond.

3.3.10 Master. The captain of a merchant ship. [**1405,** 2016]

3.3.11 Mate. A deck officer on a merchant ship ranking below the master. [**1405,** 2016]

3.3.12 Mooring. (1) Permanent anchor equipment (attached by a chain to a buoy) to which a vessel can connect a line, wire, or chain, eliminating the need to use the vessel's anchor. (2) The act of securing a vessel. (3) The location where a vessel is berthed.

Δ **3.3.13 Personal Protective Equipment (PPE) — Fire Operations.** The full complement of garments fire fighters are required to wear while on an emergency scene, including turnout coat, protective trousers, fire-fighting boots, fire-fighting gloves, a protective hood, self-contained breathing apparatus (SCBA), a personal alert safety system (PASS) device, and a helmet with eye protection. [**1001,** 2019]

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3.3.14 Port. General area of a shore establishment having facilities for the landing, loading/unloading, and maintenance of vessels; harbor with piers.

3.3.15 Port Side. The left-hand side of a ship when facing forward. [**1405,** 2016]

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3.3.16 Procedure. The series of actions, conducted in an approved manner and sequence, designed to achieve an intended outcome. [**1081,** 2018]

3.3.17 Requisite Knowledge. Fundamental knowledge one must have in order to perform a specific task. [**1031,** 2014]

3.3.18 Requisite Skills. The essential skills one must have in order to perform a specific task. [**1031,** 2014]

3.3.19 Secondary Line. A back-up hose line and crew that accompanies the primary attack line and crew into the hot zone at an incident.

3.3.20 Ship's Agent. A person or firm who transacts all business in a port on behalf of ship owners or charterers.

3.3.21 Ship's Engineer. Officer on a mechanically propelled vessel charged with maintenance and efficient operation of main engines and, usually, all powered machinery on board.

3.3.22 Starboard Side. The right-hand side of a ship as one faces forward. [**1405,** 2016]

3.3.23 Stern. The after end of boat or vessel. [**1405,** 2016]

3.3.24 Structural Fire Fighting. The activities of rescue, fire suppression, and property conservation in buildings, enclosed structures, aircraft interiors, vehicles, vessels, aircraft, or like properties that are involved in a fire or emergency situation. [**1710,** 2016]

3.3.25 Task. A specific job behavior or activity. [**1002,** 2017]

3.3.26 Team. Two or more individuals who have been assigned a common task and are in proximity to and in direct communication with each other, coordinate their activities as a work group, and support the safety of one another.

3.3.27 Trim. (1) The longitudinal angle of a vessel. (2) The relation of the vessel's floating attitude to the water considered from front to back. (3) The difference between fore and aft draft readings. (4) To cause a vessel to assume a desirable position in the water by arrangement of ballast, cargo, or passengers.

3.3.28 Vessel. The general term for all craft capable of floating on water and larger than a rowboat.

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Chapter 4 Marine Fire Fighter

Δ **4.1 General Requirements.** To meet the requirements for Marine Fire Fighter, the Fire Fighter II shall meet the JPRs in Sections 4.1 through 4.5 of this standard and the requirements defined in Chapter 5 of NFPA 1001 or Chapters 5 and 6 of NFPA 1081.

Δ **4.1.1** Identify marine vessel types and potential products transported given general information on the vessel types in the local response jurisdiction, awareness level information on products transported by marine vessels, AHJ policies and procedures, and overall scene safety considerations at marine incidents so that the scene of the incident and the hazards are recognized.

(A) Requisite Knowledge. Generalized marine vessel types; awareness level hazardous product information; general hazard classes of product and structural fire-fighting PPE compatibilities; policies and procedures associated with marine incident response.

(B) Requisite Skills. Reading comprehension and oral communication skills.

4.1.2 Define common marine vessel construction and terminology given vessel construction terminology, marine vessel terminology and general structural hazards associated with marine vessels so that Land-Based Fire Fighters have a working knowledge of general terms when communicating with marine vessel personnel.

(A) Requisite Knowledge. General knowledge of marine vessel construction, marine vessel terminology, structural hazards with marine vessels.

(B) Requisite Skills. Reading comprehension and oral communication skills.

4.1.3* Board a marine vessel, given a vessel, gangway, approved PPE, water survival techniques, approved hand tools and suppression equipment, and AHJ policies and procedures, so that Land-Based Fire Fighters are transferred to the vessel in a safe manner.

(A) Requisite Knowledge. Effect of vessel movement due to tide, wakes, currents, or other factors; effect of water depth; water survival techniques; and draft for gangways.

(B) Requisite Skills. Donning approved PPE; carrying tools and equipment in a proper and safe manner, climbing techniques for gangways.

4.1.4* Retrieve a vessel fire control plan and other specified documents from a cold zone on the vessel, given a vessel, an assignment, a vessel fire control plan and other documents, and any necessary equipment, so that the vessel fire control plan and documents are located and brought to the Incident Commander within the time specified by the AHJ.

(A) Requisite Knowledge. Location(s) on the vessel where the vessel fire control plan and other documents, such as dangerous cargo manifests, trim and stability documents, cargo-loading manuals where applicable, and crew and passenger lists are stored; vessel compartmentalization and associated mark-

ing; primary and alternative routes to reach the location(s) where the vessel fire control plan and other documents are stored; understanding of response personnel utilization of the vessel fire control plan; location of the command post.

(B) Requisite Skills. Boarding and negotiating or traveling through the vessel; recognition of the vessel fire control plan and other types of documents.

4.2 Access. This duty involves making safe access to the vessel and safe egress from the vessel.

4.2.1 Identify a specified location on a vessel, given a vessel fire control plan and an assignment, so that the assignment is completed and reported.

(A) Requisite Knowledge. Vessel construction, including maritime terminology (e.g., bow, stern, port, starboard); unique hazards associated with various location in a vessel; terminology and symbols used on a vessel fire control plan.

(B) Requisite Skills. Negotiating vessel ladders, decks, and corridors; operating vessel doors and hatches.

4.2.2 Identify onboard vessel fixed fire suppression systems as a member of a team, given an incident, an assignment, standard operating procedures, and communications equipment, so that the system is activated or shut down when information is requested by the Incident Commander.

(A) Requisite Knowledge. Types of fixed suppression systems found on vessels; appropriate times to activate fixed suppression systems on vessels; hazards associated with operating fixed suppression systems and agents.

(B) Requisite Skills. Recognizing fire suppression system controls; operating communications equipment located at the fire suppression system control room; understanding vital precautions to be taken as a fire team member after fire suppression systems have been activated.

4.3 Response. This duty involves connecting to the water supply for fire-fighting operations, establishing effective incident communications, and protecting exposures.

4.3.1 Establish connections for the water supply at an incident, given international shore connections, so that an uninterrupted supply of water is established and all hoses are connected and positioned according to procedures and in coordination with the ship's crew.

(A) Requisite Knowledge. International shore connection.

(B) Requisite Skills. Ability to recognize and use an international shore connection.

4.3.2 Protect an exposure on a vessel as a member of a team, given an assignment, an exposure, a water supply source, approved PPE, fire hose, nozzles, and equipment, so that the exposure is protected.

(A) Requisite Knowledge. Environment, vessel construction, and fire behavior aboard vessel.

(B) Requisite Skills. Participating as part of a team to protect exposures, operating handlines, and master streams.

4.3.3 Access a fire compartment as a member of a team, given a vessel, an incident, and an assignment, so that vessel integrity is maintained, doors and hatches are opened, tools are used, barriers are removed, and the opening is made ready for entry.

(A) Requisite Knowledge. Construction and normal operation of vessel doors and hatches; safety procedures for securing vessel doors and hatches to prevent them from closing behind fire fighters; desired entry methods for various tactical operations, including ventilation, observation, dewatering, and agent application.

(B) Requisite Skills. Identifying and operating vessel doors and hatches.

4.3.4 Collect and report vessel stability information, given a vessel, an incident, an assignment, measuring devices, and standard operating procedures, so that any current or potential hazards to stability are recognized and reported according to procedures.

(A) Requisite Knowledge. Effect of tide, wakes/waves, currents, fire-fighting operations, vessel stability; procedures for reporting the information; vessel draft marking systems.

(B) Requisite Skills. Visualizing the position of a vessel; using internal and external measuring devices or procedures.

4.4 Communications. This duty involves using marine facility and vessel communications equipment to receive and relay verbal information at an incident.

4.4.1 Transmit and receive messages via marine facility and vessel communications equipment, given marine facility and vessel communications equipment and standard operating procedures, so that the information is accurate, complete, clear, and relayed within the time established by the AHJ.

(A) Requisite Knowledge. Marine communications terminology and procedures; proper marine radio frequencies to be used; types and capabilities of vessel communications systems; methods for overcoming language barriers.

(B) Requisite Skills. Operating marine facility and vessel communications systems; operating marine radios.

4.4.2 Locate a marine facility or vessel representative, given a marine facility or vessel and an assignment, so that a line of communication is established between the fire department and the facility or vessel representatives.

(A)* Requisite Knowledge. Locations on a vessel where the ship's master, mate, engineer, or ship's agent can be located; marine frequencies monitored by the vessel master; locations where facility representatives are normally located; methods for contacting representatives after normal working hours.

(B) Requisite Skills. Operating marine facility and vessel communications equipment; boarding the vessel; negotiating or traveling through the facility or vessel.

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4.4.3 Transmit and receive messages to vessel personnel and other agencies responding to an incident, given an incident, a list of the other agencies responding to the incident, communications equipment, and standard operating procedures, so that the information is accurate, complete, clear, and relayed within the time established by the AHJ.

(A) Requisite Knowledge. Marine communications terminology and procedures; proper marine radio frequencies to be used; land-based frequencies used in mutual aid situations; other agencies that respond to marine incidents.

(B) Requisite Skills. Operating vessel and mobile communications systems, marine radios, and fire department communications equipment.

4.4.4 Control access to a vessel, given a vessel, an incident, an accountability system, an incident management system, and response personnel, so that all emergency responders boarding the vessel are noted and accounted for.

(A) Requisite Knowledge. The accountability systems used by the AHJ; knowledge of personnel who are authorized to operate at a marine incident.

(B) Requisite Skills. Using accountability tactical worksheets.

4.4.5 Evacuate a vessel or exposure, given an occupied vessel or exposure, an incident, an accountability system, an incident management system, and response personnel, so that all personnel are removed from the hazard area to an area of refuge.

(A) Requisite Knowledge. Vessel evacuation and accountability procedures used by the AHJ.

(B) Requisite Skills. Controlling, directing and moving passengers and crew.

4.5 Fire Control. This duty involves the control and extinguishment of fires on vessels, including fire attack, ventilation, reconnaissance operations, dewatering operations, and rescue of vessel occupants.

4.5.1 Ventilate smoke from a vessel as a member of a team, given a vessel, an incident, an assignment, approved PPE, ventilation equipment, and standard operating procedures, so that equipment is positioned for ventilation, vessel integrity is maintained, a specified ventilation opening is created and left unobstructed, and ventilation barriers are removed.

(A) Requisite Knowledge. Construction principles of a vessel that affect ventilation operations; principles, advantages, limitations, and effects of horizontal, vertical, natural, and forced ventilation; safety considerations when venting a vessel; signs, causes, effects, and prevention of backdrafts; methods of heat transfer and principles of thermal layering on vessels; effects of vessel construction on fire behavior and heat transfer.

(B) Requisite Skills. Transporting, deploying, and operating ventilation equipment on a vessel.

4.5.2 Monitor fire conditions on a vessel as a member of a team, given a vessel, an assignment, an incident, approved PPE, a hose or safety line, a thermal imaging camera, and communications equipment, so that vessel integrity is maintained and changes to fire conditions are reported to the Incident Commander.

(A) Requisite Knowledge. Fire behavior on vessels; procedures for operating a thermal imaging camera; safety procedures for operating in or near fire compartments on vessels.

(B) Requisite Skills. Negotiating vessel ladders, stairs, corridors, and decks; operating in high heat and vision-obscured areas utilizing a thermal imaging camera.

4.5.3 Remove water from a vessel as a member of a team, given a vessel containing water, an assignment, dewatering equipment, and approved PPE, so that hazards are identified, water is removed, and vessel stability is maintained.

(A) Requisite Knowledge. Safety precautions to be taken when working in water; hazards associated with water collecting in various areas of a vessel; hazards associated with water removal in a vessel.

(B) Requisite Skills. Deploying and operating dewatering equipment.

4.5.4* Attack a fire on a vessel as a member of a team, given a vessel, an incident, an assignment, an attack line, a secondary line, approved PPE, and tools and equipment, so that vessel integrity is maintained, attack line is deployed, access is gained to the fire compartment, effective water application practices are used, and fire is extinguished and overhauled.

(A) Requisite Knowledge. Precautions to be followed when advancing hose lines to a fire on a vessel; principles of exposure protection; types of fuels found on a vessel; types and application of attack lines used on vessels; effective application of fire streams.

(B) Requisite Skills. Advancing charged and uncharged hose lines up and down vessel ladders and stairs, through corridors, and across decks; operating fire streams; and advancing multiple hose lines for fire attack.

4.5.5 Conduct a search and rescue operation for a missing person on a vessel as a member of a team, given a vessel, an incident, an assignment, a vessel fire control plan or other documents, a person, approved PPE, forcible entry tools, and other equipment, so that areas where the person could be located are searched, the person is located and removed, and vessel integrity is maintained.

(A) Requisite Knowledge. Psychological effects of operating in obscured-vision conditions; methods to determine if the area is tenable; primary and secondary search techniques; victim removal methods; likely locations of passengers, crew members, shipyard workers, and contractors; location and use of emergency escape breathing devices (EEBDs).

(B) Requisite Skills. Using forcible entry tools; using self-contained breathing apparatus (SCBA); accessing remote or enclosed compartments; advancing charged and uncharged hose lines up and down vessel ladders and stairs, through corridors, and across decks; and removing victims.

4.5.6 Assist in deploying extinguishing agents other than water, given a vessel, an incident, an assignment, approved PPE, select extinguishing agents, and agent application equipment, so that the need is identified and communicated to the Incident Commander and agent is applied.

(A) Requisite Knowledge. Appropriate extinguishing agents; effects of various extinguishing agents; hazards associated with various extinguishing agents, including onboard systems; sources of bulk extinguishing agents.

(B) Requisite Skills. Reading cargo manifests and technical information on extinguishing agents, deploying and operating extinguishing equipment and agents.

Annex A Explanatory Material

Annex A is not a part of the requirements of this NFPA document but is included for informational purposes only. This annex contains explanatory material, numbered to correspond with the applicable text paragraphs.

A.1.2 The committee believes that this document specifies the minimum job performance requirements for Marine Fire Fighting for Land-Based Fire Fighters. The committee recognizes that emergency services organizations might have to invest considerable resources to provide the equipment and training needed to perform safely and efficiently. The committee does not mean to imply that organizations with limited resources cannot provide response services, only that the individuals charged with performing responsibilities are qualified to specific levels according to this standard.

A.1.2.3 Organization/management responsibilities should be addressed by the agency that personnel represent. The authority having jurisdiction should define the agency requirements for progression to positions of management responsibility.

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A.1.2.6 The committee recognizes the importance of formal and continuing education and training programs to ensure Marine Fire Fighting for Land-Based Fire Fighters has maintained and updated the necessary skills and knowledge for the level of qualification. Continuing education and training programs can be developed or administered by local, state, provincial, or federal agencies as well as professional associations and accredited institutions of higher education. The methods of learning would include areas of technology, refresher training, skills practices, and knowledge application to standards. The subject matter should directly relate to the requirements of this standard.

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A.1.3.3 It is recommended, where practical, that evaluators be individuals who were not directly involved as instructors for the requirement being evaluated.

A.3.2.1 Approved. The National Fire Protection Association does not approve, inspect, or certify any installations, procedures, equipment, or materials; nor does it approve or evaluate testing laboratories. In determining the acceptability of installations, procedures, equipment, or materials, the authority having jurisdiction may base acceptance on compliance with NFPA or other appropriate standards. In the absence of such standards, said authority may require evidence of proper installation, procedure, or use. The authority having jurisdiction may also refer to the listings or labeling practices of an organization that is concerned with product evaluations and is thus in a position to determine compliance with appropriate standards for the current production of listed items.

A.3.2.2 Authority Having Jurisdiction (AHJ). The phrase "authority having jurisdiction," or its acronym AHJ, is used in NFPA documents in a broad manner, since jurisdictions and approval agencies vary, as do their responsibilities. Where public safety is primary, the authority having jurisdiction may be a federal, state, local, or other regional department or individual such as a fire chief; fire marshal; chief of a fire prevention bureau, labor department, or health department; building official; electrical inspector; or others having statutory authority. For insurance purposes, an insurance inspection department, rating bureau, or other insurance company representative may be the authority having jurisdiction. In many circumstances, the property owner or his or her designated agent assumes the role of the authority having jurisdiction; at government installations, the commanding officer or departmental official may be the authority having jurisdiction.

A.3.2.3 Listed. The means for identifying listed equipment may vary for each organization concerned with product evaluation; some organizations do not recognize equipment as listed unless it is also labeled. The authority having jurisdiction should utilize the system employed by the listing organization to identify a listed product.

A.3.3.4.1 Cold Zone. Personnel operating in the cold zone are not exposed to the products of combustion, hazardous materials, or other inherent hazards created by the incident.

A.4.1.3 The intent of the committee is to define water survival as the ability to survive in the water in approved PPE.

N **A.4.1.4** The vessel's captain or their designated representative should be tasked with ensuring these documents are provided to fire officials on the pier or wharf. Marine vessels will have a prepared package already at the entry control point with the sentry or quarterdeck watch to make this a simplified process.

A.4.4.2(A) The importance of having crew members present, especially the Captain or First Officer, and Chief Engineer, cannot be overemphasized. These professionals and the other crew members know the layout of the vessel, the critical points of stability, and how to secure/activate ships' systems. They are an excellent resource for the IC and not to be ignored.

A.4.5.4 It is known that during overhaul, many fire fighters remove their respiratory protective equipment and as a result, expose themselves to probable contamination by carcinogens, toxic substances, etc. Respiratory protective equipment should be worn during overhaul and all PPE should be washed down after exposures in any incident involving fire.

Annex B Explanation of the Professional Qualifications Standards and Concepts of JPRs

This annex is not a part of the requirements of this NFPA document but is included for informational purposes only.

Δ **B.1 Explanation of the Professional Qualifications Standards and Concepts of Job Performance Requirements (JPRs).** The primary benefit of establishing national professional qualifications standards is to provide both public and private sectors with a framework of the job requirements for emergency services personnel. Other benefits include enhancement of the profession, individual as well as organizational growth and development, and standardization of practices.

NFPA professional qualifications standards identify the minimum job performance requirements (JPRs) for specific emergency services levels and positions. The standards can be used for training design and evaluation; certification; measuring and critiquing on-the-job performance; defining hiring practices; job descriptions; and setting organizational policies, procedures, and goals.

Professional qualifications standards for specific jobs are organized by major areas of responsibility defined as "duties." For example, the fire fighter's duties might include fire department communications, fireground operations, and preparedness and maintenance, whereas the fire and life safety educator's duties might include education and implementation, planning and development, and evaluation. Duties are major functional areas of responsibility within a specific job.

The professional qualifications standards are written as JPRs. JPRs describe the performance required for a specific job and are grouped according to the duties of the job. The complete list of JPRs for each duty defines what an individual must be able to do in order to perform and achieve that duty.

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N B.2 The Parts of a JPR.

N B.2.1 Critical Components. The JPR comprises three critical components, which are as follows:

(1) Task to be performed, partial description using an action verb
(2) Tools, equipment, or materials that are to be provided to complete the task
(3) Evaluation parameters and performance outcomes

Table B.2.1 gives an example of the critical components of a JPR.

N B.2.1.1 The Task to Be Performed. The first component is a concise statement of what the person is required to do. A significant aspect of that phrase is the use of an action verb, which sets the expectation for what is to be accomplished.

N B.2.1.2 Tools, Equipment, or Materials That Must Be Provided for Successful Completion of the Task. This component ensures that all individuals completing the task are given the same tools, equipment, or materials when they are being evaluated. Both the individual and the evaluator will know what will be provided in order for the individual to complete the task.

N B.2.1.3 Evaluation Parameters and Performance Outcomes. This component defines — for both the performer and the evaluator — how well the individual should perform each task. The JPR guides performance toward successful completion by identifying evaluation parameters and performance outcomes. This portion of the JPR promotes consistency in evaluation by reducing the variables used to gauge performance.

N B.2.2 Requisite Knowledge and Skills. In addition to these three components, the JPR describes requisite knowledge and skills. As the term *requisite* suggests, these are the necessary knowledge and skills the individual should have prior to being able to perform the task. Requisite knowledge and skills are the foundation for task performance.

N B.2.3 Examples. With the components and requisites combined, a JPR might read similar to the following two examples.

N B.2.3.1 Example: Fire Fighter I. Perform overhaul at a fire scene, given approved PPE, attack line, hand tools, flashlight, and an assignment, so that structural integrity is not compromised, all hidden fires are discovered, fire cause evidence is preserved, and the fire is extinguished.

Table B.2.1 Example of a JPR

(1) Task to be performed	(1) Perform overhaul at a fire scene,
(2) Tools, equipment, or materials	(2) given approved PPE, attack line, hand tools, flashlight, and an assignment,
(3) Evaluation parameters and performance outcomes	(3) so that structural integrity is not compromised, all hidden fires are discovered, fire cause evidence is preserved, and the fire is extinguished.

***N* (A) Requisite Knowledge.** Knowledge of types of fire attack lines and water application devices for overhaul, water application methods for extinguishment that limit water damage, types of tools and methods used to expose hidden fire, dangers associated with overhaul, signs of area of origin or signs of arson, and reasons for protection of fire scene.

***N* (B) Requisite Skills.** The ability to deploy and operate an attack line; remove flooring, ceiling, and wall components to expose void spaces without compromising structural integrity; apply water for maximum effectiveness; expose and extinguish hidden fires in walls, ceilings, and subfloor spaces; recognize and preserve signs of area of origin and arson; and evaluate for complete extinguishment.

N B.2.3.2 Example: Fire and Life Safety Educator II. Prepare a written budget proposal for a specific program or activity, given budgetary guidelines, program needs, and delivery expense projections, so that all guidelines are followed and the budget identifies all program needs.

***N* (A) Requisite Knowledge.** Knowledge of budgetary process; governmental accounting procedures; federal, tribal, state, and local laws; organizational bidding process; and organization purchase requests.

***N* (B) Requisite Skills.** The ability to estimate project costs; complete budget forms; requisition/purchase orders; collect, organize, and format budgetary information; complete program budget proposal; and complete purchase requests.

N B.3 Potential Uses for JPRs.

N B.3.1 Certification. JPRs can be used to establish the evaluation criteria for certification at a specific job level. When used for certification, evaluation should be based on the successful completion of the JPRs.

The evaluator would verify the attainment of requisite knowledge and skills prior to JPRs evaluation. Verification could be through documentation review or testing.

The individual seeking certification would be evaluated on completion of the JPRs. The individual would perform the task and be evaluated based on the evaluation parameters and performance outcomes. This performance-based evaluation is based on practical exercises for psychomotor skills and written examinations for cognitive skills.

Psychomotor skills are those physical skills that can be demonstrated or observed. Cognitive skills cannot be observed but rather are evaluated on how an individual completes the task (process-oriented) or on the task outcome (product-oriented).

Performance evaluation requires that individuals be given the tools, equipment, or materials listed in the JPR in order to complete the task.

N B.3.2 Curriculum Development and Training Design and Evaluation. The statements contained in this document that refer to job performance were designed and written as JPRs. Although a resemblance to instructional objectives might be present, these statements should not be used in a teaching

situation until after they have been modified for instructional use.

JPRs state the behaviors required to perform specific skills on the job, as opposed to a learning situation. These statements should be converted into instructional objectives with behaviors, conditions, and degree to be measured within the educational environment.

While the differences between JPRs and instructional objectives are subtle in appearance, their purposes differ. JPRs state what is necessary to perform the job in practical and actual experience. Instructional objectives, on the other hand, are used to identify what students must do at the end of a training session and are stated in behavioral terms that are measurable in the training environment.

By converting JPRs into instructional objectives, instructors would be able to clarify performance expectations and avoid confusion caused by the use of statements designed for purposes other than teaching. Instructors would be able to add jurisdictional elements of performance into the learning objectives as intended by the developers.

Requisite skills and knowledge could be converted into enabling objectives, which would help to define the course content. The course content would include each item of the requisite knowledge and skills ensuring that the course content supports the terminal objective.

N **B.3.2.1 Example: Converting a Fire Fighter I JPR into an Instructional Objective.** The instructional objectives are just two of several instructional objectives that would be written to support the terminal objective based on the JPR.

JPR: Perform overhaul at a fire scene, given approved PPE, attack line, hand tools, flashlight, and an assignment, so that structural integrity is not compromised, all hidden fires are discovered, fire cause evidence is preserved, and the fire is extinguished.

Instructional Objective (Cognitive): The Fire Fighter I will identify and describe five safety considerations associated with structural integrity compromise during overhaul as part of a written examination.

Instructional Objective (Psychomotor): The Fire Fighter I will demonstrate the designed use of tools and equipment during overhaul to locate and extinguish hidden fires without compromising structural integrity.

N **B.3.2.2 Example: Converting a Fire and Life Safety Educator II JPR into an Instructional Objective.** The instructional objectives are just two of several instructional objectives that would be written to support the terminal objective based on the JPR.

JPR: Prepare a written budget proposal for a specific program or activity, given budgetary guidelines, program needs, and delivery expense projections, so that all guidelines are followed and the budget identifies all program needs.

Instructional Objective (Cognitive): The Fire and Life Safety Educator II will list and describe the bidding process for the purchase of a published program using budgetary guidelines, program needs, and the guidelines established by local organizational procedures as part of a written examination.

Instructional Objective (Psychomotor): The Fire and Life Safety Educator II will lead in the purchase of a specific fire and life safety educational program by following the bidding process to completion, using local organizational guidelines, including budgetary procedures, program needs, and delivery expense projections.

N **B.4 Other Uses for JPRs.** While the professional qualifications standards are used to establish minimum JPRs for qualification, they have been recognized as guides for the development of training and certification programs, as well as a number of other potential uses.

These areas might include the following:

(1) *Employee Evaluation/Performance Critiquing.* The professional qualifications standards can be used as a guide by both the supervisor and the employee during an evaluation. The JPRs for a specific job define tasks that are essential to perform on the job, as well as the evaluation criteria to measure completion of the tasks.

(2) *Establishing Hiring Criteria.* The professional qualifications standards can be helpful in a number of ways to further the establishment of hiring criteria. The authority having jurisdiction (AHJ) could simply require certification at a specific job level, for example, Fire Fighter I. The JPRs could also be used as the basis for pre-employment screening to establish essential minimal tasks and the related evaluation criteria. An added benefit is that individuals interested in employment can work toward the minimal hiring criteria at local colleges.

(3) *Employee Development.* The professional qualifications standards can be practical for both the employee and the employer in developing a plan for the employee's growth within the organization. The JPRs and the associated requisite knowledge and skills can be used as a guide to determine additional training and education required for the employee to master the job or profession.

(4) *Succession Planning.* Succession planning addresses the efficient placement of individuals into jobs in response to current needs and anticipated future needs. A career development path can be established for targeted employees to prepare them for growth within the organization. The JPRs and requisite knowledge and skills could then be used to develop an educational path to aid in the employee's advancement within the organization or profession.

(5) *Establishing Organizational Policies, Procedures, and Goals.* The professional qualifications standards can be functional for incorporating policies, procedures, and goals into the organization or agency.

N **B.5 Bibliography.**

Annett, J., and N. E. Stanton, *Task Analysis.* London and New York: Taylor and Francis, 2000.

Brannick, M. T., and E. L. Levine, *Job Analysis: Methods, Research, and Applications for Human Resource Management in the New Millennium.* Thousand Oaks, CA: Sage Publications, 2002.

Dubois, D. D., *Competency-Based Performance Improvement: A Strategy for Organizational Change.* Amherst, MA: HRD Press, 1999.

Fine, S. A., and S. F. Cronshaw, *Functional Job Analysis: A Foundation for Human Resources Management (Applied Psychology Series).* Mahwah, NJ: Lawrence Erlbaum Associates, 1999.

Gupta, K., C. M. Sleezer (editor), and D. F. Russ-Eft (editor), *A Practical Guide to Needs Assessment*. San Francisco: Jossey-Bass/Pfeiffer, 2007.

Hartley, D. E., *Job Analysis at the Speed of Reality*. Amherst, MA: HRD Press, 1999.

Hodell, C., *ISD from the Ground Up: A No-Nonsense Approach to Instructional Design*, 3rd edition. Alexandria, VA: American Society for Training & Development, 2011.

Jonassen, D. H., M. Tessmer, and W. H. Hannum, *Task Analysis Methods for Instructional Design*. Mahwah, NJ: Lawrence Erlbaum Associates, 1999.

McArdle, G., *Conducting a Needs Analysis* (Fifty-Minute Book). Boston: Crisp Learning, 1998.

McCain, D. V., *Creating Training Courses (When You're Not a Trainer)*. Alexandria, VA: American Society for Training & Development, 1999.

NFPA 1001, *Standard for Fire Fighter Professional Qualifications*, 2013 edition.

NFPA 1035, *Standard on Fire and Life Safety Educator, Public Information Officer, Youth Firesetter Intervention Specialist, and Youth Firesetter Program Manager Professional Qualifications*, 2015 edition.

Phillips, J. J., *In Action: Performance Analysis and Consulting*. Alexandria, VA: American Society for Training & Development, 2000.

Phillips, J. J., and E. F. Holton III, *In Action: Conducting Needs Assessment*. Alexandria, VA: American Society for Training & Development, 1995.

Robinson, D. G., and J. C. Robinson (Eds.), *Moving from Training to Performance: A Practical Guidebook*. Alexandria, VA: American Society for Training & Development; San Francisco: Berett-Koehler, 1998.

Schippmann, J. S., *Strategic Job Modeling: Working at the Core of Integrated Human Resources*. Mahwah, NJ: Lawrence Erlbaum Associates, 1999.

Shepherd, A., *Hierarchical Task Analysis*. London and New York: Taylor and Francis, 2000.

Zemke, R., and T. Kramlinger, *Figuring Things Out: A Trainer's Guide to Needs and Task Analysis*. New York: Perseus Books, 1993.

N Annex C Overview of JPRs for Emergency Response Personnel Who Respond to Marine Incidents as a Land-Based Fire Fighter

This annex is not a part of the requirements of this NFPA document but is included for informational purposes only.

N **C.1 Emergency Response Personnel Who Respond to Marine Incidents as a Land-Based Fire Fighter.** The matrices shown in Table C.1 are included to provide the user of this standard with an overview of the JPRs and the progression of the various levels found in this document. They are intended to assist the user of this document with the implementation of the requirements and the development of training programs using the JPRs.

N Table C.1 Overview of JPRs for Emergency Response Personnel Who Respond to Marine Incidents as a Land-Based Fire Fighter

4.1 General Requirements. To meet the requirements for Marine Fire Fighter, the Fire Fighter II shall meet the JPRs in Sections 4.1 through 4.5.6 of this standard and the requirements defined in Chapter 5 of NFPA 1001 or Chapters 5 and 6 of NFPA 1081.	**4.1.1** Identify marine vessel types and potential products transported given general information on the vessel types in the local response jurisdiction, awareness level information on products transported by marine vessels, AHJ policies and procedures, and overall scene safety considerations at marine incidents so that the scene of the incident and the hazards are recognized.
	4.1.2 Define common marine vessel construction and terminology given vessel construction terminology, marine vessel terminology and general structural hazards associated with marine vessels so that Land-Based Fire Fighters have a working knowledge of general terms when communicating with marine vessel personnel.
	4.1.3 Board a marine vessel, given a vessel, gangway, approved PPE, water survival techniques, approved hand tools and suppression equipment, and AHJ policies and procedures, so that Land-Based Fire Fighters are transferred to the vessel in a safe manner.
	4.1.4 Retrieve a vessel fire control plan and other specified documents from a cold zone on the vessel, given a vessel, an assignment, a vessel fire control plan and other documents, and any necessary equipment, so that the vessel fire control plan and documents are located and brought to the Incident Commander within the time specified by the AHJ.
4.2 Access. This duty involves making safe access to the vessel.	**4.2.1** Identify a specified location on a vessel, given a vessel fire control plan and an assignment, so that the assignment is completed and reported.
	4.2.2 Identify onboard vessel fixed fire suppression systems as a member of a team, given an incident, an assignment, standard operating procedures, and communications equipment, so that the system is activated or shut down when information is requested by the Incident Commander.
4.3 Response. This duty involves connecting to the water supply for fire-fighting operations, establishing effective incident communications, and protecting exposures.	**4.3.1** Establish connections for the water supply at an incident, given international shore connections, so that an uninterrupted supply of water is established and all hoses are connected and positioned according to procedures and in coordination with the ship's crew.
	4.3.2 Protect an exposure on a vessel as a member of a team, given an assignment, an exposure, a water supply source, approved PPE, fire hose, nozzles, and equipment, so that the exposure is protected.
	4.3.3 Access a fire compartment as a member of a team, given a vessel, an incident, and an assignment, so that vessel integrity is maintained, doors and hatches are opened, tools are used, barriers are removed, and the opening is made ready for entry.
	4.3.4 Collect and report vessel stability information, given a vessel, an incident, an assignment, measuring devices, and standard operating procedures, so that any current or potential hazards to stability are recognized and reported according to procedures.
4.4 Communications. This duty involves using marine facility and vessel communications equipment to receive and relay verbal information at an incident.	**4.4.1** Transmit and receive messages via marine facility and vessel communications equipment, given marine facility and vessel communications equipment and standard operating procedures, so that the information is accurate, complete, clear, and relayed within the time established by the AHJ.

(continues)

N **Table C.1** *Continued*

	4.4.2 Locate a marine facility or vessel representative, given a marine facility or vessel and an assignment, so that a line of communication is established between the fire department and the facility or vessel representatives.
	4.4.3 Transmit and receive messages to vessel personnel and other agencies responding to an incident, given an incident, a list of the other agencies responding to the incident, communications equipment, and standard operating procedures, so that the information is accurate, complete, clear, and relayed within the time established by the AHJ.
	4.4.4 Control access to a vessel, given a vessel, an incident, an accountability system, an incident management system, and response personnel, so that all emergency responders boarding the vessel are noted and accounted for.
	4.4.5 Evacuate a vessel or exposure, given an occupied vessel or exposure, an incident, an accountability system, an incident management system, and response personnel, so that all personnel are removed from the hazard area to an area of refuge.
4.5 Fire Control. This duty involves the control and extinguishment of fires on vessels, including fire attack, ventilation, reconnaissance operations, dewatering operations, and rescue of vessel occupants.	**4.5.1** Ventilate smoke from a vessel as a member of a team, given a vessel, an incident, an assignment, approved PPE, ventilation equipment, and standard operating procedures, so that equipment is positioned for ventilation, vessel integrity is maintained, a specified ventilation opening is created and left unobstructed, and ventilation barriers are removed.
	4.5.2 Monitor fire conditions on a vessel as a member of a team, given a vessel, an assignment, an incident, approved PPE, a hose or safety line, a thermal imaging camera, and communications equipment, so that vessel integrity is maintained and changes to fire conditions are reported to the Incident Commander.
	4.5.3 Remove water from a vessel as a member of a team, given a vessel containing water, an assignment, dewatering equipment, and approved PPE, so that hazards are identified, water is removed, and vessel stability is maintained.
	4.5.4 Attack a fire on a vessel as a member of a team, given a vessel, an incident, an assignment, an attack line, a secondary line, approved PPE, and tools and equipment, so that vessel integrity is maintained, attack line is deployed, access is gained to the fire compartment, effective water application practices are used, and fire is extinguished and overhauled.
	4.5.5 Conduct a search and rescue operation for a missing person on a vessel as a member of a team, given a vessel, an incident, an assignment, a vessel fire control plan or other documents, a person, approved PPE, forcible entry tools, and other equipment, so that areas where the person could be located are searched, the person is located and removed, and vessel integrity is maintained.
	4.5.6 Assist in deploying extinguishing agents other than water, given a vessel, an incident, an assignment, approved PPE, select extinguishing agents, and agent application equipment, so that the need is identified and communicated to the Incident Commander and agent is applied.

N Annex D National Fallen Firefighters Foundation (NFFF)

This annex is not a part of the requirements of this NFPA document but is included for informational purposes only.

N **D.1 "16 Firefighter Life Safety Initiatives."** In 2004, the National Fallen Firefighters Foundation (NFFF) held an unprecedented gathering of the fire service leadership when more than 200 individuals assembled in Tampa, Florida, to focus on the troubling question of how to prevent line-of-duty deaths and injuries. Every year approximately 100 fire fighters lose their lives in the line of duty in the United States — about 1 every 80 hours. Every identifiable segment of the fire service was represented and participated in the summit.

The first Firefighter Life Safety Summit marked a significant milestone, because it not only gathered all segments of the fire service behind a common goal, but it also developed the "16 Firefighter Life Safety Initiatives." The summit attendees agreed that the "16 Firefighter Life Safety Initiatives" serve as a blueprint to reduce line-of-duty deaths and injuries. In 2014, a second Life Safety Summit was held and more than 300 fire service leaders gathered. At the second Firefighter Life Safety Summit, the "16 Firefighter Life Safety Initiatives" were reaffirmed as being relevant to reduce line-of-duty deaths and injuries.

N **D.2 NFFF's "16 Firefighter Life Safety Initiatives."**

(1) Define and advocate the need for a cultural change within the fire service relating to safety, incorporating leadership, management, supervision, accountability, and personal responsibility.
(2) Enhance the personal and organizational accountability for health and safety throughout the fire service.
(3) Focus greater attention on the integration of risk management with incident management at all levels, including strategic, tactical, and planning responsibilities.
(4) All fire fighters must be empowered to stop unsafe practices.
(5) Develop and implement national standards for training, qualifications, and certification (including regular recertification) that are equally applicable to all fire fighters based on the duties they are expected to perform.
(6) Develop and implement national medical and physical fitness standards that are equally applicable to all fire fighters, based on the duties they are expected to perform.
(7) Create a national research agenda and data collection system that relates to the initiatives.
(8) Utilize available technology wherever it can produce higher levels of health and safety.
(9) Thoroughly investigate all fire fighter fatalities, injuries, and near misses.
(10) Grant programs should support the implementation of safe practices and/or mandate safe practices as an eligibility requirement.
(11) National standards for emergency response policies and procedures should be developed and championed.
(12) National protocols for response to violent incidents should be developed and championed.
(13) Fire fighters and their families must have access to counseling and psychological support.
(14) Public education must receive more resources and be championed as a critical fire and life safety program.
(15) Advocacy must be strengthened for the enforcement of codes and the installation of home fire sprinklers.
(16) Safety must be a primary consideration in the design of apparatus and equipment.

Annex E Informational References

N **E.1 Referenced Publications.** The documents or portions thereof listed in this annex are referenced within the informational sections of this standard and are not part of the requirements of this document unless also listed in Chapter 2 for other reasons.

N **E.1.1 NFPA Publications.** National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471.

NFPA 1001, *Standard for Fire Fighter Professional Qualifications*, 2019 edition.

NFPA 1081, *Standard for Facility Fire Brigade Member Professional Qualifications*, 2018 edition.

N **E.2 Informational References. (Reserved)**

N **E.3 Annex B Bibliography.**

Annett, J., and N. E. Stanton, *Task Analysis*. London and New York: Taylor and Francis, 2000.

Brannick, M. T., and E. L. Levine, *Job Analysis: Methods, Research, and Applications for Human Resource Management in the New Millennium*. Thousand Oaks, CA: Sage Publications, 2002.

Dubois, D. D., *Competency-Based Performance Improvement: A Strategy for Organizational Change*. Amherst, MA: HRD Press, 1999.

Fine, S. A., and S. F. Cronshaw, *Functional Job Analysis: A Foundation for Human Resources Management (Applied Psychology Series)*. Mahwah, NJ: Lawrence Erlbaum Associates, 1999.

Gupta, K., C. M. Sleezer (editor), and D. F. Russ-Eft (editor), *A Practical Guide to Needs Assessment*. San Francisco: Jossey-Bass/Pfeiffer, 2007.

Hartley, D. E., *Job Analysis at the Speed of Reality*. Amherst, MA: HRD Press, 1999.

Hodell, C., *ISD from the Ground Up: A No-Nonsense Approach to Instructional Design*, 3rd edition. Alexandria, VA: American Society for Training & Development, 2011.

Jonassen, D. H., M. Tessmer, and W. H. Hannum, *Task Analysis Methods for Instructional Design*. Mahwah, NJ: Lawrence Erlbaum Associates, 1999.

McArdle, G., *Conducting a Needs Analysis* (Fifty-Minute Book). Boston: Crisp Learning, 1998.

McCain, D. V., *Creating Training Courses (When You're Not a Trainer)*. Alexandria, VA: American Society for Training & Development, 1999.

NFPA 1001, *Standard for Fire Fighter Professional Qualifications*, 2018 edition.

NFPA 1035, *Standard on Fire and Life Safety Educator, Public Information Officer, Youth Firesetter Intervention Specialist, and Youth Firesetter Program Manager Professional Qualifications*, 2015 edition.

Phillips, J. J., *In Action: Performance Analysis and Consulting*. Alexandria, VA: American Society for Training & Development, 2000.

Phillips, J. J., and E. F. Holton III, *In Action: Conducting Needs Assessment*. Alexandria, VA: American Society for Training & Development, 1995.

Robinson, D. G., and J. C. Robinson (Eds.), *Moving from Training to Performance: A Practical Guidebook*. Alexandria, VA: American Society for Training & Development; San Francisco: Berett-Koehler, 1998.

Schippmann, J. S., *Strategic Job Modeling: Working at the Core of Integrated Human Resources*. Mahwah, NJ: Lawrence Erlbaum Associates, 1999.

Shepherd, A., *Hierarchical Task Analysis*. London and New York: Taylor and Francis, 2000.

Zemke, R., and T. Kramlinger, *Figuring Things Out: A Trainer's Guide to Needs and Task Analysis*. New York: Perseus Books, 1993.

N **E.4 References for Extracts in Informational Sections. (Reserved)**