

DEPARTMENT OF PUBLIC SAFETY FIRE STANDARDS COUNCIL



APPRENTICE FIREFIGHTER CERTIFICATION PROGRAM

Fire Standards Council
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State of Alaska
Apprentice Firefighter Certification Program

Background

Recruiting and maintaining Firefighters is a challenge for departments around the state. In rural communities the number of trained personnel can fluctuate to a point that the department is unable to safely respond. By recruiting and training high school age (16-18) students a department is not only developing their future firefighters but ensuring longevity and stability of the department.

The purpose of this standard and certification program is to create a systematic and controlled approach to mentoring and teaching the next generation of Firefighters. While the Fire Explorer Program from Learning for Life has an excellent program many small departments are excluded because they can not meet the numbers for membership (6) and or the adult supervisors (3) or associated costs. The Apprentice Firefighter program is not meant to replace the Explorer program but to give clear direction to departments and enhance the programs of departments regardless if they are using the Explorer program or not. The following Firefighter Apprentice program could benefit all departments regardless of size or number of participants.

The Apprentice Firefighter program also creates a standardized system that would allow the participant to continue participation if they move from one community to another. Further this Apprentice Firefighter program strengthens a community's sustainability by developing

- **A sense of public service** through a process of developing skills needed and the desire to help others, respect for the basic rights of others, and the empathy for others;
- **Teamwork** building through cooperative effort by the members of a group to achieve the common goal;
- **Leadership** development through an understanding of the individual responsibility to provide leadership to the community, society and others, and enhancement of individual pride in Americans' rights and the nation's potential;
- **Social development** toward enhancement of stable personal values, skills in dealing with people, and a heightened sense of family and community responsibility;
- **Enhanced fitness**, both physical and mental;
- **Career exploration** as a means for gaining better understanding and appreciation of the nation's social, economic and governmental systems, while gaining insight and practical experience in careers; and
- **Outdoor activities** providing a degree of self-reliance based on courage, initiative, and resourcefulness, and an understanding and appreciation of the value of the natural resources and the environment.

Certification Program

The Apprentice Firefighter certification program is based on the State of Alaska Basic Firefighter Certification program and

Basic Requirements for Apprentice Firefighter Certification

- a. Applicant must be at least 16 years old
- b. Applicant must complete a TEB approved training program for Apprentice Firefighter
- c. Applicant must complete the TEB written exam with a score of 70% or higher
- d. Applicant must successfully complete the TEB practical exam for Apprentice Firefighter

Approved Apprentice Firefighter Training Courses

To take the certification exam for Apprentice Firefighter, applicants must have completed a TEB approved training course. These training courses may be offered through TEB, through an accredited training program with an approved curriculum; or through other “stand alone” courses that have been prior approved by TEB. If a particular entity is interested in conducting a TEB approved course they must follow the requirements of the Accreditation and Course Approval manual. Applicants may not use courses for certification if the course has not received prior approval from The Training and Education Bureau.

Testing Elements for Certification

All applicants for certification must complete both a written and practical examination after completing the approved training course. The written exam is 25 multiple-choice questions. The practical exam follows the TEB approved skill sheets for Apprentice Firefighter.

Personal Background Checks

A criminal history background check is not required for certification as an Apprentice Firefighter.

Re-certification

There is no expiration period for the Apprentice Firefighter. It is anticipated that the certified Apprentice Firefighter will continue to maintain their training and education so as to keep their skills at the same level, or above, as on their certification date.

Reciprocity/Challenge

There will be no reciprocity given for the Apprentice Firefighter certification. It is not

IFSAAC Certification

The Apprentice Firefighter program is not certified by the International Fire Service Accreditation Congress.

Conversion Program

There is not a Conversion Program for the Apprentice Firefighter program.

Alaska Apprentice Firefighter Standard

1-1

General

Utilizing a modified version of the NFPA 1001 (National Fire Protection Association, Standard for Fire Fighter Professional Qualifications) this training standard defines fire prevention techniques and basic fire suppression skills necessary to training for certification as an Alaska Apprentice Firefighter. This standard is designed to give the students the skills and knowledge to assist their department in maintaining an active fire fighting and fire prevention force in their communities.

The purpose of this guideline shall be to provide a process for conducting fire training evolutions for Apprentice Firefighters to ensure that they are conducted in safe facilities and that the exposure to health and safety hazards for the Apprentice Fire Fighters receiving the training is minimized and to assist Fire Departments in developing a systematic training program for Apprentice Firefighters.

Before conducting fire training with Apprentice Firefighters it is recommended that the Fire Department;

1. Consult the community's Risk Management.
2. Consult local and national OSHA regulations and applicable child labor laws.
3. Work with a nationally recognized organization when developing the Apprentice program (IE. Learning For Life, Explorer Program)

1-1.1

This training standard is based on the following Fire Department training criteria.

- a. The apprentice firefighter is receiving training in accordance with this standard.
- b. SCBA and thermal protective clothing are not required; able to safely fight the training fire under direct supervision in normal work clothing.
- c. Personal evasive action is not required; Not required to crawl or take other evasive action to avoid smoke and heat
- d. While under direct supervision of an Fire Instructor approved by the authority having jurisdiction, able to fight training fires from the exterior effectively with portable and semi portable extinguishers or handlines flowing up to 125 gpm

1-1.2

Prior to training to meet the requirements of this standard, the candidate shall:

- a. Meet the minimum educational requirements established by the authority having jurisdiction.
- b. Be at least 16 years of age.
- c. Meet the physical fitness requirements for the authority having jurisdiction. Physical fitness requirements shall be in compliance with applicable Equal Employment Opportunity regulations and other legal requirements.
- d. Meet the medical requirements of the authority having jurisdiction.

1-1.3

Prior to testing for certification at this level the candidate shall have accomplished tasks 1-2 through 1-15 of this standard.

1-2

Fire Department Organization

1-2.1

Describe the organization of the fire department

1-2.2

Explain the Apprentice Firefighter role as a member of the organization.

1-2.3

Explain the mission of the fire service and of the local fire department.

1-2.4

Explain the function of a standard operating procedures

1-2.5

Explain fire department rules and regulations that apply to the position of firefighter.

1-2.6

Explain the basic components of incident management and the firefighter's role within the local incident management system. Organize, coordinate and function within the incident management system.

1-2.7

Explain the role of other agencies that may respond to emergencies.

1-2.8 Describe the responsibilities of a firefighter as required by NFPA 1500, Standard on Fire Department Occupational Safety and Health Program.

1-3 Fire Fighter Safety

1-3.1 Describe the elements of a personnel accountability system and demonstrate the application of the system at an training simulated incident.

1-3.2 Identify dangerous building conditions created by fire.

1-3.3 Explain hazards related to electrical emergencies and demonstrate locating and properly turning off the simulated utilities to a structure.

1-3.4 Demonstrate the use of seat belts, noise barriers, and other safety equipment provided for protection while riding on apparatus. (IE. 4 wheelers, 6 wheelers, snowmachines and small trucks)

1-3.5 Demonstrate safety procedures when mounting, dismounting and operating around fire apparatus.

1-3.6 Identify a minimum of three common types of accidents and injuries, and their causes, that occur in the following locations: fire ground, responding and returning, training, non-fire emergencies, other duty locations.

1-3.7 Identify safety procedures for ensuring a safe station and/or facility environment.

1-3.8 Identify potential long-term consequences of exposure to products of combustion.

1-4 Fire Alarm and Communications

1-4.1 Explain the procedures for a citizen to report a fire or other emergency.

1-4.2 Explain the procedures for receiving an alarm or a report of an emergency from the public and demonstrate appropriate action.

1-4.3 Identify procedures required for receipt and processing of business and personal calls.

1-5 Fire Behavior

1-5.1 Define fire.

1-5.2 Define the fire triangle and tetrahedron.

1-5.3 Recognize the following conditions and explain their associated hazards and appropriate actions:

- a. Ignition
- b. Growth
- c. Roll over
- d. Flash over
- e. Fully developed fire
- f. Decay
- g. Backdraft

1-5.4 Identify three products of combustion commonly found in structural fires that create a life hazard.

1-5.5 Define the four methods of heat transfer.

1-5.6 Define the four physical stages of matter in which fuels are commonly found.

1-5.7 Define the relationship of the concentration of oxygen to combustibility and life safety.

1-5.8 Describe the process of thermal layering that occurs in structural fires and how to avoid disturbing the normal layering of heat.

1-6 Portable Extinguishers and Extinguishing Agents

1-6.1 Identify the classification of types of fire as they relate to the use of portable extinguishers.

1-6.2 Define the portable fire extinguisher rating system.

- 1-6.3 Identify the appropriate extinguishing agents and the application procedures for various classes of fire.
- 1-6.4 Extinguish Class A and B fires using the appropriate portable fire extinguishers under direct supervision of a Fire Instructor approved by the authority having jurisdiction.

1-7 Personal Protective Equipment

- 1-7.1 Identify the function of the following articles of protective clothing:
 - a. Helmet with eye shield
 - b. Hood
 - c. Boots
 - d. Gloves
 - e. Protective Coat
 - f. Protective Trousers
 - g. SCBA
 - h. Personal Alert Safety System
 - i. Eye Protection
 - j. Hearing Protection
- 1-7.2 Identify and demonstrate the care, use, inspection, maintenance, and limitations of the protective clothing and equipment assigned or available for use.
- 1-7.3 Demonstrate the donning and doffing of the protective equipment assigned or available for use.
- 1-7.4 Explain the hazardous environments requiring the use of respiratory protection
- 1-7.5 Describe the use, limitations and maintenance requirements of the SCBA

1-8 Forcible Entry

- 1-8.1 Identify materials and construction features of doors, windows, and walls and the dangers associated with forcing entry through each.
- 1-8.2 Identify the method to force entry through doors, windows, and walls.
- 1-8.3 Identify materials and construction features of door and window locking devices
- 1-8.4 Identify the method and describe the procedures of through-the-lock entry for doors and windows.
- 1-8.5 Identify methods and procedures for cleaning, maintaining, and inspecting hand tools used for forcible entry.
- 1-8.6 Identify and safely carry at least one of the following:
 - a. Cutting Tool
 - b. Prying Tool
 - c. Pulling Tool
 - d. Striking Tool

1-9 Ventilation

- 1-9.1 Define the principles of ventilation, and identify the advantages and effects of proper ventilation.
- 1-9.2 Identify the safety considerations and precautions to be taken while ventilating a structure.
- 1-9.3 Describe the advantages and disadvantages of the following types of ventilation:
 - a. Vertical
 - b. Horizontal
 - c. Mechanical
 - d. Hydraulic
- 1-9.4 Identify the signs, causes, and effects of backdraft explosions.
- 1-9.5 Identify methods of preventing a backdraft explosion.
- 1-9.6 Identify the types of tools used during ventilation.

- 1-9.7 Describe opening various types of windows from outside, with and without the use of tools.
- 1-9.8 Demonstrate the technique of breaking window or door glass and removing obstructions.

1-10 Fire Hose, Appliance and Streams

- 1-10.1 Describe the application of each size and type of hose used by the Fire Department and demonstrate how to clean, inspect and return hose to service.
- 1-10.2 Demonstrate the use of nozzles, adapters, and hose appliances and tools.
- 1-10.3 Demonstrate the following, given fire hose used for fire attack [minimum of 1 1/2 inch (38 mm)] and water supply [minimum 2 1/2 inch (65 mm)]:
 - a. Three types of hose loads and finishes
 - b. Three types of hose rolls
 - c. Coupling and uncoupling two lengths
 - d. Two hose carries
 - e. Extending hose lines
 - f. Replacing a simulated burst sections of hose.
- 1-10.4 Demonstrate a hand lay of supply line 2 1/2 inch (65 mm) or larger from a pump to a water source.
- 1-10.5 Define a fire stream.
- 1-10.6 Define a water hammer and at least one method for its prevention.
- 1-10.7 Demonstrate how to open and close a nozzle and how to adjust its stream pattern and flow setting, when applicable.
- 1-10.8 Identify the type, design, operation, required nozzle pressure, and flow of a given selection of nozzles and tips.
- 1-10.9 Define the following methods of water application:
 - a. Direct
 - b. Indirect
 - c. Combination
- 1-10.10 Identify precautions to be followed while advancing hose lines to a fire.
- 1-10.11 Identify 3 observable results that are obtained when the proper application of a fire stream is accomplished.

1-11 Foam Fire Streams

- 1-11.1 Assemble and operate a foam fire stream arrangement given the appropriate equipment.
- 1-11.2 Demonstrate the methods of applying a foam stream.

1-12 Fire Control

- 1-12.1 Extinguish or control the following training fires working as a member of a team, under direct supervision of Fire Instructor approved by the authority having jurisdiction and using the appropriate protective equipment, fire fighting tools, handline and extinguishing agents (Note: see 1-1.1 through 1-1.4)
 - a. Piles/stacks of Class A combustible materials (exterior)
 - b. Interior structure fire, from the exterior using windows and doors for access
 - c. Storage containers (exterior dumpster/trash bin)
- 1-12.2 Using a foam fire stream extinguish or control a combustible liquids live fire working as a member of a team under direct supervision and using the appropriate protective equipment, and firefighting tools.
- 1-12.3 Explain the procedures for extinguishing ground cover fires.

1-13 Loss Control

- 1-13.1 Identify the purpose of salvage and its value to the public and the fire department.
- 1-13.2 Demonstrate the procedures of inspection, cleaning, and maintaining salvage equipment.
- 1-13.3 Identify the purpose of overhaul.
- 1-13.4 Recognize at least four indicators of hidden fires.

- 1-13.5 Describe the exposing of hidden fires by opening ceilings, walls, and floors and by pulling apart burned materials.
- 1-13.6 Identify methods to separate, remove, and relocate charred material to a safe location while protecting the area of origin for determination of cause.
- 1-13.7 Define duties of the firefighters left at the scene for fire and security surveillance.

1-14 Water Supply

- 1-14.1 Assemble and connect the equipment necessary for drafting from a static water supply source.
- 1-14.2 Maintain portable pumps, power tools, dry chemical and foam fire extinguishers so that the equipment is cleaned, winterized and maintained according to manufacturer's and departmental guidelines, completed maintenance is recorded, and equipment is placed in a ready state or reported otherwise.

1-15 Fire Prevention and Public Fire Education

- 1-15.1 Identify 5 common causes of fires and their prevention.
- 1-15.2 Define the importance of inspection and public fire education programs to fire department public relations and the community.
- 1-15.3 Define the value of automatic sprinklers in providing safety to the occupants of a structure.
- 1-15.4 Present a prepared program as a member of a crew, to an identified audience, given a lesson plan, time allotment, and instruction materials for one of the following topics:
 - Primary Prevention
 - a. Home hazards
 - b. Cooking Safety
 - c. Matches and lighters are tools, not toys
 - d. Candle Safety
 - Secondary Prevention
 - a. Stop, drop and roll
 - b. Crawl low in smoke
 - c. Escape planning
 - d. Residential smoke alarm placement and maintenance
 - e. or other relevant Fire Prevention Program.
- 1-15.5 Complete an ANFIRS incident report that records all pertinent information, ensuring accuracy and completeness.