# **NFPA 1051**

# Standard for Wildland Fire Fighter Professional Qualifications

# 2002 Edition



NFPA, 1 Batterymarch Park, PO Box 9101, Quincy, MA 02269-9101 An International Codes and Standards Organization

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## **NFPA 1051**

#### Standard for

# Wildland Fire Fighter Professional Qualifications

#### 2002 Edition

This edition of NFPA 1051, Standard for Wildland Fire Fighter Professional Qualifications, was prepared by the Technical Committee on Wildfire Suppression Professional Qualifications, released by the Technical Correlating Committee on Professional Qualifications, and acted on by NFPA at its November Association Technical Meeting held November 10–14, 2001, in Dallas, TX. It was issued by the Standards Council on January 11, 2002, with an effective date of January 31, 2002, and supersedes all previous editions.

This edition of NFPA 1051 was approved as an American National Standard on January 31, 2002.

# Origin and Development of NFPA 1051

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 upon 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.

In 1990, responsibility for the appointment of Professional Qualifications committees and the development of the Professional Qualifications Standards was assumed by NFPA.

The Correlating Committee on Professional Qualifications Standards was appointed by the NFPA Standards Council in 1990 and assumed the responsibility for coordinating the requirements of all of the Professional Qualifications documents. One of the first actions of the Technical Correlating Committee was to recommend that the Standards Council approve a proposed project to develop professional qualifications requirements for wildfire suppression personnel. This recommendation was approved and the Technical Committee on Wildfire Suppression Professional Qualifications was appointed in 1991.

The committee met regularly between 1991 and 1994. A job task analysis was conducted, and the resulting information was used to develop the job performance requirements contained in this document. Throughout the process liaison was maintained with national and state level organizations, including the National Wildfire Coordinating Group, to ensure that the document would be accurate and would correlate with work that those groups were sponsoring simultaneously.

The intent of the technical committee was to develop clear and concise job performance requirements that can be used to determine that an individual, when measured to the standard, possesses the skills and knowledge to perform as a wildland fire fighter. The committee further contends that these job performance requirements are applicable to all agencies that respond to wildland fires.

In the 2002 edition of this standard, the technical committee changed the purpose and scope statements and completely revised the document. NFPA 1051 now addresses the minimum job performance requirements for both suppression and pre-suppression activities. The committee removed the chapters for Wildland Fire Fighter III and Wildland Fire Fighter IV, and added chapters for Wildland Fire Officer I and Wildland Fire Officer II. The committee added chapters for Wildland/Urban Interface Coordinator and Wildland/Urban Interface Protection Specialist.

The committee also made changes in the document to bring it into conformance with the new NFPA *Manual of Style*.

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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.

# **Technical Committee on Wildfire Suppression Professional Qualifications**

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**Committee Scope:** This Committee shall have primary responsibility for documents on professional qualifications for personnel engaged in wildland fire management.

These lists represent the membership at the time the Committees were balloted on the final text of this edition. Since that time, changes in the membership may have occurred. A key to classifications is found at the back of the document.

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.

# In Memoriam, September 11, 2001

We pay tribute to the 343 members of FDNY who gave their lives to save civilian victims on September 11, 2001, at the World Trade Center. They are true American heroes in death, but they were also American heroes in life. We will keep them in our memory and in our hearts. They are the embodiment of courage, bravery, and dedication. May they rest in peace.

# Contents

Chapter	1 Administration	<b>1051</b> – 5	8.4	Mobilization 10	<b>51</b> –11
1.1	Scope	<b>1051</b> - 5	8.5	Suppression 10	<b>51</b> –11
1.2	Purpose	<b>1051</b> - 5			
1.3	Application	<b>1051-</b> 5	Chapter	9 Wildland/Urban Interface	
	•		0.4	Protection Specialist 10	
Chapter	2 Referenced Publications	<b>1051</b> - 5	9.1	General	
2.1	General	<b>1051-</b> 5	9.2	Human Resource Management 10	
2.2	NFPA Publications	<b>1051</b> - 5	9.3	Preparedness 10	
2.3	Other Publication	<b>1051</b> - 6	9.4	Mobilization 10	
			9.5	Suppression 10	
Chapter	3 Definitions	<b>1051</b> - 6	9.6	Post-Incident — Data Collection 10	<b>51</b> –12
3.1	General	<b>1051</b> - 6	CI.	10 1011 1/11 1 2 6	
3.2	NFPA Official Definitions	<b>1051</b> - 6	Chapter	10 Wildland/Urban Interface	NET 10
3.3	General Definitions	<b>1051-</b> 6	10.1	Coordinator	
			10.1	General	
Chapter	4 Entrance Requirements	1051- 7	10.2	Administration	
4.1	General	<b>1051</b> – 7	10.3	Human Resource Management	
4.2	Medical Requirements	<b>1051</b> – 7	10.4	Preparedness	
4.3	Physical Performance Requirements	<b>1051</b> - 7	10.5	Hazard Mitigation 10	
			10.6	Public Education 10	
Chapter	5 Wildland Fire Fighter I	1051- 7	10.7	Mobilization 10	
5.1	General	<b>1051</b> – 7	10.8	Suppression 10	
5.2	Human Resource Management	<b>1051</b> - 7	10.9	Post-Incident	<b>51–</b> 14
5.3	Preparedness	<b>1051</b> -8			
5.4	Mobilization	<b>1051</b> - 8	Annex A	Explanatory Material 10	<b>51–</b> 14
5.5	Suppression	<b>1051-</b> 8	Annex B	NWCG Publications for Wildland Fire	
				Suppression Personnel by NWCG	
Chapter	6 Wildland Fire Fighter II	<b>1051</b> - 8		and NFPA Job Levels	<b>51</b> –19
6.1	General	<b>1051</b> - 8		<b>y</b>	
6.2	Human Resource Management	<b>1051</b> -8	Annex C	Incident Command System Briefing 10	<b>51–</b> 21
6.3	Preparedness	<b>1051</b> - 9			
6.4	Mobilization	<b>1051</b> - 9	Annex D	Job Performance Requirements 10	<b>51–</b> 25
6.5	Suppression	<b>1051</b> - 9	Annoy F	Wildland/Urban Interface Protection	
	•		Aimex E	Specialist Task Book	151_99
Chapter	7 Wildland Fire Officer I			Specialist Task Book 10	31-40
7.1	General	<b>1051-</b> 9	Annex F	Wildland/Urban Interface Protection	
7.2	Human Resource Management	<b>1051</b> - 9		Specialist Kit Checklist 10	<b>51</b> –34
7.3	Preparedness	<b>1051–</b> 10		•	
7.4	Mobilization	<b>1051</b> –10	Annex G	Structure Protection Plan Outline 10	<b>51–</b> 34
7.5	Suppression	<b>1051</b> –10			
			Annex H	<u>.</u>	NET 07
Chapter	8 Wildland Fire Officer II	<b>1051</b> –11		(Field) Checklist	<b>51–</b> 36
8.1	General	<b>1051</b> –11	Anney I	Informational References 10	<b>51</b> _36
8.2	Human Resource Management	<b>1051</b> –11	Annica I	III O I I I I I I I I I I I I I I I I I	J1-J(
8.3	Preparedness	<b>1051</b> –11	Index		<b>51</b> –38

## NFPA 1051

#### Standard for

# Wildland Fire Fighter Professional Qualifications

## 2002 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.

Areference in brackets [] following a section or paragraph indicates material that has been extracted from another NFPA document. As an aid to the user, Annex I lists the complete title and edition of the source documents for both mandatory and nonmandatory extracts. Editorial changes to extracted material consist of revising references to an appropriate division in this document or the inclusion of the document number with the division number when the reference is to the original document. Requests for interpretations or revisions of extracted text shall be sent to the appropriate technical committee.

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

# Chapter 1 Administration

- 1.1\* Scope. This standard shall identify the minimum job performance requirements for wildland fire duties and responsibilities.
- **1.2 Purpose.** The intent of the standard shall be to define progressive levels of performance required for the identified levels of Wildland Fire Fighter I, Wildland Fire Fighter II, Wildland Fire Officer I, and Wildland Fire Officer II. The standard shall also include the positions of Wildland/Urban Interface Coordinator and Wildland/Urban Interface Protection Specialist. It shall not be the intent of this standard to restrict any jurisdiction from exceeding these minimum requirements.

# 1.3 Application.

- **1.3.1** The standard shall apply to personnel assigned to preparedness or suppression activities.
- **1.3.2** Each performance objective shall be performed safely, competently, and in its entirety.
- **1.3.3** It shall not be required that the job performance requirements be mastered in the order in which they appear. The local, state, provincial, tribal, or federal training programs shall establish the instructional priority and the training program content to prepare individuals to meet the job performance requirements of this standard.
- **1.3.4\*** Performance of each requirement of this standard shall be evaluated by individuals approved by the AHJ.
- **1.3.5** The entrance requirements of Chapter 4 shall be met prior to beginning training.
- **1.3.6** The Wildland Fire Fighter I shall meet all of the job performance requirements of Chapter 5 before being certified at that level.
- **1.3.7** The Wildland Fire Fighter I shall meet all of the job performance requirements of Chapter 6 before being certified at the Wildland Fire Fighter II level.

- **1.3.8** The Wildland Fire Fighter II shall meet all of the job performance requirements of Chapter 7 before being certified at the Wildland Fire Officer I level.
- **1.3.9** Wildland Fire Officer I shall meet all of the job performance requirements of Chapter 8 before being certified at the Wildland Fire Officer II level.
- **1.3.10** The Wildland Fire Officer II shall meet all of the job performance requirements of Chapter 9 before being certified at the Wildland/Urban Interface Protection Specialist level.
- **1.3.11** The Wildland/Urban Interface Protection Specialist shall meet all of the job performance requirements of Chapter 10 before being certified at the Wildland/Urban Interface Coordinator level.
- **1.3.12** Performance of each requirement shall be in accordance with applicable NFPA standards and occupational health and safety regulations.
- **1.3.13** Personnel involved in wildland fire suppression shall maintain physical fitness levels established by the AHJ.
- **1.3.14** Wildland fire suppression personnel at all levels shall operate within an incident management system as defined in NFPA 1561, *Standard on Emergency Services Incident Management System*, and adopted by the AHJ.
- 1.3.15 Wildland fire suppression personnel who operate mobile apparatus shall meet the requirements of NFPA 1002, Standard for Fire Apparatus Driver/Operator Professional Qualifications
- 1.3.16 All of the tasks shall be performed in accordance with the requirements of NFPA 295, Standard for Wildfire Control, and NFPA 1500, Standard on Fire Department Occupational Safety and Health Program.

# **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, P.O. Box 9101, Quincy, MA 02269-9101.

NFPA 295, Standard for Wildfire Control, 1998 edition.

NFPA 299, Standard for Protection of Life and Property from Wildfire, 1997 edition.

NFPA 472, Standard for Professional Competence of Responders to Hazardous Materials Incidents, 2002 edition.

NFPA 1002, Standard for Fire Apparatus Driver/Operator Professional Qualifications, 1998 edition.

NFPA 1035, Standard for Professional Qualifications for Public Fire and Life Safety Educator, 2000 edition.

NFPA 1051, Standard for Wildland Fire Fighter Professional Qualifications, 2002 edition.

NFPA 1500, Standard on Fire Department Occupational Safety and Health Program, 2002 edition.

NFPA 1561, Standard on Emergency Services Incident Management System, 2002 edition.

NFPA 1977, Standard on Protective Clothing and Equipment for Wildland Fire Fighting, 1998 edition.

## 2.3 Other Publication.

**2.3.1 NWCG Publication.** National Wildfire Coordinating Group, National Fire Equipment System Catalog Part 2, National Interagency Fire Center, Attn: Supply, 3833 S. Development Ave., Boise, ID 83705.

NWCG S-215, Fire Operations in the Urban Interface, 2000.

# **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 included, common usage of the terms shall apply.

#### 3.2 NFPA Official Definitions.

- **3.2.1\* Approved.** Acceptable to the authority having jurisdiction.
- **3.2.2\* Authority Having Jurisdiction (AHJ).** The organization, office, or individual responsible for approving equipment, materials, an installation, or a procedure.

#### 3.3 General Definitions.

- **3.3.1 Agency.** Any federal, tribal, provincial, state, or local entity that has legal authority to organize and direct a fire-fighting service.
- **3.3.2\* Breakover.** A fire edge that crosses a control line or natural barrier intended to confine the fire and the resultant fire.
- **3.3.3 Building Construction.** Types of construction based on the combustibility and the fire resistance rating of a building's structural elements.
- **3.3.4\* Burning Out.** Setting fire inside a control line to consume the fuel between the edge of the fire and the control line
- **3.3.5 Check-in.** The process whereby resources first report to an incident.
- **3.3.6 Confine.** To restrict the fire within determined boundaries established either prior to the fire or during the fire.
- **3.3.7 Contain.** To take suppression action that can reasonably be expected to check the fire spread under prevailing and predicted conditions.
- **3.3.8 Control.** The point in time when the perimeter spread of a wildland fire has been halted and can be reasonably expected to hold under foreseeable conditions.
- **3.3.9 Control Line.** All constructed or natural barriers and the treated fire edge used to control a fire.
- **3.3.10\* Defensible Space.** An area between an improved property and a potential wildland fire where the combustibles have been removed or modified.
- **3.3.11 Evacuation.** The temporary movement of people and their possessions from locations threatened by wildland fire. [299:3.1]
- **3.3.12 Evacuation Plan.** A plan specifying safe and effective methods for the temporary movement of people and their possessions from locations threatened by wildland fire.
- **3.3.13\* Extended Attack.** A wildland fire that cannot be controlled by initial attack resources within an established period

- of time as determined by the AHJ and additional fire-fighting resources are arriving, en route, or being ordered by the incident commander.
- **3.3.14 Fire Behavior.** The manner in which a fire reacts to the variables of fuels, weather, and topography.
- **3.3.15 Fire Department.** An organization providing rescue, fire suppression, and related activities. The term *fire department* shall include any public, governmental, private, industrial, or military organization that engages in this type of activity. [1001:3.1]
- **3.3.16 Fire Suppression.** All the work of confining and extinguishing wildland fires.
- **3.3.17 Fuel Modification.** Any manipulation or removal of fuels to reduce the likelihood of ignition or the resistance to fire control. [299:3.1]
- 3.3.18 Fuels. All combustible material.
- **3.3.19 Hazard.** A fuel complex defined by kind, arrangement, volume, condition, and location, that determines the ease of ignition and/or of resistance to fire control. [299:3.1]
- **3.3.20\* Hazard Assessment System.** A system to evaluate and rate pertinent factors such as fire and weather history, fuels, improvements, topography and access to develop and implement mitigation strategies.
- **3.3.21 Heavy Equipment.** Ground vehicles used in the suppression of wildland fires, such as dozers, tractors, plows, and their transport vehicles. Heavy equipment does not include fire apparatus.
- **3.3.22 Hot Spot.** A particularly active part of a wildland fire.
- **3.3.23** Improved Property. A piece of land or real estate upon which a structure has been placed, a marketable crop is growing (including timber), or other property improvement has been made. [299:3.1]
- **3.3.24 Incident.** An occurrence, either human-caused or a natural phenomenon, that requires action or support by emergency services personnel to prevent or minimize loss of life or damage to property and/or natural resources. [295:1-3]
- **3.3.25 Incident Action Plan.** A written or verbal plan stating the overall objectives, strategy, and specific tactics for a specified period of time.
- **3.3.26\* Incident Management System.** A system that defines the roles and responsibilities to be assumed by personnel and the operating procedures to be used in the management and direction of emergency incidents and other functions. [1561:1.3]
- **3.3.27\* Initial Attack.** An aggressive suppression action consistent with fire fighter and public safety and values to be protected.
- **3.3.28 Lookout.** A person designated to observe the fire or a portion of a fire and warn the crew when there is a change in fire activity or when there is danger of becoming trapped.
- **3.3.29 Mitigation.** Action that moderates the severity of a fire hazard or risk. [**299:**3.1]
- **3.3.30 Mop Up.** The act of making a fire safe after it is controlled, such as extinguishing or removing burning material

- along or near the control line, felling dead trees (snags), and trenching logs to prevent rolling.
- 3.3.31\* NWCG. National Wildland Fire Coordinating Group.
- **3.3.32 Out of Service.** Resources assigned to an incident but unable to respond for mechanical, rest, or personnel reasons.
- **3.3.33 Patrol.** To systematically observe and check a length of control line during or after its construction to prevent break-overs (slopovers), control spot fires, or extinguish overlooked hot spots.
- **3.3.34 Personal Protective Equipment.** The basic protective equipment for wildland fire suppression includes a helmet, protective footwear, gloves, and flame-resistant clothing as defined in NFPA 1977, Standard on Protective Clothing and Equipment for Wildland Fire Fighting.
- **3.3.35 Preparedness.** Activities that lead to a safe, efficient, and cost-effective fire management program in support of land and resource management objectives through appropriate planning and coordination.
- **3.3.36\* Prescribed Fire (Burning).** Any fire ignited by management actions to meet specific objectives.
- **3.3.37 Protection in Place.** The strategy and tactics used to protect or shelter people and/or animals from an advancing wildland fire in a safe area, as an alternative to evacuation.
- **3.3.38 Public Safety Element.** A section of a land use plan which describes the hazards to public safety and how they are to be mitigated.
- **3.3.39 Resources.** All personnel and major items of equipment that are available, or potentially available, for assignment to incidents.
- **3.3.40 Risk.** Chance of a fire starting from any cause.
- **3.3.41 Size Up.** The observation and evaluation of existing factors that are used to develop objectives, strategy, and tactics for fire suppression.
- **3.3.42\* Special Interest Area.** Areas established and managed for their unique special feature.
- **3.3.43 Strategy.** The general plan or direction selected to accomplish incident objectives.
- **3.3.44 Strike Team.** Specified combinations of the same kind and type of resources, with common communications and a leader
- **3.3.45\* Structure Protection.** To protect structures and other improvements from the threat of damage from an advancing wildland fire.
- **3.3.46 Structure Protection Plan.** A plan specifying safe and effective methods to protect structures and other improvements from the threat of damage from an advancing fire.
- **3.3.47 Tactics.** Deploying and directing resources on an incident to accomplish the objectives designated by strategy.
- **3.3.48 Task Force.** Any combination of single resources assembled for a particular tactical need, with common communications and a leader.
- **3.3.49 Topography.** The land surface configuration.
- **3.3.50 Wildland Fire.** An unplanned fire burning in vegetative fuels.

- **3.3.51 Wildland Fire Fighter I.** The person at the first level of progression who has demonstrated the knowledge and skills necessary to function safely as a member of a wildland fire suppression crew under direct supervision.
- **3.3.52\* Wildland Fire Fighter II.** The person at the second level of progression who has demonstrated the skills and depth of knowledge necessary to function under general supervision.
- **3.3.53 Wildland Fire Officer I.** The person responsible for supervising and directing a single wildland fire suppression resource, such as a hand crew or an engine.
- **3.3.54 Wildland Fire Officer II.** The person responsible for commanding and managing resources in the suppression of all aspects of an extended attack wildland fire or an initial attack exceeding the capability of the Wildland Fire Officer I.
- **3.3.55 Wildland/Urban Interface.** The location where humans and their development meet or are intermixed with wildland fuels.
- **3.3.56 Wildland/Urban Interface Coordinator.** The person responsible for development of the plan(s) for the reduction of the fire risks and hazards associated in the wildland/urban interface.
- **3.3.57** Wildland/Urban Interface Protection Specialist. The person responsible for the development and/or implementation of a plan to protect people, animals, communities, individual structures or other improvements from a wildland fire.

## **Chapter 4** Entrance Requirements

- **4.1 General.** Prior to entering training to meet the requirements of Chapters 5, 6, 7, and 8, the candidate shall meet the following requirements:
- The minimum educational requirements established by the AHI
- (2) The age requirements established by the AHI
- **4.2\* Medical Requirements.** Medical requirements for entry level personnel shall be developed and validated by the AHJ and shall be in compliance with applicable legal requirements.
- **4.3\* Physical Performance Requirements.** Job-related physical performance requirements for entry level personnel shall be developed and validated by the AHJ.

# Chapter 5 Wildland Fire Fighter I

- **5.1.1** The Wildland Fire Fighter I shall meet the job performance requirements defined in Sections 5.1 through 5.5.
- (A)\* Requisite Knowledge. Fireline safety, use, and limitations of personal protective equipment, agency policy on fire shelter use, basic wildland fire behavior, fire suppression techniques, basic wildland fire tactics, the fire fighter's role within the local incident management system, and first aid.
- **(B)\* Requisite Skills.** Basic verbal communications and the use of required personal protective equipment.
- **5.2 Human Resource Management.** No job performance requirements at this level.

## 5.3 Preparedness.

- **5.3.1 Definition of Duty.** Activities in advance of fire occurrence to ensure safe and effective suppression action.
- **5.3.2** Maintain assigned personal protective equipment, given the standard equipment issue, so that the equipment is serviceable and available for use on the fireline and defects are recognized and reported to the supervisor.
- **(A) Requisite Knowledge.** Maintenance of personal protective equipment including inspection, the recognition of unserviceable items, and proper cleaning procedures.
- (B) Requisite Skills. No requisite skills required at this level.
- **5.3.3\*** Maintain assigned suppression hand tools and equipment, given tools and equipment and agency maintenance specifications so that assigned equipment is safely maintained and serviceable and defects are recognized and reported to the supervisor.
- **(A) Requisite Knowledge.** Inspection of tools and assigned suppression equipment, the recognition of unserviceable items, and required maintenance techniques.
- **(B)\* Requisite Skills.** Sharpening and other maintenance techniques for assigned suppression equipment, and use of required maintenance equipment.
- **5.4 Mobilization.** No job performance requirements at this level.

## 5.5 Suppression.

- **5.5.1 Definition of Duty.** All activities to confine and extinguish a wildland fire, beginning with dispatch.
- **5.5.2** Assemble and prepare for response, given an assembly location, an assignment, incident location, mode of transportation, and the time requirements, so that arrival at the incident with the required personnel and equipment meets agency guidelines.
- (A)\* Requisite Knowledge. Equipment requirements, agency time standards and special transportation considerations (weight limitations), agency safety, and operational procedures for various transportation modes.
- (B) Requisite Skills. None specified.
- **5.5.3** Recognize hazards and unsafe situations given a wildland or wildland/urban interface fire and the standard safety policies and procedures of the agency, so that the hazard(s) and unsafe condition(s) are promptly communicated to the supervisor and appropriate action is taken.
- **(A)\* Requisite Knowledge.** Basic wildland fire safety, fire behavior, and suppression methods.
- **(B) Requisite Skills.** None specified.
- **5.5.4** Construct a fireline, given a wildland fire, agency line construction standards, suppression tools, water or other suppression agents, and equipment, so that the fireline conforms to the construction standard.
- **(A) Requisite Knowledge.** Principles of fireline construction, techniques, and standards.
- **(B)\* Requisite Skills.** Correct use of hand tools, fire stream practices, and agent application.
- **5.5.5** Secure the fireline, given a wildland fire and suppression tools, water or other suppression agents, and equipment,

- so that burning materials and unburned fuels that threaten the integrity of the fireline are located and abated.
- **(A) Requisite Knowledge.** Line improvement techniques and safety considerations when burning out.
- (B)\* Requisite Skills. Use of basic ignition devices.
- **5.5.6** Describe the methods to reduce the threat of fire exposure to improved properties given a wildland or urban/interface fire, suppression tools, and equipment so that improvements are protected.
- **(A) Requisite Knowledge.** Wildland fire behavior, wildland fuel removal, structure protection methods, and equipment and personnel capabilities.
- **(B) Requisite Skills.** The application of requisite knowledge to protect structures.
- **5.5.7** Mop up fire area, given a wildland fire, suppression tools, and water or other suppression agents and equipment, so that burning fuels that threaten escape are located and extinguished.
- **(A) Requisite Knowledge.** Mop-up principles, techniques, and standards.
- **(B) Requisite Skills.** Use of basic tools and techniques to perform mop-up operations.
- **5.5.8** Patrol the fire area, given a wildland fire, suppression tools, and equipment, so that control of the fire area is maintained.

# Chapter 6 Wildland Fire Fighter II

- **6.1.1\*** For certification at the Wildland Fire Fighter II level, the Wildland Fire Fighter I shall meet the job performance requirements defined in Sections 6.1 through 6.5.
- **(A)\* Requisite Knowledge.** The Wildland Fire Fighter II role within the incident management system, basic map reading and compass use or other locating device radio procedures, and record keeping.
- (B) Requisite Skills. Orienteering and radio use.
- 6.2 Human Resource Management.
- **6.2.1** Evaluate the readiness of assigned crew members, given a wildland fire, an assigned task, and agency equipment standards, so that crew members are equipped and supplied for suppression duties.
- **(A) Requisite Knowledge.** Agency standards and personnel inspection procedures.
- **(B) Requisite Skills.** Inspect members' personal protective equipment, tools, supplies, qualifications, and physical fitness level.
- **6.2.2** Brief assigned personnel, given an assignment, supporting information, and equipment requirements, so that the personnel are informed of specific tasks, standards, safety, operational, and special interest area considerations.
- **(A)\* Requisite Knowledge.** Incident and task information necessary to carry out assignments.
- (B) Requisite Skills. Briefing skills.

- **6.2.3\*** Lead wildland fire fighters in the performance of a task, given an assignment and performance standards, so that the task is safely completed within the standards in accordance with agency guidelines.
- (A) Requisite Knowledge. Leadership techniques for small groups.
- **(B) Requisite Skills.** The application of requisite knowledge to lead wildland fire fighters to complete the task in a manner that is within the standard.

## 6.3 Preparedness.

- **6.3.1 Definition of Duty.** Responsibilities in advance of fire occurrence to ensure that tools, equipment, and supplies are fire ready.
- **6.3.2\*** Maintain power tools and portable pumps, given agency maintenance specifications, supplies, and small tools, so that equipment is maintained and serviceable and defects are recognized and repaired.
- (A) Requisite Knowledge. Maintenance procedures for power tools and portable pumps.
- **(B) Requisite Skills.** Power tool and portable pump preventative maintenance and repair.
- **6.3.3** Inspect tools and equipment, given agency specifications, so that availability of the tools and equipment for fire use is ensured.
- **(A)\* Requisite Knowledge.** Tool and equipment inspection guidelines.
- **(B) Requisite Skills.** Ability to inspect the tools and equipment according to guidelines.
- **6.4 Mobilization.** No job performance requirements at this level.

#### 6.5 Suppression.

- **6.5.1 Definition of Duty.** All activities to contain and extinguish a wildland or wildland/urban interface fire beginning with dispatch.
- **6.5.2** Select fireline construction methods, given a wildland fire and line construction standards, so that the technique used is compatible with the conditions and meets agency standards.
- **(A) Requisite Knowledge.** Resource capabilities and limitations, fireline construction methods, and agency standards.
- (B) Requisite Skills. None specified.
- **6.5.3** Effect the reduction of fire exposure to improved properties given a wildland or wildland/urban interface fire and available tools and equipment so that improvements are protected and the risk from fire is reduced.
- **(A) Requisite Knowledge.** Knowledge of fire behavior in both wildland and improved properties, and the effects of fuel modification to reduce the hazard.
- **(B) Requisite Skills.** The use of tools and equipment to protect the improved property.
- **6.5.4\*** Operate a chain saw, given an assignment at a wildland fire and operational standards, so that the assignment is safely completed.

- **(A) Requisite Knowledge.** Agency operational standards for chainsaw operation and safety, tool selection, and personal protective equipment used during saw use.
- **(B)\* Requisite Skills.** Site preparation, handling and cutting techniques, use of wedges, and saw and equipment transportation.
- **6.5.5** Operate water delivery equipment, given an assignment at a wildland fire and operational standards, so that the proper equipment is selected, desired nozzle pressure is attained, and flow is maintained.
- **(A)\* Requisite Knowledge.** Basic hydraulics, pump and water delivery system capabilities, operation of pumps, basic drafting and associated equipment.
- **(B) Requisite Skills.** Placement, operation, and system setup.
- **6.5.6\*** Secure the area of suspected fire origin and associated evidence, given a wildland fire and agency procedures, so that all evidence or potential evidence is protected from damage or destruction and reported to a supervisor.
- **(A) Requisite Knowledge.** Knowledge of types of evidence and the importance of site security and evidence preservation.
- **(B) Requisite Skills.** Evidence preservation techniques and use of marking devices for site security.
- **6.5.7** Serve as a lookout given an assignment at a wildland fire as per agency procedures so that fire fighters are updated or warned when conditions change.
- **(A)\* Requisite Knowledge.** Basic fire behavior and how to recognize hazardous situations, communications methods, equipment, and procedures.
- **(B) Requisite Skills.** The ability to accurately describe fire behavior and changes in fire behavior through verbal communication, hand signals, or use of communication equipment.

# Chapter 7 Wildland Fire Officer I

- **7.1.1** For certification at the Wildland Fire Officer I level, the Wildland Fire Fighter II shall meet the job performance requirements defined in Sections 7.1 through 7.5.
- **(A) Requisite Knowledge.** Authority and responsibility of cooperating jurisdictional agencies, formal and informal agreements between jurisdictional agencies, the incident management system used by the jurisdiction, and the Wildland Fire Officer I's role within that system.
- (B) Requisite Skills. None specified.
- **7.1.2\* Informative Requests.** Respond to requests for incident information given policies and procedures of the AHJ, so that response is accurate, within the policies, and timely.
- **(A) Requisite Knowledge.** Agency policies and procedures for release of incident information.
- **(B) Requisite Skills.** The ability to communicate both orally and in writing to requests for information.
- 7.2 Human Resource Management.
- **7.2.1 Definition of Duty.** Supervise human resources to accomplish assignments in a safe and efficient manner.

- **(A)\* Requisite Knowledge.** Basic human resource management and principles of supervision.
- (B) Requisite Skills. None specified.
- **7.2.2** Evaluate assigned personnel, given agency personnel performance standards, so that members are capable of performing assigned tasks safely and individuals not meeting the standards are identified and that corrective actions are taken.
- (A) Requisite Knowledge. Agency personnel policies and procedures, performance standards, and evaluation.
- **(B) Requisite Skills.** The ability to observe, evaluate, counsel, and document personnel as to fitness for duty in accordance with agency policies and procedures.
- **7.2.3** Verify the qualifications of assigned personnel, given an assignment or task, so that individual fire fighter skills are appropriate and deficiencies are identified, reported, and corrective action is taken.
- (A) Requisite Knowledge. Knowledge of the agency's qualifications standards.
- **(B) Requisite Skills.** The ability to assess personnel qualification for assignment in accordance with agency policies and procedures.
- **7.2.4** Provide for medical treatment, given an injured or ill fire fighter and agency policies and procedures, so that the appropriate emergency treatment is provided, appropriate notifications are made, and required reports are completed.
- (A) Requisite Knowledge. Medical procedures and agency accident and illness reporting procedures.
- (B) Requisite Skills. None specified.
- **7.2.5** Evaluate job performance of assigned personnel, given agency standards, so that the information is provided to the individual being evaluated and all required forms are completed.
- (A) Requisite Knowledge. Basic performance evaluation.
- (B) Requisite Skills. None specified.
- **7.3 Preparedness.** No additional job performance requirements at this level.

# 7.4 Mobilization.

- **7.4.1 Definition of Duty.** Collection of agency dispatch information, assembly of assigned resources, travel to designated location, and check-in.
- **7.4.2** Obtain complete information from agency dispatch, given agency standard operating procedures, so that travel route, assignment, time needed, and point of contact are determined.
- **(A) Requisite Knowledge.** Agency dispatch, travel, and accident and equipment breakdown procedures.
- (B) Requisite Skills. None specified.
- 7.5 Suppression.
- **7.5.1\* Definition of Duty.** Supervision of a single resource involved in wildland fire suppression, and when first on scene, assume command of initial attack incident, until relieved.
- **7.5.2\*** Size up an incident to formulate an incident action plan, given a wildland fire and available resources, so that in-

- cident objectives are set and strategies and tactics are applied according to agency policies and procedures.
- **(A) Requisite Knowledge.** Size-up procedures, fire behavior, resource availability and capability, and suppression priorities.
- **(B)\* Requisite Skills.** Identification of values at risk, objective setting, and selection of correct wildland fire-suppression strategies.
- **7.5.3\*** Develop an initial report on conditions given incident information and agency policies and procedures, so that required incident information is communicated to the agency communications center and updated as needed.
- **7.5.4\*** Establish an incident command post (ICP), given AHJ policies and procedures, so that the location is correctly sited, clearly identified, and communicated to personnel.
- **7.5.5** Deploy resources to suppress a wildland fire, given an assignment, personnel, equipment, and agency policies and procedures, so that appropriate suppression actions are taken, and safety of personnel is ensured.
- **(A)\* Requisite Knowledge.** Fireline location and construction techniques, burning out procedures, capabilities of firefighting equipment and personnel, radio communications capabilities and protocols, and techniques of the proper and safe deployment of the assigned resources.
- **(B)\* Requisite Skills.** Capabilities of assigned personnel and equipment.
- **7.5.6\*** Maintain incident records, given agency policies and procedures and applicable forms, so that required information is documented.
- **(A) Requisite Knowledge.** Agency incident documentation procedures.
- (B) Requisite Skills. None specified.
- **7.5.7** Evaluate incident conditions, given a wildland fire, so that progress, changes in fuels, topography, weather, fire behavior, and other significant events are identified and communicated to the supervisor and to assigned and adjoining personnel.
- (A)\* Requisite Knowledge. Intermediate wildland fire behavior.
- **(B) Requisite Skills.** Collect wildland fire weather, fuels, and topographic information.
- **7.5.8** Communicate with supervisors, crew members, and adjoining personnel, given a wildland fire incident, so that progress, changes in conditions, fire behavior, and other significant events are current.
- **7.5.9\*** Arrange for the logistical support needs for assigned resources, given a wildland fire, assigned resources, and agency policies and procedures, so that personnel and equipment needs are met in accordance with agency policies.
- **7.5.10** Analyze incident needs, given assigned resources and incident status, so that additional resources needed are ordered or excess resources are identified and released in accordance with agency policies and procedures.
- **(A) Requisite Knowledge.** AHJ policies and procedures related to resource ordering and release.
- (B) Requisite Skills. None specified.

- **7.5.11** Provide incident information to the incoming replacement incident commander, given a wildland fire, so that the transfer of command is completed and the new incident commander has the information necessary to operate.
- **(A) Requisite Knowledge.** AHJ policies and procedures for transfer of command.
- (B) Requisite Skills. None specified.
- **7.5.12** Deploy resources to mop up a wildland fire, given a wildland fire, personnel, equipment, and agency policies and procedures, so that appropriate mop-up actions are taken.
- **7.5.13** Complete wildland fire suppression operations, given a wildland fire that has been controlled and mopped up and agency policies and procedures, so that the fire area is extinguished and resources are returned to service.
- **7.5.14** Complete personnel time and equipment use records, given agency policies, procedures, and related forms, so that the information is accurate and in compliance with standards established by the AHI.
- (A) Requisite Knowledge. Basic wildland fire business management and AHJ policies and procedures for proper record keeping.
- (B) Requisite Skills. Written communication.
- **7.5.15\*** Prepare final incident reports, given an extinguished wildland fire and agency policies and procedures, so that the reports are complete, accurate, and submitted on time.
- (A) Requisite Knowledge. AHJ incident reporting policies and procedures.
- **(B) Requisite Skills.** The ability to fill out forms accurately.

# Chapter 8 Wildland Fire Officer II

#### 8.1 General.

- **8.1.1** For certification at the Wildland Fire Officer II level, the Wildland Fire Officer I shall meet the job performance requirements defined in Sections 8.1 through 8.5.
- **(A) Requisite Knowledge.** Authority and responsibility for implementing formal and informal agreements between jurisdictional agencies, the incident management system used by the jurisdiction, and the Wildland Fire Officer II's role within that system.
- **(B)** Requisite Skills. None specified.
- **8.2 Human Resource Management.** No additional job performance requirements at this level.
- **8.3 Preparedness.** No additional job performance requirements at this level.

# 8.4 Mobilization.

- **8.4.1\* Definition of Duty.** Given an assignment and resources, supervise multiple resources so that they are deployed in accordance with the action plan and agency policies and procedures.
- **(A) Requisite Knowledge.** Agency policies and procedures covering the movement of multiple resources.
- **(B) Requisite Skills.** The ability to access the readiness of assigned resources.

## 8.5 Suppression.

- **8.5.1 Definition of Duty.** Command resources in the suppression of a wildland fire that exceeds the capability of the Wildland Fire Officer I.
- **8.5.2\*** Review, validate, modify, and document an incident action plan and develop a new plan for each operational period, given an action plan, so that strategies and tactics are applied according to agency policies and procedures in accordance with incident objectives.
- **(A) Requisite Knowledge.** Availability and capability of resources and agency suppression priorities based on personnel safety and values at risk.
- **(B)\* Requisite Skills.** Identification of values at risk, objective setting, and selection of correct wildland fire-suppression strategies and tactics.
- **8.5.3** Evaluate the need for and location of incident facilities, given AHJ policies and procedures, so that the location is correctly sited, clearly identified, and communicated to personnel.
- **8.5.4** Maintain incident records, given agency policies and procedures and applicable forms, so that required information is documented.
- **(A) Requisite Knowledge.** Agency incident documentation procedures.
- (B) Requisite Skills. None specified.
- **8.5.5\*** Obtain incident information from the outgoing incident commander, given a wildland fire, so that the transfer of command is completed and the new incident commander has the information necessary to operate.
- **(A) Requisite Knowledge.** AHJ policies and procedures for transition in command.
- (B) Requisite Skills. None specified.

# Chapter 9 Wildland/Urban Interface Protection Specialist

- **9.1.1** For certification at the Wildland/Urban Interface Protection Specialist level, the Wildland Fire Officer II shall meet the job performance requirements defined in Sections 9.1 through 9.6.
- (A) Requisite Knowledge. Authority and responsibility of allied and cooperating agencies, the incident management system used by the AHJ, and the role of the Wildland/Urban Interface Protection Specialist within the system; NFPA 299, Standard for Protection of Life and Property from Wildfire, and NFPA 295, Standard for Wildfire Control; basic understanding of structural fire-fighting strategy and tactics.
- **(B) Requisite Skills.** The ability to prepare written reports and protection plans and implement them.
- **9.2 Human Resource Management.** No additional job performance requirements at this level.

- **9.3 Preparedness.** No additional job performance requirements at this level.
- **9.4 Mobilization.** No additional job performance requirements at this level.

# 9.5 Suppression.

- **9.5.1 Risk and Hazard Assessment.** Assess the actual and potential risks, hazards, and values at risk for the wildland/urban interface fire incident, given incident intelligence, predicted fire behavior, and agency policies, so that all risks, hazards, and values at risk are identified for planned mitigation efforts.
- **(A) Requisite Knowledge.** Have an understanding of the factors that constitute a wildland fire hazard and risk and the impacts they will have on fire-suppression efforts.
- **(B) Requisite Skills.** The ability to prioritize the various risks and hazards as a plan of operations is being developed.
- **9.5.2 Hazard Mitigation Practices.** To apply applicable action(s), given resources, materials, and strategies, so that the risks, hazards, and values at risk are mitigated.
- (A) Requisite Knowledge. An understanding of the various construction materials, types, methods, and practices; the requirements for defensible space as related to fuels, topography, and the building construction; and the various mitigation actions associated with the various risks and hazards.
- **(B) Requisite Skills.** The ability to apply effective mitigation measures.
- **9.5.3 Information.** Provide internal and external briefings on the role of a Wildland/Urban Interface Protection Specialist, the methodology of assessing the risks and hazards, and the development of a structure protection plan, given specified audiences, agency policy, and an overall education strategy, so that the specified audiences are informed regarding the wildland/urban interface protection effort.
- **(A) Requisite Knowledge.** Understanding of public presentation techniques.
- **(B) Requisite Skills.** The ability to verbally communicate with the public and fire-suppression personnel.
- **9.5.4 Evacuation Planning.** Develop an evacuation or "protect-in-place" plan, given incident intelligence, predicted fire behavior, community maps, and resources, so that the public is protected.
- (A) Requisite Knowledge. Understanding of the responsibilities of the various authorities as well as local, state, and federal laws and regulations that govern evacuations, and "protect-in-place" techniques.
- **(B) Requisite Skills.** The ability to develop an effective and timely evacuation plan for an incident, and the ability to activate an evacuation plan.
- **9.5.5 Hazardous Materials.** Analyze the potential involvement of various hazardous materials, given incident information and resources, so that hazardous conditions are identified and mitigated.
- (A) Requisite Knowledge. A working knowledge of the types of hazardous materials that can be involved and the hazards they can pose to the public, fire-fighting personnel, and the environment; NFPA 472, Standard for Professional Competence of Responders to Hazardous Materials Incidents, First Responder level.

- (B) Requisite Skills. None required.
- **9.5.6 Structure Protection Plan.** Develop and monitor a structure protection plan, given incident intelligence, current and predicted fire behavior, community data, and available resources, so that various structures and other improvements that are or may be threatened during a wildland/urban interface incident are protected and the plan is modified as needed.
- **(A) Requisite Knowledge.** Knowledge of the availability and capability of fire apparatus and equipment that can be involved in an incident, the elements of a structure protection plan, incident objectives, and the weather forecast.
- **(B) Requisite Skills.** The ability to develop and implement a structure protection plan and to constantly evaluate the wildland fire situation and change and modify the structure protection plan accordingly.

## 9.6 Post-Incident — Data Collection.

- **9.6.1** Establish a plan and team to gather damage assessment data, given incident information, data, construction costs, and resources for a wildland/urban interface fire, so that all pertinent data is collected for analysis.
- **(A) Requisite Knowledge.** An understanding of Global Positioning Systems (GPS) and Geographic Information Systems (GIS) methodology and equipment and methods to obtain damage assessment data.
- **(B) Requisite Skills.** The ability to develop and implement a plan to gather damage assessment data and the tools to accomplish the task.

# Chapter 10 Wildland/Urban Interface Coordinator

#### 10.1 General.

- **10.1.1** The Wildland/Urban Interface Coordinator shall meet the job performance requirements as defined in Sections 10.1 through 10.9 and meet all of the requirements of Public Fire and Life Safety Educator II (NFPA 1035, Standard for Professional Qualifications for Public Fire and Life Safety Educator).
- (A) Requisite Knowledge. Wildland Fire Fighter I (NFPA 1051, Standard for Wildland Fire Fighter Professional Qualifications), Fire Operations in the Urban Interface (NWCG S-215), and NFPA 299, Standard for Protection of Life and Property from Wildfire.
- (B) Requisite Skills. None specified.
- **10.1.2** For certification as a Wildland/Urban Interface Coordinator, the candidate shall meet the requirements of Public Fire and Life Safety Educator II (NFPA 1035).
- (A) Requisite Knowledge. NFPA 299, Standard for Protection of Life and Property from Wildfire.
- (B) Requisite Skills. None specified.

#### 10.2 Administration.

**10.2.1** Recommend policies and procedures, given management objectives, for the delivery of wildland/urban interface programs so that the policies and procedures are in accordance with the codes and standards of the AHJ.

- (A) Requisite Knowledge. Policies and procedures of the AHJ related to code enforcement, and sources of detailed and technical information relating to fire protection and life safety.
- **(B) Requisite Skills.** The ability to identify effective construction methods and materials related to fire safety, to read and interpret construction plans and specifications, to communicate verbally and in writing, to educate, to conduct research, to make decisions, to recognize problems, and to resolve conflicts.
- **10.2.2** Develop written correspondence to communicate fire protection and prevention requirements, given wildland/urban interface issues, so that the correspondence reflects research and accurate interpretation of applicable policies, procedures, codes, and standards.
- (A) Requisite Knowledge. Applicable policies, procedures, codes, and standards adopted by the AHJ and the interrelationship among those codes and regulations.
- **(B) Requisite Skills.** The ability to conduct code-related research and to clearly express code requirements verbally and in writing.
- **10.2.3** Select or create checklists and forms, given applicable policies, procedures, codes, and standards of the AHJ, so that information required and used to address the wildland/urban interface fire issues is clear and concise.
- **(A) Requisite Knowledge.** Elements required by the applicable policies, procedures, codes, and standards.
- **(B) Requisite Skills.** The ability to clearly express requirements of the AHJ in writing and organize those requirements in a logical and complete format for use as a guide to perform uniform and effective interface safety inspections.
- **10.3 Human Resource Management.** No performance requirements.

# 10.4 Preparedness.

- **10.4.1** Analyze and evaluate the jurisdictional area, given a wildland/urban interface area, so that a hazard, risk, and values at-risk rating is established in accordance with the adopted policies, procedures, codes, and standards of the AHJ.
- **(A) Requisite Knowledge.** An applicable hazard assessment system to be used to assign a level of risk to life and improved property from wildland fire.
- **(B) Requisite Skills.** The ability to apply the hazard assessment system to a project, property, or jurisdictional area.
- **10.4.2** Given the (general/comprehensive/growth management) plan of the AHJ, analyze the public safety element so that all wildland/urban interface fire issues are identified.
- **(A) Requisite Knowledge.** Fire and life safety issues, public safety issues, community concerns, available community resources, governmental regulations, environmental issues, and technological changes.
- **(B) Requisite Skills.** The ability to analyze trends and demographics and prepare public safety elements and plans.
- **10.4.3** Given a proposed project, assist planners and developers in the planning phase of subdivisions so that compliance with wildland/urban interface policies, procedures, codes, and standards of the AHJ is ensured.

- **(A) Requisite Knowledge.** Subdivision planning and jurisdictional guidelines.
- **(B) Requisite Skills.** The ability to interact with planners, developers, contractors, government officials, partnerships, and collaborative efforts.
- **10.4.4** Process a plan review application, given a proposed project in a wildland/urban interface area, so that the application is evaluated and processed in accordance with the applicable policies, procedures, codes, and standards of the AHJ.
- **(A) Requisite Knowledge.** Application process for plan review and the applicable policies, procedures, codes, and standards.
- **(B) Requisite Skills.** The ability to communicate verbally and in writing on matters related to the applicable policies, procedures, codes, and standards.
- 10.4.5 Facilitate the resolution of deficiencies identified during the plan review, given a submittal and the established practices and procedures of the AHJ, so that deficiencies are identified, documented, and reported to the plan submitter with applicable references and alternative methods for compliance.
- (A) Requisite Knowledge. Policies and procedures of the AHJ regarding the communication of discrepancies and the appeals process as related to the codes and standards of the AHJ.
- **(B) Requisite Skills.** The ability to communicate verbally and in writing.
- **10.4.6** Given wildland/urban interface standards of the AHJ, write recommended conditions of approval for proposed projects so that the project is in compliance.
- **(A) Requisite Knowledge.** Knowledge of fire-resistive construction and landscaping techniques and subdivision regulations, procedures, and processes of the AHJ.
- **(B) Requisite Skills.** The ability to work with and educate planners, developers, contractors, and homeowners, and to write clearly and concisely and speak during public meetings before planning and zoning boards, homeowners' associations, and special interest groups.
- **10.4.7** Investigate wildland/urban interface safety complaints, given a reported situation or condition, so that complaint information is recorded and processed.
- (A) Requisite Knowledge. Applicable policies, procedures, codes, and standards adopted by the AHJ.
- **(B) Requisite Skills.** The ability to interpret policies, procedures, codes, and standards, communicate verbally and in writing, recognize problems, and refer complaints.

# 10.5 Hazard Mitigation.

- 10.5.1 Given a fire-prone ecosystem, a wildland/urban interface area, applicable policies, procedures, codes, and standards, generate a strategic plan with necessary procedural guidelines and mitigation treatments so that the strategic plan meets AHJ requirements for adoption.
- **(A) Requisite Knowledge.** Applicability and effectiveness of various mitigation treatments and the application of pertinent policies, procedures, codes, and standards.
- **(B) Requisite Skills.** The ability to discern the local political and budgetary environment.

- **10.5.2** Given a strategic plan and procedural guidelines, provide leadership and supervision so that fuel modifications designed to reduce wildland/urban interface hazards are implemented.
- (A) Requisite Knowledge. Techniques pertinent to selective tree thinning, brush disposal, pruning, grazing, mowing, prescribed fire (including air quality and smoke management), and chemical treatments.
- **(B) Requisite Skills.** The ability to prepare clear written treatment prescriptions, to demonstrate the capability to communicate orally in a clear, concise, and effective manner, willingness to interact with diverse groups, and a capacity to initiate and sustain needed activities.
- **10.5.3** Recommend mitigation strategies, given an existing development or a proposed project, so that strategies are applied in accordance with the applicable policies, procedures, codes, and standards.
- **(A) Requisite Knowledge.** Fuel types, wildland fire behavior, building construction, defensible space, and mitigation strategies.
- **(B) Requisite Skills.** The ability to select an effective wildland/urban interface mitigation strategy.
- **10.5.4** Recommend modifications to codes and standards of the AHJ, given wildland/urban interface issues, so that the proposed codes and standards are written to address the problem, need, or deficiency.
- (A) Requisite Knowledge. State statutes or local ordinances establishing or empowering the agency to adopt, enforce, and revise codes and standards; the legal instruments establishing or adopting codes and standards; and the development and adoption process for legislation or regulations.
- **(B) Requisite Skills.** The ability to recognize problems, communicate, and identify cost/risk benefits.
- **10.5.5** Develop hazard mitigation plans, given policies, procedures, codes and standards, so that an existing development within the jurisdictional area is brought into compliance.
- **(A) Requisite Knowledge.** A knowledge of wildland/urban interface hazard mitigation planning documents and the use of prescribed burning and other fuel modification techniques, defensible space concepts, building construction, landscaping, and maintenance.
- **(B) Requisite Skills.** The ability to develop written plans.
- **10.5.6** Given an interface area, provide technical expertise to agency staff, developers, homebuilders, homeowners, landscapers, consultants, or others so that the wildland/urban interface threat is reduced.
- (A) Requisite Knowledge. Understanding of the roles and responsibilities of other agencies, departments, and personnel whose involvement is crucial to address the threat.
- **(B) Requisite Skills.** Demonstrated ability to educate others to achieve goals specified in a strategic plan.

# 10.6 Public Education.

**10.6.1** Develop and implement a public education program, given a comprehensive educational strategy, so that the hazards and risks associated with the wildland/urban interface are reduced.

- (A) Requisite Knowledge. Understanding of local fire prevention goals, fundamentals of public education program delivery methods, and available tools to get the public to respond.
- **(B) Requisite Skills.** The ability to identify individual and/or collective fire education needs and to recognize effective communication tools necessary to implement and measure success of delivery strategies.
- **10.6.2** Develop or oversee the development of written, audiovisual, or display material, given objectives and specified audience(s), so that affected interests are educated and informed on the wildland/urban interface fire environment and mitigation techniques.
- (A) Requisite Knowledge. Data resources, information systems including format and materials, learning theory, computer, video and audio writing, and editing.
- **(B) Requisite Skills.** The ability to assemble information in specific format, generate written or audio-visual materials, write persuasively and effectively, recognize and use powerful images, and identify and organize outreach to affected audiences and the community at large.
- **10.6.3** Coordinate or provide presentations, given identified fire and life safety goals and objectives, so that the public is informed on wildland/urban interface issues.
- **(A) Requisite Knowledge.** Potential community partners with shared concerns and resources, community concerns, and available community resources.
- **(B) Requisite Skills.** The ability to facilitate meetings, motivate partners to achieve goals, and prepare presentations.
- **10.7 Mobilization.** No performance requirements.
- **10.8 Suppression.** No performance requirements.

# 10.9 Post-Incident.

- 10.9.1 Implement a post-incident data collection system regarding wildland/urban interface fires in order to capture data on threats, losses, effectiveness of mitigation measures, and public education, given a data collection system and needed tools, so that all pertinent data is collected for analysis.
- (A) Requisite Knowledge. Data collection, evaluation methods, and statistical analysis methods and resources.
- **(B) Requisite Skills.** The ability to collect and analyze data in order to implement an evaluation strategy.

# **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.1.1** This standard does not address prescribed fire requirements. Authorities having jurisdiction can choose to use any or all of these requirements as they deem appropriate.
- **A.1.3.4** It is recommended, where practical, that evaluators be individuals who were not directly involved as instructors for the requirement being evaluated.
- **A.3.1** Action verbs used in the job performance requirements in this document are based on the first definition of the verb

ANNEX A 1051–15

found in Webster's Third New International Dictionary of the English Language.

**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.3.3.2 Breakover.** Also called slopover.

**A.3.3.4 Burning Out.** Burning out is done on a small scale in order to consume unburned fuel and aid control line construction. Burning out should not be confused with "backfiring," which is a larger-scale tactic to eliminate large areas of unburned fuels in the path of a fire or to change the direction of force of the convection column.

**A.3.3.10 Defensible Space.** The area is cleared of combustibles with the following intent:

- (1) To protect life and property from wildland fire
- (2) To reduce the potential for fire on improved property spreading to wildland fuels
- (3) To provide a safe working area for fire fighters protecting life and improved property

**A.3.3.13 Extended Attack.** An extended attack incident is a wildfire that has not been contained/controlled by the initial attack forces and additional fire-fighting resources are arriving, en route, or being ordered by the initial attack incident commander. See Figure A.3.3.13. (Note: An extended attack incident fits into the Type 3 incident as regards complexity.) An extended attack incident is normally characterized by the following:

- (1) Usually less than 100 acres in size. In some rural/wildland areas where the values at risk are low and fuels are primarily rated for 100 hours or less, the fire size could be significantly larger.
- (2) Fire-fighting resources vary from several single resources to several task force/strike teams.
- (3) The incident can be divided into divisions, but it would not meet the division supervisor complexity in regards to span-of-control.

(4) The incident is expected to be contained/controlled in the first operational period. If not, it can transition into a more complex incident (Type 2 organization).

- (5) Generally, a written incident action plan might not be needed or prepared.
- (6) Some of the command and general staff positions such as operations, planning, logistics, safety, and liaison might be filled.
- (7) Staging areas can be utilized and in some instances a small incident base can be established.

General staff positions are filled as needed.

**A.3.3.20 Hazard Assessment System.** The ratings generated should be the basis for implementation of mitigation strategies.

**A.3.3.26 Incident Management System.** The system is also referred to as an incident command system (ICS).

A.3.3.27 Initial Attack. Also called initial action.

A.3.3.1 NWCG. The fires in the early 1970s stimulated the formation of the National Wildfire Coordinating Group (NWCG). This organization was renamed in 1994 as the National Wildland Fire Coordinating Group. NWCG is currently made up of the Department of Agriculture Forest Service (FS); four Department of the Interior agencies — the Bureau of Land Management (BLM), the National Park Service (NPS), the Bureau of Indian Affairs (BIA), and the Fish and Wildlife Service (FWS); the United States Fire Administration (USFA); state forestry agencies through the National Association of State Foresters (NASF); and the Inter-Tribal Timber Council. The purpose of the NWCG is to coordinate programs of the participating wildfire management agencies to avoid duplication and to provide a means of constructively working together.

**A.3.3.36 Prescribed Fire (Burning).** A written, approved prescribed fire plan must exist and any local, state, or federal requirements must be met prior to ignition.

**A.3.3.42 Special Interest Area.** They include geological, historical, and archaeological areas of interest; habitats of threatened or endangered species; and other memorable features.

**A.3.3.45 Structure Protection.** This normally does not include an attack on a fire that is inside the structure.

**A.3.3.52** Wildland Fire Fighter II. This person should function safely and effectively as a member of a wildland fire suppression crew of equally or less experienced fire fighters to accomplish a series of tasks. The Wildland Fire Fighter II can be called upon to provide leadership and temporary supervision for a small crew. The Wildland Fire Fighter II maintains direct communications with a supervisor.

**A.4.2** NFPA 1582, Standard on Medical Requirements for Fire Fighters and Information for Fire Department Physicians, establishes medical requirements for structural fire fighters. These requirements might need to be modified for individuals involved in the suppression of wildland fires. The medical and work capacity (fitness) requirements for this standard should be based on in-depth consideration of essential wildland fire-fighting functions. The following essential functions are what fire fighters are expected to perform during wildland fire suppression duties, as determined in a comprehensive job task analysis:

(1) Operate both as a member of a team and independently at incidents of uncertain duration

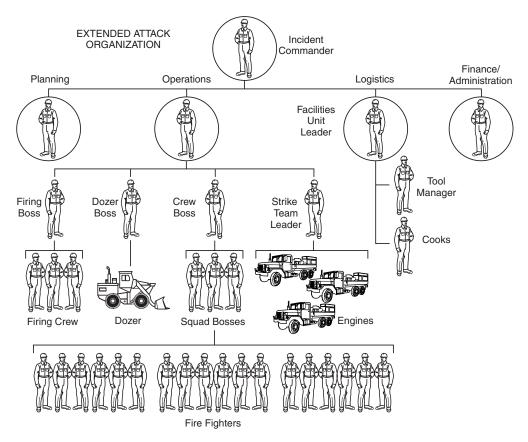


FIGURE A.3.3.13 Example of an Extended Attack Organization.

- (2) Work in areas where sustaining traumatic or thermal injuries is possible
- (3) Wear personal protective equipment and carry gear weighing up to 13.6 kg (30 lb) while performing fire-fighting tasks
- (4) Perform physically demanding work for extended periods in the heat while wearing equipment that significantly impairs body-cooling mechanisms
- (5) Face exposure to respirable particulate, carbon monoxide, and other gases, and, if required, wear respiratory protective equipment that places an added burden on the respiratory system
- (6) Work for long periods of time on tasks requiring sustained physical exertion
- (7) Make transitions from rest to arduous effort
- (8) Use manual and possibly power tools in the performance of duties
- (9) Perform a variety of tasks in rough, steep terrain, exposed to snags, rocks, and other hazards
- (10) Spend extensive time exposed to the elements
- (11) Tolerate wide fluctuations in temperature while performing duties
- (12) Operate in environments of stress, poor visibility, high noise, and dangerous footing
- (13) Perform difficult tasks and make life and death decisions during emergencies
- **A.4.3** Physical fitness requirements should be developed and validated by the AHJ. Physical fitness requirements should be in compliance with applicable Equal Opportunity and Ameri-

cans with Disabilities Act regulations and other legal requirements. Additional information can be found in the following NWCG publications: NFES 1596, Fitness and Work Capacity, the NFES 2071 video Fit to Work, Fatigue and the Firefighter, and NWCG video Measuring Physical Fitness (Step Test).

A.5.1.1(A) Information related to suppression tactics and safety considerations for wildland fires can be found in the publications NWCG, NFES 0065, Fireline Handbook; NFES 1570, Your Fire Shelter; NFES 2102, Firefighter Safety in Wildland/ Urban Interface Fires; NFES 2132, Fire Behavior in the Wildland/ Urban Interface; NFES 2182, Introduction to Wildland Fire Suppression for Rural and Volunteer Fire Departments; and S-110, Basic Fire Suppression Orientation. Paragraph A.3.1.4.1 of NFPA 295, Standard for Wildfire Control, suggests that the minimum training in first aid include certification in cardiopulmonary resuscitation (CPR) and American Red Cross standard first aid. NFPA 1001, Standard for Fire Fighter Professional Qualifications, Section 2.3, defines the requirements for structural fire fighters. This section requires CPR certification, the demonstration of several basic first aid skills, and a knowledge of infection control methods. The AHJ responsible for individuals performing wildland fire suppression operations should set minimum requirements for first aid training and certification based on local needs and the requirements of the jurisdiction.

**A.5.1.1(B)** The requirements for protective clothing and equipment are found in NFPA 1977, *Standard on Protective Clothing and Equipment for Wildland Fire Fighting.* 

ANNEX A 1051–17

- **A.5.3.3** The tools and equipment provided to the wildland fire fighter vary from jurisdiction to jurisdiction and can include such items as fireline hand tools (shovel, ax, fire rake, Pulaski, flapper, etc.) and basic water application equipment (backpack pumps, hose, nozzles, hose clamps, and fittings, etc.).
- **A.5.3.3(B)** Maintenance equipment would include those items, such as files, sandpaper, wedges, and so forth, used to maintain fire suppression hand tools.
- **A.5.5.2(A)** Personal equipment standards, response and travel time standards, personal equipment weight limitations, and preferred modes of transportation all can vary by the AHJ.
- **A.5.5.3(A)** The safety and welfare of personnel is the first and foremost consideration in all incident operations and decisions. A wildland fire fighter must have a working knowledge of the following fire suppression safety standards and procedures:
- (1) Fire behavior (see NWCG S-190, Introduction to Fire Behavior)
- (2) 10 standard fire orders (see NFES 0065, Fireline Handbook)
- (3) 18 "watch out" situations (see NFES 0065, Fireline Handbook)
- (4) NFES 2225, Common Denominators of Fire Behavior on Tragedy and Near-Miss Forest Fires
- (5) Downhill indirect line construction guidelines (see NFES 0065, Fireline Handbook)
- (6) LCES (lookouts, communications, escape routes, and safety zones), which include the following:
  - (a) Adequate lookouts should be posted to observe potential changes in fuel, weather, topography, and fire behavior.
  - (b) Communication should be provided for and maintained with the supervisor at all times.
  - (c) Escape routes for emergency evacuation will be identified and clearly understood by all fire fighters.
  - (d) Safety zones in cleared or natural areas devoid of flammable material should be reconnoitered and/or provided for and known to all crew members.
- (7) PMS-416, Standard for Survival
- **A.5.5.4(B)** The term *agent* in this requirement refers to any suppressant or retardant that would be applied with a hose stream, including water, foam, wet water, and other retardants. See NFES 2073, *Introduction to Class A Foam;* NFES 2219, *The Properties of Foam;* and NFES 2246, *Foam vs. Fire, Class A Foam for Wildland Fires.*
- **A.5.5.5(B)** See NWCG S-130, *Fire Fighter Training*, for additional information on burning out and basic ignition devices.
- **A.6.1.1** The Wildland Fire Fighter II assists in the training of other fire fighters in the application of knowledge and skills areas, including safety and the maintenance and use of suppression tools and equipment.
- **A.6.1.1(A)** See NFES 1571, *Firefighter's Guide*, for information on using maps and compasses.
- **A.6.2.2(A)** See NFES 0065, *Fireline Handbook*, for additional information on briefing subordinates.
- **A.6.2.3** The Fire Fighter II is expected to be able to lead small groups of assigned personnel to accomplish specific tasks. Their primary responsibility is personnel safety and the timely completion of the assigned task. (See Incident Response Pocket Guide PMS-416.)

**A.6.3.2** The tools and equipment provided to the Wildland Fire Fighter II vary from jurisdiction to jurisdiction and can include such items as chain saws and portable pumps. It is not the intent of the committee that the Wildland Fire Fighter II perform specialized repair functions on power tools. For additional information, see NWCG S-211, *Portable Pumps and Water Use*, and NWCG S-212, *Wildfire Power Saws*.

- **A.6.3.3(A)** See NFES 1571, *Firefighter's Guide*, for additional information on inspection of tools and equipment.
- **A.6.5.4** See NWCG S-212, *Wildfire Power Saws*, for additional information.
- **A.6.5.4(B)** The transportation of power saws also involves the transport of flammable and combustible liquids. Wildland fire fighters should follow agency guidelines and other regulations regarding the safe transport of these materials.
- **A.6.5.5(A)** See NWCG S-211, *Portable Pumps and Water Use*, for additional information.
- **A.6.5.6** See NFES 1874, Wildfire Cause and Determination Handbook, and NFPA 1033, Standard for Professional Qualifications for Fire Investigator, for additional information.
- **A.6.5.7(A)** See LCES (Lookouts, Communications, Escape Routes, Safety Zones) in NWCG S-130, *Firefighter Training*, Unit 1, and NFES 1510, Instructor's Guide, for additional information on fireline lookouts, NWCG S-190 Instructor's Guide, and NFES 1859, *Introduction to Fire Behavior*.
- A.7.1.2 The Wildland Fire Officer I is expected to respond to media inquires on a limited basis. It is essential that the Wildland Fire Officer I can determine when to refer media requests to the proper authority within the agency. NWCG Strategic Communications for Wildland Fire Management training package (NFES 2252, Facilitator's Guide; NFES 2253, Discussion Guide; NFES 2254, Handy Reference Card and Checklist Guide; NFES 2265, Video 1: Communicating the Wildland Fire Message; NFES 2266, Video 2: Dealing Successfully with the News Media; NFES 2267, Video 3: Improving Community Relations by Managing Exceptions) provides information on this subject.
- **A.7.2.1(A)** See NWCG S-201, Supervisory Concepts and Techniques, and NFPA 1021, Standard for Fire Officer Professional Qualifications, for additional supervisory information.
- **A.7.5.1** Initial attack is the action taken by resources that are first to arrive at an incident. All wildland fires that are controlled by suppression forces undergo initial attack. The number and type of resources responding to initial attack vary depending upon fire danger, fuel type, values at risk, and other factors. Generally, initial attack involves relatively few resources and incident size is small.

Characteristics of an initial attack incident include the following:

- (1) Resources vary from a single resource to several single resources, possibly a single task force or strike team.
- (2) Normally limited to one operational period at least the containment phase. Mop-up can extend into multiple periods.
- (3) Normally does not require a written incident action plan.

  The initial attack incident commander is normally the

The initial attack incident commander is normally the most experienced fire fighter on the scene and is responsible for performing all command and general staff functions. (See Figure A. 7.5.1.)

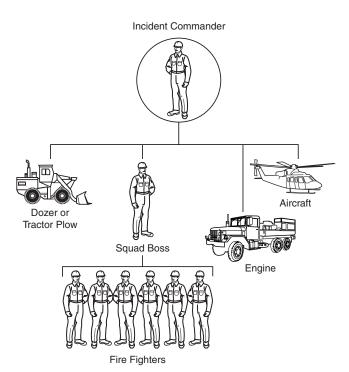


FIGURE A.7.5.1 Example of Initial Attack Organization.

## **A.7.5.2** See A.8.5.2.

**A.7.5.2(B)** Suppression priorities should consider values at risk such as life, property, natural resources, special interest areas, and so forth. Additional information about suppression resource capabilities is found in NFES 0065, *Fireline Handbook*.

**A.7.5.3** Basic information in a report should include the following:

- (1) Fire name
- (2) Location
- (3) Access
- (4) Terrain
- (5) Size of fire
- (6) Anticipated control problems
- (7) Cause (known, suspected)
- (8) Values threatened
- (9) Anticipated time of control
- (10) Weather
- (11) Resources on the fire
- (12) Resources needed, if any
- (13) Fire behavior

**A.7.5.4** In many incidents of this size, the ICP could be a vehicle or other easily identified point. The location of the ICP should be determined with due consideration given to safety, access to incoming resources, and communications needs.

**A.7.5.5(A)** The Wildland Fire Officer I is responsible for all initial attack incident activities, including the development and implementation of strategic decisions, approving the ordering and release of resources, and for coordination with other agencies, jurisdictions, and affected entities and organizations

In instances involving multiagency response, unified command can be used. Unified command is an element of an incident management system that provides a method for all agencies, or individuals who have jurisdictional or functional responsibility, to jointly manage an incident through a common set of objectives. See NFES 1466, *Unified Command* (pamphlet) and NFES 1507, *Unified Command* (video).

**A.7.5.5(B)** Additional information on the use of heavy equipment and aircraft can be found in NWCG S-213, *Tractor Use/Tractor Boss*; S-214, *Tanker Use/Tanker Boss*; S-230, *Crew Boss (Single Resource)*; S-234, *Firing Methods and Procedures*; and S-270, *Basic Air Operations*.

**A.7.5.6** Incident records should contain essential incident information such as the following:

- (1) Incident objectives and strategy
- (2) Changes in the situation
- (3) Tactical decisions
- (4) Organization
- (5) Sketch map
- (6) Safety problems and hazards
- (7) Equipment use
- (8) Other agency information needs

The ICS Form 201 (incident briefing) is an example of a format to document this information. In many initial actions, control is effected very quickly and the need for written documentation is minimal. However, in longer duration incidents, it is much more important, and, if the incident expands into an extended attack or more complex situation, good documentation is essential to provide for an efficient transition. (See Figure C.1 for recommended form.)

**A.7.5.7(A)** For additional information regarding intermediate fire behavior, see NWCG S-290, *Intermediate Wildland Fire Behavior*, and PMS 427, *Look Up*, *Look Down*, *Look Around*.

**A.7.5.9** Logistical needs for initial action incidents are usually minimal; however, some items to consider are the following:

- (1) Water supply
- (2) Fuel for equipment
- (3) Meals and drinking water

Should the initial action continue for extended periods of time, additional logistical requirements could include the following:

- (1) Sanitation facilities
- (2) Lighting
- (3) Provisions for sleeping
- (4) Relief resources

**A.7.5.15** Final incident reports could include personnel and equipment reports, personnel evaluations, financial documents, fire reports, accident forms, and post-incident evaluations as required by the AHJ.

**A.8.4.1** Multiple resources might or might not be organized into strike teams or task forces.

**A.8.5.2** The incident action plan is based on size up of the situation, including such things as the following:

- (1) Analysis of hazards to fire fighters
- (2) Estimated rates of spread
- (3) Actual and potential threat to values
- (4) Incident objectives in priority order
- (5) Strategies for protecting values and for suppressing the fire

ANNEX B 1051–19

The plan outlines the most appropriate method of attack with the resources available, including such things as the following:

- (1) Tactical directions to achieve incident objectives
- (2) A coordinated sequence of events
- (3) Resource assignments
- (4) Immediate support needs

The plan emphasizes safety information covering all hazards and relevant safety principles.

ICS Form 201 is the first written documentation for the incident and serves as a briefing document for incoming incident commanders. (See Figure C.1 for sample form.)

For information, see NFES 0065,  $\it Fireline \, Handbook$ , Chapter 2, Extended Attack.

**A.8.5.2(B)** See NWCG S-300, *Incident Commander Extended Attack*, and S-215, *Fire Operations in the Urban Interface*, for additional information.

**A.8.5.5** Early recognition that a wildland fire will not be controlled by the initial attack forces is important. As soon as the Wildland Fire Officer II recognizes that additional forces are needed or knows additional forces are en route, he or she must withdraw from direct fireline suppression and do the following:

- (1) Establish an incident command post (ICP) check-in point to receive, brief, and assign incoming forces.
- Document incident status and resource information in writing (e.g., ICS Form 201).
- (3) Sketch a map of the fire and identify resource assignments.
- (4) Document the fire organization.
- (5) Keep track of all resources that are on the scene, en route, and ordered.

- (6) Document strategy, tactics, and current actions.
- (7) If available, assign a status check-in recorder to handle this documentation when the following occurs:
  - (a) The fire is expanding rapidly.
  - (b) Numerous resources are arriving or are being ordered.
  - (c) Radio contact is constant.
- (8) Keep the designated officer, dispatch, the incoming replacement incident commander, or other higher level officer informed of the following:
  - (a) Status of the fire
  - (b) Progress of the suppression forces
  - (c) Additional resources needed
  - (d) Weather conditions, especially changes
  - (e) Special situations such as values threatened
- (9) As additional forces arrive, do the following:
  - (a) Divide the fire into areas of responsibility such as right and left flank, or Division A and Division B.
  - (b) Assign individuals responsibility for these areas.

See NFES 0065, *Fireline Handbook*, for additional information on the transition of command.

# Annex B NWCG Publications for Wildland Fire Suppression Personnel by NWCG and NFPA Job Levels

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

**B.1** Table B.1(a) and Table B.1(b) provide a comparison of NWCG Wildland Firefighter Levels and the NFPA Wildland Fire Fighter Professional Qualifications System.

Table B.1(a) NWCG Wildland Firefighter Levels

Firefighter II	Firefighter I	Single Resource Boss/ICT4	Incident Commander Type 3 STL/TFL
S-130, Firefighter Training	S-131, Advanced Fire Fighter Training	S-133, Look Up, Look Down, Look Around	S-330, Task Force/Strike Tean Leader
S-190, Introduction to Fire Behavior	S-201, Supervisory Concepts and Techniques	S-200, Initial Attack Incident Commander	S-390, Introduction to Wildland Fire Behavior Calculations
I-100, Introduction to the Incident Command System	S-211, Portable Pumps and Water Use S-212, Wildfire Power Saws	S-215, Fire Operations in the Urban Interface S-230, Crew Boss (Single Resource) S-231, Engine Boss (Single Resource) S-234, Firing Methods and Procedures S-260, Fire Business Management Principles S-270, Basic Air Operations S-290, Intermediate Wildland Fire Behavior I-200, Basic Incident Command System	

Table B.1(b) NFPA Professional Qualifications System

Wildland Fire Fighter I	Wildland Fire Fighter II	Wildland Fire Officer I	Wildland Fire Officer II
PMS-410-1, Fireline Handbook	S-131, Advanced Fire Fighter Training	S-200, Initial Attack Incident Commander	S-300, Incident Commander Extended Attack
PMS-414-1, Fire Fighter's Guide	S-133, Look Up, Look Down, Look Around	S-213, Tractor Use/Tractor Boss	S-301, Leadership and Organizational Development
PMS-416, Standards for Survival	S-201, Supervisory Concepts and Techniques	S-214, Tanker Use/Tanker Boss	S-330, Task Force/Strike Team Leader
S-110, Basic Fire Suppression Orientation	S-211, Portable Pumps and Water Use	S-215, Fire Operations in the Urban Interface	S-390, Introduction to Wildland Fire Behavior Calculations
S-130, Fire Fighter Training	S-212, Wildfire Power Saws	S-230, Crew Boss (Single Resource)	I-300, Intermediate Incident Command System
S-190, Introduction to Fire Behavior	S-216, Driving for the Fire Service	S-231, Engine Boss (Single Resource)	•
I-100, Introduction to the Incident Command System		S-234, Firing Methods and Procedures S-260, Fire Business Management Principles S-270, Basic Air Operations S-290, Intermediate Wildland Fire Behavior I-200, Basic Incident Command System P-151, Wildfire Origin and	
		Cause Determination	

ANNEX C 1051–21

# Annex C Incident Command System Briefing

**C.1** Figure C.1 is an example of an Incident Command System (ICS) briefing form.

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

ICS Form 201

		1. INCIDENT NAME	2. DATE PREPARED	3. TIME PREPARED
INCI	DENT BRIEFING		PREPARED	PREPARED
		4. MAP SKETCH		
		5. PREPARED BY [NAME AND POSITION]		
201 ICS 3-82	PAGE 1			7540-130-0282
				7 3-70 100 0202

5. RESOURCES SUMMARY							
RESOURCES ORDERED	RESOURCE IDENTIFICATION	ETA	ON SCENE	LOCATION/ASSIGNMENT			
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FIGURE C.1 Continued

ANNEX C 1051–23

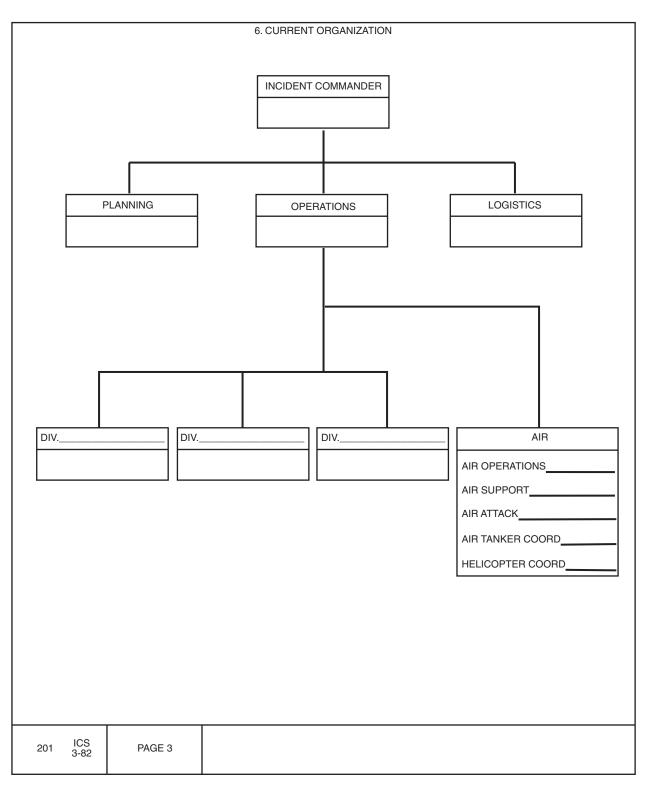


FIGURE C.1 Continued

			7. SUMMARY OF CURRENT ACTIONS
201	ICS 3-82	PAGE 4	

FIGURE C.1 Continued

ANNEX D 1051–25

# Annex D Job Performance Requirements

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

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

NFPA professional qualification standards identify the minimum JPRs for specific fire service positions. The standards can be used for training design and evaluation, certification, measuring and critiquing on-the-job performance, defining hiring practices, and setting organizational policies, procedures, and goals. (Other applications are encouraged.)

Professional qualification standards for a specific job are organized by major areas of responsibility defined as duties. For example, the fire fighter's duties might include fire suppression, rescue, and water supply, and the public fire educator's duties might include education, planning and development, and administration. Duties are major functional areas of responsibility within a job.

The professional qualification standards are written as JPRs. JPRs describe the performance required for a specific job. JPRs are grouped according to the duties of a job. The complete list of JPRs for each duty defines what an individual must be able to do in order to perform that duty successfully. Together, the duties and their JPRs define the job parameters; that is, the professional qualification standard as a whole is a job description.

- **D.2 Breaking Down the Components of a JPR.** The JPR is the assembly of three critical components. See Table D.2. These components are as follows:
- (1) Task that is to be performed
- (2) Tools, equipment, or materials that must be provided to complete the task successfully
- (3) Evaluation parameters and/or performance outcomes

# Table D.2 Example of a JPR

(1) Task	(1) Construct a fireline
(2) Tools, equipment, or	(2) Given an ax, a shovel,
materials	and other wildland hand
	tools
(3) Evaluation parameters	(3) So that a fireline was
and performance outcomes	constructed according to agency guidelines

The task to be performed. The first component is a concise statement of what the person is supposed to do.

Tools, equipment, or materials that must be provided to successfully complete the task. This component ensures that all individuals completing the task are given the same minimal tools, equipment, or materials when being evaluated. By listing these items, the performer and evaluator know what must be provided in order to complete the task.

Evaluation parameters and/or performance outcomes. This component defines how well one must perform each task — for both the performer and evaluator. The JPRs guide performance outcomes.

mance towards 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.

In addition to these three components, the JPR contains requisite knowledge and skills. Just as the term *requisite* suggests, these are the necessary knowledge and skills one must have prior to being able to perform the task. Requisite knowledge and skills are the foundation for task performance.

Once the components and requisites are put together, the JPRs might read as follows:

- **D.2.1 Example 1.** Cut a fireline through wildland vegetation, given a shovel and a Pulaski, so that a fireline one and one-half times the height of the adjacent fuel is constructed down to mineral soil.
- (A) Requisite Knowledge: Fireline construction techniques, use of hand tools, fireline safety.
- (B) Requisite Skills: Ability to use hand tools safely and ability to remove wildland fuels.
- **D.2.2 Example 2.** Interpret burn patterns, given standard equipment and tools, so that each individual pattern is evaluated with respect to the burning characteristics of the material involved.
- (A) Requisite Knowledge: Knowledge of fire development and the interrelationship of wildland fuels.
- (B) Requisite Skills: The ability to interpret the effect of burning characteristics on different wildland fuels.
- **D.3 Examples of Potential Uses Certification.** JPRs can be used to establish the evaluation criteria for certification at a specific job level. When used for certification, evaluation must be based on the successful completion of JPRs.

First, the evaluator would verify the attainment of requisite knowledge and skills prior to JPR evaluation. Verification might be through documentation review or testing.

Next, the candidate would be evaluated on completing the JPRs. The candidate would perform the task and be evaluated based on the evaluation parameters, the performance outcomes, or both. This performance-based evaluation can be either practical (for psychomotor skills such as "ventilate a roof") or written (for cognitive skills such as "interpret burn patterns").

Note that psychomotor skills are those physical skills that can be demonstrated or observed. Cognitive skills (or mental skills) cannot be observed but are evaluated on how one completes the task (process oriented) or on the task outcome (product oriented).

Using Example 1 in D.2.1, a practical performance-based evaluation would measure the ability to "ventilate a pitched roof." The candidate passes this particular evaluation if the standard was met — that is, a  $1.22\text{-m} \times 1.22\text{-m}$  ( $4\text{-ft} \times 4\text{-ft}$ ) hole was created, all ventilation barriers were removed, ladders were properly positioned for ventilation, ventilation holes were correctly placed, and smoke, heat, and combustion byproducts were released from the structure.

For Example 2 in D.2.2, when evaluating the task "interpret burn patterns," the candidate might be given a written assessment in the form of a scenario, photographs, and drawings and then be asked to respond to specific written questions related to the JPR's evaluation parameters.

It is important to remember that when a candidate is being evaluated, he or she must be given the tools, equipment, or materials listed in the JPRs before he or she can be properly evaluated.

# D.4 Curriculum Development/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 skill(s) on the job, as opposed to a learning situation. These

statements should be converted into instructional objectives with behaviors, conditions, and standards that can be measured within the teaching/learning environment. A JPR that requires a fire fighter to "ventilate a pitched roof" should be converted into a measurable instructional objective for use when teaching the skill. [See Figure D.4(a).]

Using Example 1 in D.2.1, a terminal instructional objective might read as follows:

# **JPR** The Fire Fighter I shall ventilate a pitched roof, given an ax, a pike pole, an extension ladder, and a roof ladder so that a 1.22-m $\times$ 1.22-m (4-ft $\times$ 4-ft) hole is created, all ventilation barriers are removed, ladders are properly positioned for ventilations, and ventilation holes are correctly placed. The JPR, Requisite Requisite Knowledge: Knowledge, and Requisite Pitched roof construction; safety considerations with roof ventilation; Skills are all the dangers associated with improper ventilation; knowledge of ventilation tools; the effects of ventilation on fire growth; smoke used as information from which instructional movement in structures; signs of backdraft; and the knowledge of objectives can be written. vertical and forced ventilation. Requisite Skills: JPRs may be converted into any Instructional Remove roof covering; properly initiate roof cuts; use the pike pole Objective format. For to clear ventilation barriers; use ax properly for sounding, cutting, demonstration purposes, and stripping; position ladders; and climb and position self on ladder. these examples have been written as Terminal Objectives. **EXAMPLE TERMINAL OBJECTIVES** Cognitive/Knowledge Domain Psychomotor/Skills Domain (seé sample skills checklist) The Fire Fighter shall describe the methods, The Fire Fighter shall demonstrate ventilating processes, and safety precautions to be taken a pitched roof, given the proper tools, with in order to perform ventilation on a pitched 100 percent accuracy on the skills checklist. roof in a safe manner. EXAMPLE: ENABLING OBJECTIVES (Psychomotor) **EXAMPLE: ENABLING OBJECTIVES** (Cognitive) The Fire Fighter shall list the safety precautions to be The Fire Fighter shall demonstrate removing roof taken when performing roof ventilation as stated in the "XYZ" ventilation manual, with "X" percent accuracy covering in order to prepare a roof for ventilation with 100 percent accuracy on the skills checklist. on a written evaluation. The Fire Fighter shall demonstrate the removal of ventilation obstructions (ceiling materials, insulation, etc.) in order to clear the ventilation opening with The Fire Fighter shall explain the effects of ventilation on fire growth as it relates to fire spread, intensity and movement through structures, with "X" percent 100 percent accuracy on the skills checklist. accuracy on a written evaluation. The Fire Fighter shall demonstrate the proper use of Given the conditions surrounding an incident, the Fire Fighter will identify backdraft, flashover, and other dangerous conditions created by fire and the effects of ventilation on these conditions with "X" percent fire-fighting tools used for ventilation with 100 percent accuracy on the skills checklist. accuracy on a written evaluation.

ANNEX D 1051–27

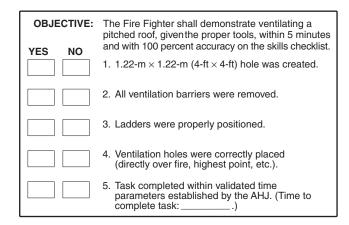


FIGURE D.4(b) Sample Skills Checklist (Roof Ventilation).

The candidate will ventilate a pitched roof, given a simulated roof, an ax, a pike pole, an extension ladder, and a roof ladder, so that 100 percent accuracy is attained on a skills checklist. (At a minimum, the skills checklist should include each of the measurement criteria from the JPR.) Figure D.4(b) is a sample checklist for use in evaluating this objective.

Although the differences between job performance requirements and instructional objectives are subtle in appearance, the purpose of each statement differs greatly. JPRs state what is necessary to perform the job in the "real world." Instructional objectives, however, 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 will be able to clarify performance expectations and avoid confusion related to using statements designed for purposes other than teaching. Additionally, instructors will be able to add local/state/regional elements of performance into the standards as intended by the developers.

Requisite skills and knowledge should be converted into enabling objectives. These help to define the course content. The course content should include each of the requisite knowledge and skills. Using Figure D.4(b), the enabling objectives are pitched roof construction, safety considerations with roof ventilation, remove roof covering, proper initiation roof cuts, and so forth. These enabling objectives ensure that the course content supports the terminal objective.

Note that it is assumed that the reader is familiar with curriculum development or training design and evaluation.

- **D.5 Other Uses.** While the professional qualifications standards are principally used to guide the development of training and certification programs, there are a number of other potential uses for the documents. Because they are written in JPR terms, they lend themselves well to any area of the profession where a level of performance or expertise must be determined. These areas might include the following:
- (1) Employee Evaluation/Performance Critiquing. The JPRs 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 when those tasks are completed.
- (2) Establishing Hiring Criteria. Professional qualifications standards can be used in a number of ways to further the

establishment of hiring criteria. The AHJ could simply require certification at a specific job level (e.g., Fire Fighter I). The JPRs could also be used as the basis for preemployment screening by establishing 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 useful to both the employee and the employer in developing a plan for the individual'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 or career pathing addresses the efficient placement of people into jobs in response to current needs and anticipated future needs. A career development path can be established for targeted individuals to prepare them for growth in the organization. The JPRs and requisite knowledge and skills could then be used to develop an educational path to aid in the individual's advancement in the organization or profession.
- (5) Establishing Organizational Policies, Procedures, and Goals. The JPRs can be incorporated into organizational policies, procedures, and goals where employee performance is addressed.

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# Annex E Wildland/Urban Interface Protection Specialist Task Book

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

**E.1** Figure E.1 is an example of a Task Book used to define the expected performance of the position of Wildland/Urban Protection Specialist.

Task Book Assigned to	
	Phone number:
Task Book Initiated by	
Official's name and title:	
Outy station:	Phone number:
ocation and date that task book was initiated:	
VERIFICATION/CERTIFICATION OF C	COMPLETED TASK BOOK FOR THE POSITION OF
Final Evaluator's Verification	
verify that all tasks have been performed and are com	nplete with signatures. I also verify that
has performed as a trainee	e and should therefore be considered for certification in this position
Evaluator's signature:	Date:
	Date:
Evaluator's printed name and title:	
Evaluator's printed name and title:  Duty station:	
Evaluator's printed name and title:  Duty station:  Agency Certification	Phone number:
Evaluator's printed name and title:  Duty station:  Agency Certification  certify that	Phone number:
Evaluator's printed name and title:  Duty station:  Agency Certification  certify that	Phone number:
Agency Certification  certify that  consistion and that such qualification has been issued.	Phone number: has met all requirements for qualification in this
Evaluator's printed name and title:  Duty station:  Agency Certification  Certify that  position and that such qualification has been issued.  Certifying official's signature:	Date: Phone number: has met all requirements for qualification in this Date:
Evaluator's printed name and title:  Duty station:  Agency Certification  I certify that  position and that such qualification has been issued.  Certifying official's signature:  Certifying official's name and title:	Phone number: has met all requirements for qualification in this base Date:
Covaluator's printed name and title:  Duty station:  Agency Certification  certify that  Dosition and that such qualification has been issued.  Certifying official's signature:  Certifying official's name and title:  Duty station:  The material contained in this book accurately defines the	Phone number:  has met all requirements for qualification in this  Date:  Phone number:
Agency Certification  certify that	Phone number:  has met all requirements for qualification in this  Date:  Phone number:  e performance expected of the position for which it was developed. This
Evaluator's printed name and title:	Phone number:  has met all requirements for qualification in this  Date:  Phone number:  e performance expected of the position for which it was developed. This locument in accordance with the instructions contained herein.  his publication may be ordered from: epartment, Fire Management Division
Evaluator's printed name and title:	Phone number:  has met all requirements for qualification in this  Date:  Phone number:  e performance expected of the position for which it was developed. This locument in accordance with the instructions contained herein.  his publication may be ordered from:

FIGURE E.1 Structure Protection Handbook.

ANNEX E 1051–29

# THE ARIZONA STATE LAND DEVELOPMENT FIRE MANAGEMENT DIVISION POSITION TASK BOOK

This Position Task Book (PTB) has been developed for the position of Structure Protection Specialist within the State of Arizona. The PTB lists the performance requirements (tasks) for this position in a format that allows a trainee to be evaluated against written guidelines. Successful performance of all tasks, as observed and recorded by a qualified evaluator, will result in a recommendation to the agency that the trainee be certified in that position.

Evaluation and confirmation of the individual's performance of all tasks may involve more than one evaluator and can occur on incidents, in a classroom simulation, and in other work situations. Designated PTBs require position performance during which a majority of required tasks are demonstrated on a single incident. This position also requires that specific tasks be performed on a wildland fire—performance of these tasks on other types of incidents are NOT qualifying. It is important that performance be critically evaluated and accurately recorded by each evaluator. All tasks must be evaluated. All statements within a task which require an action (contain an action verb) must be demonstrated before that task can be signed off.

# Responsibilities:

1.	The <b>Local Office</b> is responsible for:
	Selecting trainee based on the needs of the local office and the geographic area.
	Ensuring that the trainee meets the training and qualification requirements required to perform as a Strike-Team or Task-Force Leader (reference WFQS 310-1).
	Issuing PTBs to document task performance.
	Explaining to the trainee the purpose and processes of the PTB as well as the trainee's responsibilities.
	Providing opportunities for the evaluation and/or making the trainee available for evaluation.
	Providing an evaluator for local assignments.
	Tracking progress of the trainee.
	Confirming PTB completion.
	Determining certification per local policy.
	Issuing proof of certification.
2.	The <b>Individual</b> is responsible for:
	Reviewing and understanding instruction in the PTB.
	Identifying desired objectives/goals and assuring the Evaluation Record is complete.
	Providing background information to an evaluator.
	Satisfactorily demonstrating completion of all tasks for an assigned position within three years.
	Notifying local office personnel when the PTB is completed and providing a copy.
	Keeping the original PTB in personal records.
3.	The <b>Evaluator</b> is responsible for:
	Being qualified and proficient in the position being evaluated.
	Meeting with the trainee and determining past experience, current qualifications, and desired objectives/goals.
	Reviewing tasks with the trainee and identifying tasks to be performed during the evaluation period.
	Explaining the evaluation procedures to be utilized and which objectives may be attained.
	Accurately evaluating and recording the tasks performed. Initialing and dating tasks that were satisfactorily performed and documenting unsatisfactory performance in the Evaluation Record.
	Completing the Evaluation Record found at the end of each PTB.
	Signing the verification statement inside the front cover of the PTB when all tasks have been initialed.
4.	The <b>Training Specialist</b> is responsible for:
	Identifying incident evaluation opportunities, documenting the assignment, conducting progress reviews, and conducting close-out interviews to ensure documentation is proper and complete.
	—— Providing PTBs and an evaluator that can provide a positive experience and honest appraisal of an approved trainee's performance.
	(NFPA 1051, 2 of 6)

FIGURE E.1 Continued

# **QUALIFICATION RECORD**

 $POSITION: Structural\ Protection\ Specialist\ (STPS)$ 

Task	Code*	Evaluation Record #	Evaluator: Initial & date upon completion of task
GENERAL			
1. Obtain and assemble information and materials needed for this technical specialist position in a kit. The kit will be assembled and prepared prior to receiving an assignment. The kit will contain critical items needed for functioning during the first 48 hours. The kit will be easily transported and within the agency weight limitation (per National Mobilization Guide). The operational STPS kit should include but is not limited to the following.	0		
Fireline Handbook with Appendices B and CCorrespondence logsBlank structure protection plans and triage checklist formsProperty loss/damage reportsEmergency Response Guide - Hazardous MaterialsTime reports (CTR, FTR, etc.)Emergency equipment shift ticketsUnit logs (ICS 214) and file foldersRibbon/flagging - various colorsProgrammable radio, flashlight, compass, cameraPens, pencils, highlighters, ruler, paper clips, stapler, calculatorClipboard and pads of paper (lined, unlined, and graph)Risk mgmt: (workmans comp., CA1 and accident forms)Personal effects (PPE, red pack, etc.) IF AVAILABLEGPS, cellular phone, pager, and binoculars			
Establish and maintain positive interpersonal and interagency working relationships.  Through briefings, discuss EEO, civil rights, harassment, and other sensitive issues with assigned personnel  Provide equal assignment opportunities based on individual skill level  Ensure differences in agency values and policies that affect the operation are arbitrated in a manner that fosters continuous positive working relationships	0		
MOBILIZATION			
3. Obtain complete information from dispatch upon initial activation.	I		
*Code: O = Task can be completed in any situation (classroom, simulation, pr I = Task must be performed on an incident (flood, fire, search & rescu W = Task must be performed on a wildfire incident. /R = Rare event—the evaluation assignment may not provide an oppormay interview the trainee or relate this to an I or W task.	e, etc.).		valuator

(NFPA 1051, 3 of 6)

FIGURE E.1 Continued