

NFPA

1003

# AIRPORT FIRE FIGHTER PROFESSIONAL QUALIFICATIONS 1978



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**NATIONAL FIRE PROTECTION ASSOCIATION**

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**See Official NFPA Definitions at the back of this pamphlet.**

**National Professional Qualifications System**

established by the

**Joint Council of  
National Fire Service Organizations**

Constituent Members of the  
**Joint Council of National Fire Service Organizations**  
Fire Marshals Association of North America  
International Association of Arson Investigators  
International Association of Black Professional Fire Fighters  
International Association of Fire Chiefs  
International Association of Fire Fighters  
International Fire Service Training Association  
International Municipal Signal Association  
International Society of Fire Service Instructors  
Metropolitan Committee of International Association of  
Fire Chiefs  
National Fire Protection Association

The Joint Council of National Fire Service Organizations consists of leaders of the principal national organizations representing the Fire Service of the United States. It meets periodically to review current developments and to establish areas of common interest where cooperative efforts of member organizations can be used for maximum results.

An important step in the establishment of national standards of professional competence for the fire service was taken by the Joint Council on October 25, 1972.

The Council decided that one area of common interest in which national collective action was desirable was in the establishment of standards upon which the levels of competency within the fire service could be determined.

A committee of the Council was delegated the responsibility of preparing an acceptable system for the development of the standards. Following several months of work, during which the suggestions of constituent organizations were incorporated, the Committee submitted the final proposal to the Joint Council and the following system was approved and established:

1. Committees to develop standards of professional competency, made up of peer group representation; and
2. An independent Board to oversee and validate standards developed and the implementation of such standards in a nationally coordinated continuing professional development program for the fire service.

The Secretariat for Committees and Board is to be provided by the staff of the National Fire Protection Association.

## **1. Fire Service Professional Standards Development Committees**

There are four committees, each of which is made up of representatives of organizations which are constituent members of the Joint Council and certain other persons nominated by the Joint Council, collectively.

The four committees are respectively responsible for the development and preparation of recommended minimum standards of professional competence required of:

1. Fire Fighters
2. Fire Inspectors and Investigators
3. Fire Service Instructors
4. Fire Service Officers.

Each committee is established and operated under NFPA standards making procedures with one important variation, which is that no draft standard shall be submitted to NFPA for final adoption until it has been approved by the National Professional Qualifications Board for the Fire Service.

Standards are prepared for use after final adoption as a basis for nationally standardized examinations by authorized agencies and the standards are available for adoption by federal, state and local authorities.

Committees do not determine, or become involved in, actual certification procedures or the direct implementation of the standards; they do assist implementing agencies by a continuing review and revision of the standards.

The authorized representation on each committee is as follows:

### **1. Fire Fighter Qualifications Committee**

International Association of Fire Chiefs	3 persons
International Association of Fire Fighters	3 persons
International Association of Black Professional Fire Fighters	3 persons
International Fire Service Training Association	3 persons
International Society of Fire Service Instructors	3 persons
National Fire Protection Association	3 persons
Joint Council of National Fire Service Organizations	3 persons

### **2. Fire Inspector and Investigator Qualifications Committee**

Fire Marshals Association of North America	2 persons
International Association of Arson Investigators	2 persons
International Association of Fire Chiefs	2 persons
International Association of Fire Fighters	2 persons
National Fire Protection Association	2 persons
Joint Council of National Fire Service Organizations	3 persons

### **3. Fire Service Instructor Qualifications Committee**

International Association of Fire Chiefs	2 persons
International Association of Fire Fighters	2 persons
International Fire Service Training Association	2 persons
International Society of Fire Service Instructors	2 persons
National Fire Protection Association	2 persons
Joint Council of National Fire Service Organizations	3 persons

### **4. Fire Service Officer Qualifications Committee**

Fire Marshals Association of North America	3 persons
International Association of Fire Chiefs	3 persons
International Association of Fire Fighters	3 persons
International Association of Black Professional Fire Fighters	3 persons
International Society of Fire Service Instructors	3 persons
Metropolitan Committee of International Association of Fire Chiefs	3 persons
National Fire Protection Association	3 persons
Joint Council of National Fire Service Organizations	3 persons

## **2. National Professional Qualifications Board for The Fire Service**

A nine-person Board appointed by the Joint Council to act on behalf of the Council in the following duties and responsibilities:

- (i) The Board is constituted to supervise a nationally coordinated continuing professional development program for the Fire Service.
- (ii) The Board shall be responsive to the needs and opinions of all groups involved with the Fire Service and of others, including individuals who have related interests.
- (iii) It shall identify and define levels of professional progression.
- (iv) It shall correlate, review and validate draft standards prepared by the Technical Committees established to produce professional standards for each level of fire service responsibility.
- (v) It shall approve all draft standards before such are submitted for final adoption procedures.
- (vi) It shall be responsible for the accreditation and supervision of any national programs of certification and shall coordinate with implementing agencies to ensure validity and reliability of the evaluation criteria used in connection with such programs.

## CURRENT COMPOSITION OF THE BOARD

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## **STATEMENT BY THE BOARD AS TO THE APPLICABILITY OF STANDARDS DEVELOPED UNDER THE SYSTEM**

### **Application to Existing Positions**

It is not the intent of the Board that these standards shall have the effect of rendering invalid any rank, qualification and appointment acquired prior to the adoption of this standard.

Upon adoption of any standard, the authority having jurisdiction shall classify its existing ranks, qualifications, and appointments to determine equivalency with an appropriate level of the standard.

An incumbent of a position established prior to adoption of a standard shall be considered qualified and eligible for future progression in accordance with the standards.

### **Existing Systems**

Those existing systems of qualifications which meet or exceed these minimum standards should continue in force.

It is the intent, however, that existing systems of qualifications which fail to meet these standards be discontinued after adoption of the standard, so that all persons acquiring qualification thereafter do so in accordance with this standard.

The Board recognizes that, at present, wide variations exist in the standards of competence required of members of the fire service; and that due to geographic considerations and the differing requirements of the many organizations providing fire protection, higher levels of competence than those provided in the standards produced under the National System may be desirable in certain areas.

The Board considers it essential that all members of the fire service eventually achieve the minimum standards.

### **Performance Objectives**

The Board directed all committees to develop standards in terms of terminal performance objectives, which are considered the *minimum* necessary for a person to be considered competent to engage in providing fire service at the respective level and in the role specified by the standard, no matter where that person is serving.

In this connection, it is pointed out that the statement of performance objectives contained in the standards is not a training program outline. A number of instructional steps are required for mastery of an objective. Teaching outlines will be more detailed and extensive, as a single objective can require many hours of instruction and may interrelate to instruction for other objectives.



## **The Standards**

The standards are designed so that any member of the fire service can achieve the level required by various means; these include participation in state and local training programs, self-study, attendance at colleges offering suitable courses, and by combinations of these means.

The standards are the first step: there must also be a controlled testing procedure by which personnel can be officially certified when they have demonstrated their competency. The Board stresses that such testing procedures are essential to a meaningful program of professionalism and, accordingly, is prepared, in conformance with the directions of the Joint Council of National Fire Service Organizations, to review the validity and quality of testing procedures established by state and local authorities, and to accredit such procedures.

The Board strongly recommends that certification procedures be established on a statewide basis in every state where no such system exists at present, and that every fire department participate in the program.

The establishment of standards and testing procedures will not, in themselves, ensure that all personnel will achieve the required levels of competency. It follows that training programs should be developed to prepare members of the fire service to acquire the skills and knowledge necessary to achieve the terminal performance objectives of the standards.

Throughout the standards, levels of numerical ascending sequence have been used to denote increasing degrees of responsibility: e.g., Fire Fighter I, II, III, the lowest or basic level being I. A similar sequence will be used in each standard; the total number of levels varying in accordance with the number of steps involved in the individual standard.

## **Approval of Standard**

The final draft of NFPA 1003, *Standard for Airport Fire Fighter Professional Qualifications*, was approved by the National Professional Qualifications Board for the Fire Service on the 17th day of May, 1978, with the recommendation that it be submitted for adoption at the NFPA Fall Meeting to be held in Montreal, Quebec, Canada in November, 1978.

*(The foregoing is not part of the standard.)*



# Airport Fire Fighter Professional Qualifications

NFPA 1003



# **Standard for Airport Fire Fighter Professional Qualifications**

**NFPA 1003-1978**

## **1978 Edition of NFPA 1003**

This is the first edition of the Airport Fire Fighter Professional Qualifications Standard. It was approved by the National Fire Protection Association on November 14, 1978 at the Fall Meeting in Montreal, Quebec, Canada upon the recommendation of the Professional Qualifications Standards for Fire Fighter Committee. It was released by the Standards Council on December 4, 1978.

## **Origin and Development of NFPA 1003**

On December 14, 1972 the National Professional Qualifications Board for the Fire Service directed the chairman of four technical committees to develop minimum standards for each of the following areas: fire fighter, fire instructor, fire investigator and inspector, and fire officer.

In compliance with this directive, the Fire Service Professional Development Committee met in several general sessions during 1976, 1977, and 1978. Initial work on the standard started in 1973.

This standard is the third in a series of Fire Fighter Professional Qualifications Standards. The format and philosophy of this standard are intended to be compatible with NFPA 1001, *Fire Fighter Professional Qualifications*, and NFPA 1002, *Fire Apparatus Driver/Operator Professional Qualifications*.

The intent of the committee was to develop performance standards in such a clear and concise manner that they can be used to determine, without doubt, that any person so measured does truly possess the skills to be an airport fire fighter. The committee further contends that these performance objectives can be used in any fire department in any city, town, or private organization throughout the North American continent.

## Committee for Fire Service Professional Standards Development for Fire Fighter Qualifications

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*This list represents the membership at the time the committee was balloted on the text of this edition. Since that time, changes in the membership may have occurred.*

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## **Standard for Airport Fire Fighter Professional Qualifications**

**NFPA 1003-1978**

*NOTICE: An asterisk (\*) following the number or letter designating a subdivision indicates explanatory material on that subdivision in Appendix A.*

### **Chapter 1 Administration**

**1-1 Scope.** This standard identifies the professional level of competence required of the Airport Fire Fighter.

**1-2\* Purpose.** The purpose of this standard is to specify, in terms of performance objectives, the minimum requirements of professional competence required for service as an Airport Fire Fighter.

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

#### **1-3 General.**

**1-3.1\*** The Fire Fighter shall meet the requirements of Fire Fighter II as specified in NFPA 1001-1974, *Fire Fighter Professional Qualifications*, before being certified as an Airport Fire Fighter.

**1-3.2** The Fire Fighter shall meet all the requirements of this standard before being certified as an Airport Fire Fighter.

**1-3.3** Each of the performance objectives for the Airport Fire Fighter shall meet the following criteria: it shall be performed swiftly, safely, and with competence. Each objective shall be met in its entirety.

**1-3.4** It is not required for the objectives to be mastered in the order they appear. The local or state training program shall establish the instructional priority and the training program content to prepare individuals to meet the performance objectives of this standard.

**1-3.5** Performance of objectives for qualification covered by this standard shall be evaluated by three approved individuals from the fire service, one of whom may be from the state or regional fire service training agency.

**1-3.6 Performance of objectives for qualification,** when the word “demonstrate” is used in this standard, shall require that actual performance and operation be accomplished, unless otherwise indicated within the specific objective. Simulation, explanation, and illustration may be substituted when actual operation is not feasible.

**1-3.7** Wherever in this standard the terms “rules, regulations, procedures, supplies, apparatus and equipment” are referred to, it is implied that they are those of the authority having jurisdiction.

#### **1-4 Definitions.**

**1-4.1 Airport Fire Fighter.** The Fire Fighter II who has demonstrated the knowledge of and the ability to perform the objectives specified in this standard.

**1-4.2 Aircraft Incident.** An occurrence of any kind involving an aircraft in which the aircraft or persons, or both, are endangered, and where intervention by airport emergency services is required.

**1-4.3 Demonstrate.** To show by actual use. This may be supplemented by, or, when actual use is not feasible, replaced by simulation, explanation, illustration, or a combination of these.

**1-4.4 Fire Fighter II.** The member of a fire department or a fire brigade who has fulfilled the requirements of Fire Fighter II, as specified in NFPA 1001-1974, *Fire Fighter Professional Qualifications*.

**1-4.5 Identify.** To physically select, indicate, or explain verbally or in writing, using standard terms recognized by the fire service.

**1-4.6 Objective.** A goal that is achieved through the attainment of a skill, knowledge, or both, which can be observed or measured.

**1-4.7 Qualified.** Having satisfactorily completed the requirements of the objectives.

**1-4.8 Safely.** To perform the objective without injury to self or to others, or damage to fire department vehicles and equipment.

**1-4.9 Swiftly.** The time, as determined by the authority having jurisdiction, that it takes a qualified Airport Fire Fighter to perform the objective satisfactorily.

**1-4.10 With Competence.** Possessing knowledge, skills, and judgment needed to perform indicated objective satisfactorily.

## **Chapter 2 Science of Fire**

**2-1\* General.** The Airport Fire Fighter shall identify the characteristics and classification of flammable liquids and combustible metals common to airports and aircraft.

## **Chapter 3 Airport Familiarization**

### **3-1 General.**

**3-1.1** The Airport Fire Fighter shall identify the airport runway numbering system.

**3-1.2** The Airport Fire Fighter shall identify the airport taxiway identification system.

**3-1.3** The Airport Fire Fighter shall identify control of vehicle movements on runways and taxiways by the airport control tower.

**3-1.4** The Airport Fire Fighter shall identify the color code system for airport onfield lighting.

**3-1.5** The Airport Fire Fighter, given a map of the airport, shall identify all motor vehicle traffic routes and the traffic flow system of the airport, including vehicle parking and storage areas.

**3-1.6** The Airport Fire Fighter, given a map of the airport and vicinity, shall identify all runways, their length and direction; access roads; routes; taxiways; aircraft parking areas; and vehicles permitted access to those areas.

**3-1.7** The Airport Fire Fighter shall identify runway barriers, breakaway fences, and explain their location, purpose, and manner of operation.

**3-1.8** The Airport Fire Fighter shall identify the functions of the airport control tower, as it relates to airport fire protection.

**3-1.9** The Airport Fire Fighter, given specific locations both on and off airport property, shall identify the shortest and safest travel routes to the locations.

**3-1.10** The Airport Fire Fighter shall identify the airport security system and restricted access security areas.

**3-1.11** The Airport Fire Fighter, given a map of the airport, shall identify buildings, their construction, occupancy, general use, and utility controls.

**3-1.12** The Airport Fire Fighter shall identify the fuel distribution systems of the airport.

**3-1.13** The Airport Fire Fighter shall identify the drainage systems of the airport.

**3-1.14** The Airport Fire Fighter shall identify the hazardous materials areas of the airport, and explain the inherent hazards of each respective area.

**3-1.15** The Airport Fire Fighter shall identify and demonstrate the reference materials and publications related to the airport fire department.

## Chapter 4 Aircraft Familiarization

### 4-1 General.

**4-1.1** The Airport Fire Fighter shall identify all types of private, commercial, and military aircraft that use the airport protected by the authority having jurisdiction.

**4-1.2\*** The Airport Fire Fighter shall identify color coding and symbol systems for aircraft piping.

**4-1.3** The Airport Fire Fighter shall demonstrate operation of all normal and emergency exits and escape devices on all aircraft identified in 4-1.1.

**4-1.4** The Airport Fire Fighter, given aircraft as identified in 4-1.1, shall identify forcible entry points.

**4-1.5** The Airport Fire Fighter, given aircraft as identified in 4-1.1, shall identify and locate fuel and oxygen tanks.

**4-1.6** The Airport Fire Fighter, using aircraft terminology, shall identify aircraft construction as it relates to rescue and fire fighting with the aircraft identified in 4-1.1.

**4-1.7** The Airport Fire Fighter shall identify all aircrew and passenger positions in the military and commercial aircraft identified in 4-1.1.

**4-1.8** The Airport Fire Fighter shall identify facts and principles about explosive devices used in canopy and seat ejection mechanisms.

**4-1.9** The Airport Fire Fighter shall demonstrate shutting off or disconnecting the following aircraft systems:

- (a) Engines
- (b) Batteries
- (c) Oxygen.

**4-1.10** The Airport Fire Fighter shall demonstrate inserting the appropriate safety pins to secure aircraft landing gear as identified in 4-1.1.

**4-1.11** The Airport Fire Fighter shall identify the following devices that may be present at an incident, and explain the dangers of each device:

- (a) Initiators
- (b) Rotary actuators
- (c) Thrusters
- (d) Explosive squibs
- (e) Armament systems
- (f) Destruct systems.

## **Chapter 5 Personnel Protective Equipment**

### **5-1 General.**

**5-1.1** The Airport Fire Fighter shall identify the component parts and specific types of all proximity protective clothing used by the authority having jurisdiction.

**5-1.2\*** The Airport Fire Fighter shall identify the advantages and limitations of reflective proximity protective clothing for aircraft fire fighting as compared to structural protective clothing.

**5-1.3** The Airport Fire Fighter, given a set of proximity protective clothing, shall don and wear the protective clothing with and without protective breathing apparatus.

**5-1.4** The Airport Fire Fighter shall demonstrate the care and maintenance of proximity protective clothing, in accordance with manufacturer's technical data.

## **Chapter 6 Forcible Entry**

### **6-1 General.**

**6-1.1** The Airport Fire Fighter, given forcible entry tools and a simulated aircraft fuselage, shall demonstrate size of openings for forcible entry, where to locate these openings, and what precautions should be taken in accordance with manufacturer's technical data and established forcible entry procedures.

**6-1.2** The Airport Fire Fighter shall identify where to make emergency openings for entry into all types of aircraft identified in 4-1.1 in accordance with manufacturer's technical data and established forcible entry procedures.



## **Chapter 7 Ventilation**

### **7-1 General.**

**7-1.1** The Airport Fire Fighter, given aircraft identified in 4-1.1, shall demonstrate natural and forced horizontal and vertical ventilation using normal and emergency openings.

**7-1.2** The Airport Fire Fighter shall identify how to determine the size of an opening for ventilation, where to locate these openings, and what precautions to be taken during ventilation of an aircraft.

## **Chapter 8 Fire Hose, Nozzles, and Appliances**

### **8-1 General.**

**8-1.1** The Airport Fire Fighter, given any airport fire service vehicle, shall identify the location and demonstrate the use of all types of tools, nozzles, and other equipment carried on that vehicle.

**8-1.2** The Airport Fire Fighter, given an airport fire fighting vehicle, shall identify the sizes, types, amounts, and use of hose carried on the vehicle.

**8-1.3** The Airport Fire Fighter, given an airport fire fighting vehicle, shall identify the use of hose adaptors and hose appliances carried on the vehicle.

## **Chapter 9    Rescue**

### **9-1    General.**

**9-1.1**    The Airport Fire Fighter shall identify the procedures for the evacuation, removal, and care of persons from the hazard area.

**9-1.2**    The Airport Fire Fighter shall identify procedures for the securing of an aircraft incident area.

**9-1.3**    The Airport Fire Fighter, given aircraft or simulated aircraft as identified in 4-1.1, shall demonstrate searching for victims inside and outside the aircraft.

**9-1.4**    The Airport Fire Fighter, given aircraft or simulated aircraft as identified in 4-1.1, shall demonstrate the removal of victims from inside the aircraft to a safe area through normal and emergency exits, and forced entry points.

**9-1.5**    The Airport Fire Fighter using power rescue equipment shall demonstrate the extrication of a victim from an aircraft incident.

## **Chapter 10 Fire Fighting Operations**

### **10-1 General.**

**10-1.1** The Airport Fire Fighter shall identify fire fighting hazards common to aircraft fire fighting and the procedures to be followed.

**10-1.2\*** The Airport Fire Fighter shall demonstrate hand signals used in aircraft fire fighting operations.

**10-1.3** The Airport Fire Fighter shall identify foaming operations for airport runways.

**10-1.4** The Airport Fire Fighter shall identify the fire suppression sequence for aircraft fires on all aircraft identified in 4-1.1, including: response, size-up, approach, vehicle position, attack, rescue, extinguishment, salvage, and overhaul as related to each fire fighter's position.

**10-1.5** The Airport Fire Fighter, given an airport-type foam fire fighting vehicle(s), shall demonstrate the control and extinguishment of a simulated aircraft fire using handlines and mounted stream devices.

**10-1.6** The Airport Fire Fighter, given an airport fire fighting vehicle(s), shall demonstrate using fire streams to protect fire fighters and rescue teams.

**10-1.7** The Airport Fire Fighter, given an airport dry chemical-type fire fighting vehicle(s), shall demonstrate control and extinguishment of a simulated aircraft fire using handlines and mounted stream devices.

**10-1.8** The Airport Fire Fighter, given an airport CO<sub>2</sub>-type fire fighting vehicle(s), shall demonstrate control and extinguishment of a simulated aircraft fire using handlines and mounted stream devices.

**10-1.9** The Airport Fire Fighter shall identify the airport response procedures and vehicle positioning for in-flight emergencies including:

- (a) Tire or landing gear failure
- (b) Brakes and hydraulic power loss
- (c) Other incidents peculiar to the aircraft as identified in 4-1.1.

**10-1.10** The Airport Fire Fighter shall identify the airport response procedures and vehicle positioning for maintenance activities and other situations including:

- (a) Welding and cutting
- (b) Abnormal fueling transfers
- (c) Defueling
- (d) Green engine starts
- (e) Hot brakes.

**10-1.11** The Airport Fire Fighter shall identify the airport response procedures and vehicle positioning for aircraft crashes or fires.

**10-1.12** The Airport Fire Fighter shall identify pre-fire plan response and procedures for both on- and off-airport incidents for aircraft and structural fires.

**10-1.13** The Airport Fire Fighter shall demonstrate each activity and responsibility for every position on all fire fighting and rescue vehicles during a simulated aircraft fire including response, size-up, approach, vehicle position, attack, rescue, extinguishment, salvage, and overhaul.

**10-1.14** The Airport Fire Fighter shall demonstrate procedures for rapid resupply of agents to aircraft fire fighting vehicles for extended operations.

## **Chapter 11 Fire Alarm and Communications**

### **11-1 General.**

**11-1.1\*** The Airport Fire Fighter shall demonstrate the phonetic alphabet as used in airport communications.

**11-1.2\*** The Airport Fire Fighter shall demonstrate standard terminology used in airport communications.

**11-1.3** The Airport Fire Fighter shall demonstrate prescribed airport radio procedures for the fire department.

**11-1.4** The Airport Fire Fighter shall demonstrate the rewinding, resetting, or both, of any fire alarm boxes or devices in the airport fire alarm system.