
AFSA's easy-to-use
Apprenticeship Training
Series keeps you
up-to-date on employee
activities and progress.

Training Made Easy

The AFSA Way

American Fire Sprinkler Association

Updated February 2018

Training Made Easy — The AFSA Way

Apprenticeship Training: Your Key to the Future

The competitiveness of your firm depends on your workforce: whether you have a skilled group who can do the job correctly and efficiently the first time or a workforce that doesn't know the proper installation techniques, costing you more money in the long run. To get the edge on the competition, you need to have well-trained employees who can work quickly and correctly.

It takes training to get that leading edge. By enrolling your employees in the American Fire Sprinkler Association's (AFSA) federally recognized apprenticeship training series for sprinkler fitters, you will reap the benefits of a qualified, professional crew and design staff. Well-trained employees will work more efficiently, increasing your company's productivity and, in turn, its profits.

Using AFSA's approved curriculum as the basis for your apprenticeship training, you can register your company's program with the U.S. Department of Labor Employment and Training Administration (DOLETA) or State Apprenticeship Council (SAC), enabling you to be more competitive on federal (and some state) projects. Keep in mind that this is a growing market for the fire sprinkler contractor that helps diversify your business opportunities.

Your company can benefit from using the AFSA training program even without registration with a government agency. You can tailor this unique AFSA program solely as in-house training to upgrade employee skills. However, if you choose not to register your company's program, you will not receive wage concessions on government contracts.

The AFSA apprentice training series develops skills through formalized training that is cost-effective, skill-specific, goal-oriented, and can be designed to meet individual company training needs.

This booklet is a guide to help your company establish and administer an effective training program. AFSA members with successful programs have contributed proven methods and experience to this booklet to help you get your training program started.

In the back of the guide, you will find sample forms – an Apprentice Data Sheet and Testing Log, Unit Test Remarks, and an On-The-Job Learning Log – for your use. These forms may be duplicated for use in each apprentice's file.

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Apprenticeship Training Program for Fire Sprinkler Fitters

(Published jointly by the American Fire Sprinkler Association and National Center for Construction Education & Research.)

Series G, Level I - 15 Modules

Upon completion of Level I the trainee will be awarded 15.25 CEUs (152.5 Credit Hours).

Module 00101-15 Basic Safety (12.5 Hours)

Upon completion of this module, the trainee will be able to describe the importance of safety, causes of workplace incidents, and process of hazard recognition and control; describe safe work requirements for elevated work, including fall protection guidelines; identify and explain how to avoid struck-by hazards; identify common energy-related hazards and explain how to avoid them; identify and describe the proper use of personal protective equipment (PPE); identify and describe other specific job-site safety hazards, such as exposure hazards, environmental extremes, hot work, basic firefighting procedures, and confined spaces.

Lesson 1 (1.0.0 through 3.2.3)

Lesson 2 (Sections 4.0.0 through Summary)

Module 00102-15 Introduction to Construction Math (10 Hours)

Upon successful completion of this module, the trainee will be able to identify whole numbers and demonstrate how to work with them mathematically; explain how to work with fractions; describe the decimal system and explain how to work with decimals; identify various tools used to measure length and show how they are used; identify and convert units of length, weight, volume, and temperature between the Imperial and metric systems of measurement; and identify basic angles and geometric shapes and explain how to calculate their area and volume.

Lesson 3 (Sections 1.0.0 through 4.2.4)

Lesson 4 (Sections 5.0.0 through Summary)

Module 00103-15 Introduction to Hand Tools (10 Hours)

Upon successful completion of this module, the trainee will be able to identify and explain how to use various types of hand tools (hammers, chisels, punches, screwdrivers, adjust and non-adjustable wrenches, socket and torque wrenches, pliers and wire cutters); identify and describe how to use various types of measurement and layout tools (rules, levels); identify and explain how to use various types of cutting and shaping tools (handsaws, files, utility knives); and identify and explain how to use other common hand tools (shovels, picks, chain falls, come-alongs, clamps).

Lesson 5 (All sections)

Module 00104-15 Introduction to Power Tools (10 Hours)

Upon successful completion of this module, the trainee will be able to identify and explain how to use various types of power drills and impact wrenches (power drills, bits, hammer drill, pneumatic drill); identify and explain how to use various types of power saws (circular, saber, reciprocating, portable band, miter, cutoff); identify and explain how to use various grinders and grinder attachments; and identify and explain how to use miscellaneous power tools such as pneumatic and powder-actuated fastening tools, pavement breakers, and hydraulic jacks.

Lesson 6 (All sections)

Module 00105-15 Introduction to Construction Drawings (10 Hours)

Upon successful completion of this module, the trainee will be able to identify and describe various types of construction drawings (civil, architectural, structural, mechanical, plumbing/piping, electrical, fire protection); describe the purpose of the five basic components of construction drawings; explain the significance of various drawing elements, such as lines of construction, abbreviations, symbols, and grid lines; identify and describe the use of dimensions, various drawing scales, and how to use engineer's and architect's scales.

Lesson 7 (All sections)

Module 00106-15 Basic Rigging (7.5 Hours)

Upon successful completion of this module, the trainee will be able to identify and describe various types of slings and how to inspect them; identify and describe how to inspect common rigging hardware; identify and describe various types of joists; and identify and describe basic rigging hitches and the related Emergency Stop hand signal.

Lesson 8 (All sections)

Module 00107-15 Basic Communication Skills (7.5 Hours)

Upon successful completion of this module, the trainee will be able to describe the communication, listening, and speaking processes and their relationship to job performance (including nonverbal communication, active listening, courteous and professional telephone calls, and tips for dealing with conflict); and describe good reading and writing skills and their relationship to job performance (including emails and texting).

Module 00108-15 Basic Employability Skills (7.5 Hours)

Upon successful completion of this module, the trainee will be able to describe the opportunities in the construction businesses and how to enter the construction workforce; explain the importance of critical thinking and how to solve problems (potential barriers, problems related to planning and scheduling); and explain the importance of good social skills and identify the way they are applied in the construction trade (resolving conflict with co-workers and supervisors, give and receive constructive criticism, social issues within the workplace, working in a team environment, being an effective leader).

Lesson 9 (All sections)

Module 00109-15 Introduction to Materials Handling (5 Hours)

Upon successful completion of this module, the trainee will be able to identify the basic concepts of material handling and common safety precautions (manual lifting, how to tie knots commonly used in material handling); identify various types of material handling equipment and describe how they are used (motorized and non-motorized handling equipment).

Lesson 10 (All sections)

Module 18101-13 - Orientation to the Trade (5 hours)

Upon completion of this module, the trainee will be able to identify career opportunities in the Sprinkler Fitting industry, define the

typical work environment of a sprinkler fitter, identify basic tools and materials of the trade, identify trade-specific safety hazards, identify plans specific to the sprinkler fitting industry, and define how to best organize job-site materials.

Lesson 11 (Sections 1.0.0 through 5.10.0)

Lesson 12 (Sections 6.0.0 through Summary)

Module 18102-13 - Introduction to Components & Systems (7.5 hours)

Upon completion of this module, the trainee will be able to define the term Listed and explain how the term relates to sprinkler systems, explain the purpose of a Listing agency, describe the characteristics of common sprinkler heads, state the important characteristics of aboveground pipe, including wall thickness and joining methods, define C-factor and list the advantages of a higher C-factor, describe the types of pipe hangers and sway bracing, and identify the characteristics of control valves, check valves, water flow alarms, and fire department connections.

Lesson 13 (Sections 1.0.0 through 3.5.0)

Lesson 14 (Sections 4.0.0 through Summary)

Module 18103-13 - Steel Pipe (22.5 hours)

Upon completion of this module, the trainee will be able to follow basic safety precautions for the preparation and installation of steel pipe, identify types of steel pipe, calculate take-outs, set up equipment, measure and cut steel pipe, assemble threaded, grooved, and plain-end pipe, and check for correctness of end preparation.

Lesson 15 (Sections 1.0.0 through 4.2.0)

Lesson 16 (Sections 5.0.0 through 6.4.0)

Lesson 17 (Sections 7.0.0 through 8.4.5)

Lesson 18 (Sections 8.4.6 through Summary)

Module 18104-13 - CPVC Pipe and Fittings (10 hours)

Upon completion of this module, the trainee will be able to follow basic safety precautions for the preparation and installation of CPVC pipe, identify approved CPVC pipe, calculate take-outs, set up equipment, join and cure CPVC pipe, and check for correctness of end preparation.

Lesson 19 (Sections 1.0.0 through 3.3.0)

Lesson 20 (Sections 4.0.0 through Summary)

Module 18105-13 - Copper Tube Systems (10 hours)

Upon completion of this module, the trainee will be able to follow basic safety precautions for the preparation and installation of plastic pipe, identify approved types of copper pipe, calculate take-outs, set up equipment, cut, chamfer, and clean copper pipe, and check for correctness of end preparation.

Lesson 21 (Sections 1.0.0 through 5.6.0)

Lesson 22 (Sections 6.0.0 through Summary)

Module 18106-13 - Underground Pipe (17.5 hours)

Upon completion of this module, the trainee will be able to identify types and properties of soil, explain excavation safety, explain sloping requirements for different types of soil, explain digging trenches, describe excavation support systems, describe types of bedding material, identify and describe types of underground pipe, describe thrust blocks and restraints, identify and describe hydrants, yard valves, hydrant houses, and associated appurtenances, explain testing, inspection, and chlorinating of underground pipe, and fill

out an Underground Test Certificate.

Lesson 23 (Sections 1.0.0 through 6.1.4)

Lesson 24 (Sections 6.2.0 through 8.15.0)

Lesson 25 (Sections 9.0.0 through Summary)

Series G, Level II - 7 Modules

Upon completion of Level II the trainee will be awarded 15.25 CEUs (152.5 Credit Hours).

Module 18201-13 - Hangers, Supports, Restraints, and Guides (15 hours)

Upon completion of this module, the trainee will be able to identify and describe strength requirements of pipe hangers, supports, restraints, and guides, identify and describe spacing requirements of pipe hangers, supports, restraints, and guides, identify and describe types of pipe hangers, supports, restraints and guides, install pipe hangers, supports, restraints, guides, and anchors, identify and explain types of earthquake bracing, install earthquake bracing, describe and explain sleeving and firestopping, and cut a hanger to a specified length.

Lesson 1 (Sections 1.0.0 through 2.5.4)

Lesson 2 (Sections 3.0.0 through 4.4.0)

Lesson 3 (Sections 5.0.0 through Summary)

Module 18202-13 - General Purpose Valves (15 hours)

Upon completion of this module, the trainee will be able to identify the basic types of valves, demonstrate the ability to service different types of valves, define the general purpose of a backflow preventer, install outside stem and yoke (OS&Y) valves, install a tamper switch, install butterfly grooved valves, and disassemble, service, and reassemble a check valve.

Lesson 4 (Sections 1.0.0 through 3.1.2)

Lesson 5 (Sections 3.1.3 through 4.4.0)

Lesson 6 (Sections 5.0.0 through Summary)

Module 18203-13 - General Trade Math (20 hours)

Upon completion of this module, the trainee will be able to use basic math principles to solve problems, convert fundamental measurement quantities from the English system to the metric system, and from metric to English, recognize the effects of temperature on sprinkler systems, calculate 45-degree offsets and tank volume, center sprinkler heads using the target, square offset, and geometric methods, and solve sprinkler system problems relating to changes in elevation, sprinkler, discharge, and hanger sizing.

Lesson 7 (Sections 1.0.0 through 2.3.3)

Lesson 8 (Sections 2.3.4 through 3.2.0)

Lesson 9 (Sections 3.3.0 through Summary)

Module 18204-13 - Shop Drawings (32.5 hours)

Upon completion of this module, the trainee will be able to identify common structural symbols on a shop drawing, identify cut lengths and sizes of pipe on an installation drawing, identify the materials to perform an installation from drawings, identify standard sprinkler system symbols, interpret a legend and calculate the number of sprinklers to be used in an installation, identify the orifice size of a sprinkler from drawings, identify the temperature rating of a sprinkler from a drawing, calculate the square footage and the number of sprinklers required for a given area, and lay out sprinkler hanger locations.

Lesson 10 (Sections 1.0.0 through 1.3.6)

Lesson 11 (Sections 1.4.0 through 3.2.1)

Lesson 12 (Sections 3.2.2 through Summary)

Module 18205-13 - Standard Spray Fire Sprinklers (20 hours)

Upon completion of this module, the trainee will be able to, using a shop drawing you are currently installing on a project, identify unobstructed and obstructed construction on the drawing, and explain why these construction types are obstructed or unobstructed, calculate maximum coverage area of standard sprinklers for various occupancies, calculate spacing using the small room rule, determine sprinkler temperatures by examining different sprinklers, calculate the maximum spacing of sidewall sprinklers using the protection area rule, and referencing a Sprinkler Identification Number (SIN), identify the manufacturer and sprinkler type.

Lesson 13 (Sections 1.0.0 through 2.1.0)

Lesson 14 (Sections 2.2.0 through 3.2.5)

Lesson 15 (Sections 4.0.0 through 4.5.0)

Lesson 16 (Sections 4.6.0 through Summary)

Module 18206-13 - Wet Fire Sprinkler Systems (25 hours)

Upon completion of this module, the trainee will be able to describe riser check, alarm check valves, and trim, trim an alarm check valve and replace the faceplate gasket, identify and describe flow switches, tamper switches, and pressure switches, install a flow switch and set the retard device, identify and explain fire department connections and hose stations, explain inspector's test connections and auxiliary drains, explain hydrostatic testing and test pumps, perform a hydrostatic test using a pump, describe antifreeze systems, calculate the specific gravity of an antifreeze solution, and complete a contractor's material & test certificate, and identify a faulty pressure gauge and replace it.

Lesson 17 (Sections 1.0.0 through 3.1.5)

Lesson 18 (Sections 3.2.0 through 4.7.0)

Lesson 19 (Sections 5.0.0 through 6.7.0)

Lesson 20 (Sections 7.0.0 through Summary)

Module 18207-13 - Dry Pipe Systems (25 hours)

Upon completion of this module, the trainee will be able to identify and explain dry-pipe systems and why and where dry pipe systems are used, identify dry-pipe valves and trim, install pressure gauges on an alarm valve, identify and explain air supplies, identify and explain accelerators and exhausters, perform an installation of an accelerator, explain why an exhauster is a quick-opening device and describe possible locations where an exhauster could be installed in a dry pipe system, explain pitching sprinkler piping and auxiliary drains in dry-pipe systems, calculate pitch for dry-pipe systems, identify and explain fire department connections with respect to dry pipe systems, install, set and adjust an air maintenance device, remove and install a faceplate gasket, and reset and troubleshoot a dry pipe system.

Lesson 21 (Sections 1.0.0 through 3.1.4)

Lesson 22 (Sections 3.2.0 through 4.4.0)

Lesson 23 (Sections 4.5.0 through 6.2.0)

Lesson 24 (Sections 7.0.0 through Summary)

Series G, Level III - 5 Modules

Upon completion of Level III the trainee will be awarded 14.75 CEUs (147.5 Credit Hours).

Module 18301-13 - Deluge/Preaction Systems (40 Hours)

Upon completion of this module, the trainee will be able to identify and explain differences between deluge and preaction systems, identify the critical components of a deluge system and preaction system, explain where preaction systems and deluge systems are generally installed, trip and reset a deluge valve, identify the three types of discharge nozzles used with a deluge system, identify and explain various methods of activating electrical release and electrical supervision, demonstrate the procedures to place a Firecycle®'s system in service, identify and explain non-, single-, and double-interlocked preaction systems, explain the main precautions that must be observed when placing non-, single-, and double-interlock systems into service and describe activation, and perform a hydrostatic test.

Lesson 1 (Sections 1.0.0 through 2.3.1)

Lesson 2 (Sections 2.3.2 through 2.4.4)

Lesson 3 (Sections 2.4.5 through 3.1.0)

Lesson 4 (Sections 3.2.0 through 3.3.4)

Lesson 5 (Sections 4.0.0 through 4.2.6)

Lesson 6 (Sections 4.3.0 through Summary)

Module 18302-13 - Standpipes (25 Hours)

Upon completion of this module, the trainee will be able to identify the different types and classifications of standpipes, explain the requirements for standpipes for buildings under construction, explain the basic requirements for sizing standpipes hydraulically and by schedule, describe a hose rack assembly and how it works, describe roof manifolds, identify and explain fire department connections, identify types of hose valves and adapters, demonstrate flow test procedures used to validate minimum pressure and flow capability, identify, test, and adjust a pressure-reducing valve (PRV), and demonstrate LINK-SEAL® installation procedures.

Lesson 7 (Sections 1.0.0 through 4.7.0)

Lesson 8 (Sections 5.0.0 through 7.0.0)

Lesson 9 (Sections 8.0.0 through 11.0.0)

Lesson 10 (Sections 12.0.0 through 13.5.3)

Lesson 11 (Sections 13.6.0 through Summary)

Module 18303-13 - Water Supplies (15 Hours)

Upon completion of this module, the trainee will be able to recognize federal, state, and jurisdictional requirements for supply and disposal of fire sprinkler system water, identify different water supplies for automatic sprinkler systems, explain the three qualities that are critical to the water supply for fire sprinkler systems, identify types of water storage and explain their usage, describe different water main configurations, perform flow test procedures, plot residual and static pressure on a graph, read a flow test results sheet and determine the number of outlets flowed, hydrant outlet size, and static and residual pressure, fill out a flow test summary sheet, identify and describe backflow preventers and methods of installation, and identify and describe meters used in fire sprinkler systems.

Lesson 12 (Sections 1.0.0 through 3.1.2)

Lesson 13 (Sections 3.2.0 through 4.1.3)

Lesson 14 (Sections 5.0.0 through 5.4.0)

Lesson 15 (Sections 6.0.0 through Summary)

Module 18304-13 - Fire Pumps (40 Hours)

Upon completion of this module, the trainee will be able to explain

the basic components and types that make up a fire pump system, identify the NFPA standard that covers the installation of fire pumps, explain the minimum residual pressure in pounds per square inch (psi) that can be used when pumping from a municipal water supply, convert pressure ratings from psi to feet of head and vice versa, explain how to set and align a pump, discuss the different types of and requirements for fire pump controllers, discuss monitoring requirements for fire for the pumps, describe acceptance testing of fire pumps, perform a mechanical check of a fire pump system, measure the flow of a system, and identify potential causes for a malfunctioning fire pump.

Lesson 16 (Sections 1.0.0 through 1.7.2)

Lesson 17 (Sections 2.0.0 through 2.9.0)

Lesson 18 (Sections 3.0.0 through 3.18.2)

Lesson 19 (Sections 4.0.0 through 6.4.0)

Lesson 20 (Sections 6.5.0 through 6.10.0)

Lesson 21 (Sections 7.0.0 through Summary)

Module 18305-13 - Application-Specific Sprinklers and Nozzles (27.5 Hours)

Upon completion of this module, the trainee will be able to identify, describe, and explain application-specific sprinklers, explain area of coverage, positioning, and obstruction requirements, select correct types of sprinklers based on occupancy and obstruction requirements, select proper escutcheon for recess sprinklers, identify and explain nozzles, describe different types of nozzles, size and install dry sprinklers, and size and install an attic sprinkler.

Lesson 22 (Sections 1.0.0 through 2.3.3)

Lesson 23 (Sections 2.4.0 through 2.7.1)

Lesson 24 (Sections 2.8.0 through 2.11.2)

Lesson 25 (Sections 3.0.0 through Summary)

Series G, Level IV - 5 Modules

Upon completion of Level IV the trainee will be awarded 14.5 CEUs (145 Credit Hours).

Module 18401-13 - System Layout (45 Hours)

Upon completion of this module, the trainee will be able to explain system design, pipe sizing, and hydraulic calculations, identify and describe the four different system configurations, explain the differences between pipe schedule design and hydraulic design, identify and describe extra hazard, ordinary hazard, light hazard, and residential occupancies, identify and explain flow characteristics, explain pressure loss considerations, hydraulically calculate branch lines, perform steps to hydraulically calculate a branch line, calculate main piping hydraulics, and explain how pipe schedule relates to hazard classifications.

Lesson 1 (Covering Sections 1.0.0 through 2.4.0)

Lesson 2 (Covering Sections 2.5.0 through 2.5.6)

Lesson 3 (Covering Sections 2.6.0 through 2.6.3)

Lesson 4 (Covering Sections 2.7.0 through 3.0.0)

Lesson 5 (Covering Sections 3.1.0 through 3.1.6)

Lesson 6 (Covering Sections 3.2.0 through Summary)

Module 18402-13 - Inspection, Testing, and Maintenance (17.5 Hours)

Upon completion of this module, the trainee will be able to describe the reasons for unsatisfactory sprinkler performance, explain initial system testing and inspections for aboveground, underground, and overhead pipe, describe the flushing process for underground piping/mains, describe the importance of periodic inspections of sprinkler systems, explain the report of inspection and how it must relate to the chapters included in NFPA 25, explain the difference between warranty repair and owner repair, explain

the general preparations for system repair, describe the specific repair considerations for deluge and preaction systems, describe the general preparation procedures for inspection, maintenance, and repair of special systems, explain the required procedures to test all types of valves, perform a main drain test, and complete inspection and testing of water-based and wet standpipe systems and complete the required documentation.

Lesson 7 (Covering Sections 1.0.0 through 2.3.0)

Lesson 8 (Covering Sections 3.0.0 through 4.4.0)

Lesson 9 (Covering Sections 4.5.0 through 5.2.0)

Lesson 10 (Covering Sections 5.3.0 through Summary)

Module 18403-13 - Special Extinguishing Systems (42.5 Hours)

Upon completion of this module, the trainee will be able to describe the three methods of heat transfer, explain the basic principles of exposure protection, identify what piping and fitting materials can be used and where they must be located in an exposure system, explain where water spray systems are typically used, explain the general concepts of using foam as opposed to water as an extinguishing agent, describe the different classes of foam concentrates and foam sprinkler system configurations, explain how to measure density using a refractometer, identify the five basic automatic fire detection methods that can be used for electric release, describe the dangers when working with a carbon dioxide system, and describe the different classes of fire extinguishers and what the rating designations mean.

Lesson 11 (Covering Sections 1.0.0 through 3.4.2)

Lesson 12 (Covering Sections 3.5.0 through 4.3.2)

Lesson 13 (Covering Sections 4.4.0 through 6.1.5)

Lesson 14 (Covering Sections 6.2.0 through 6.5.3)

Lesson 15 (Covering Sections 7.0.0 through 8.4.0)

Lesson 16 (Covering Sections 9.0.0 through 10.3.3)

Lesson 17 (Covering Sections 10.4.0 through Summary)

Module 18404-13 - Introductory Skills for the Foreman (20 Hours)

Upon completion of this module, the trainee will be able to explain the foreman's responsibilities to the project coordinating staff or project owner, explain job safety responsibilities, describe job cleanliness and material organization, explain responsibilities for project close-out, describe project layout and coordination, identify and describe the scope of project and the scope letter, describe the job specifications and project drawings, record changes on a shop drawing for as-builts, complete daily, weekly time, and progress reports, and identify and explain materials documentation.

Lesson 18 (Covering Sections 1.0.0 through 3.3.5)

Lesson 19 (Covering Sections 4.0.0 through 5.3.0)

Lesson 20 (Covering Sections 5.4.0 through 5.11.0)

Lesson 21 (Covering Sections 5.12.0 through Summary)

Module 18405-13 - Procedures and Documentation (20 Hours)

Upon completion of this module, the trainee will be able to recognize the consequences of improper system installation, identify the five Cs of project documentation, recognize unsafe acts and conditions on a worksite, identify the hazards associated with specific tasks, discuss the procedures for responding to an accident, describe the procedures for emergency response to water damage, and explain how to handle a water damage claim.

Lesson 22 (Covering Sections 1.0.0 through 3.2.0)

Lesson 23 (Covering Sections 4.0.0 through 4.1.0)

Lesson 24 (Covering Sections 5.0.0 through Summary)

AFSA Fire Sprinkler Fitter Training

The AFSA correspondence training series for fire sprinkler fitters offers education for entry-level personnel or for those wishing to upgrade their skills. Those who complete the training will be able to advance to the journeyman level. The course is divided into four levels. Subjects covered in the four-level series are listed on pages 2-5.

Make A Commitment

Begin with a commitment by management to a training program. This sends a signal to your employees that training is important.

Explain the benefits of training to your employees. Let them know that improving their skills will increase their pay and help them advance within the company.

If you will convey this message to the employee before he or she is enrolled, it can be used as an excellent incentive to promote the employee's training and his/her advancement within the company.

A properly trained staff will save you money in efficient installation time and quality craftsmanship, just as an improperly trained staff will cost you money in defective design and incorrect installation. An employee who has received sufficient training will work more quickly and accurately and will increase your company's productivity.

Selection

Apprentices should be at least 16 years of age and their selection should be based on ability, enthusiasm and integrity. Applicants should not be discouraged from completing high school.

Experience, background and length of time in the fitter trade should be considered when determining the employee's skill level. Attendance, work habits and attitude should also be evaluated.

Apprentices should be physically capable and mature enough to perform the work of the trade safely. Physical capability can be determined by an examination by a medical doctor chosen by your company. Apprentices also must have access to transportation to and from the jobsite.

To develop a good, reliable installation team, employers should screen potential trainees in the initial hiring process. Personal assessment, aptitude and drug testing are recommended so undesirable or unqualified workers are not hired. Such employees are an economic burden whether or not they are entered into a training program.

Remember — this is a long-term venture between the employer and the apprentice.

As noted earlier in this brochure, your company can benefit from using AFSA's federally recognized training program without registering it with a government agency. Your training program will still enable you to increase productivity, cut production costs and become more competitive. **However, if you do not register your program and get it approved by DOLETA/SAC in your state, you will not receive wage concessions on government contracts.**

Supervision

Each employer should designate a staff member (preferably a journeyman) to be responsible for the supervision of the apprentice's on-the-job training (OJT). This person should have field/installation experience so that they can answer technical questions and assist the trainee with the courses when necessary. This supervisor is also responsible for seeing that the apprentice is trained in all phases of the trade, including safety in the use of tools and equipment and jobsite conduct.

All apprenticeship training must be supervised; however, the time needed to properly do so is not excessive. Supervision is accomplished easily by a journeyman and a competent clerical employee.

The supervisor should coordinate his/her analysis of the trainee's progress with the record keeper and use these records to monitor the apprentice's progress throughout the program. By using this approach, supervisors can help the trainee meet his/her goals and correct any deficiencies as they are detected. Records are extremely important. In registered programs, the records may be audited.

If audited and found to have working apprentices that are not properly enrolled in a DOLETA/SAC approved apprenticeship program or the program fails to provide group or individual training away from the job site, the employer may be penalized and will have to pay back wages on all apprentices that were working at less than the Journeyman Davis-Bacon wage rate for that job. In addition, an employer could be subject to false claims if the employee is categorized as an apprentice but they are not in a DOL approved program.

Administration

Administrative procedures should be discussed with all program participants so that everyone will know his/her role in accomplishing company training goals. Defined task assignments will set clear guidelines to follow, which will minimize mistakes.

AFSA offers a placement exam to help employers determine the appropriate training level for each trainee. The employer can use exam results to assign the trainee to the appropriate fitter course. These exams are offered for Levels I and II only. Call AFSA for placement exam information at (214) 349-5965.

To order your courses use AFSA's online store at firesprinkler.org or send a course order form (Appendix I) and payment to AFSA national headquarters. Supply the employee's name and Social Security Number, identify which course level should be sent, and indicate if your student will utilize paper testing or online testing.

To ensure proper field training, a company should not have more apprentices than existing fitters. In some registered programs, the ratio of fitters to apprentices vary.

If advancement through the courses is to be completed in four years, a test should be completed every two weeks. The employee must be advised of this projected completion schedule so he/she can pace his/her studies accordingly. The training coordinator should monitor student progress to ensure that the schedule is met. The student study guide, included with each course order, will help you determine a testing schedule for your student.

To ensure that the apprentice is trained in all aspects of the trade, a journeyman should be in charge of directing and documenting the apprentice's progress through the On-the-Job Training (OJT) portion of the program (Appendix F). The importance of documented classroom or individualized training cannot be stressed enough. **Most programs registered with federal or state apprenticeship agencies will require group or individualized training away from the job site. Simply giving an apprentice a copy of the training materials with instructions to read and take the appropriate tests is not enough and may not meet the requirements of most registered programs.**

Each company must assign one staff member as the company's Training Coordinator. This is the one person with whom AFSA will correspond regarding your students' training in AFSA courses. The Training Coordinator should take total responsibility for the entire program's administration and record keeping. This includes ordering the courses and maintaining files for proper documentation. Detailed record keeping is simple; however, it must be done regularly. For three to eight apprentices, the clerical work required averages two hours per week. It is recommended that each apprentice have a separate training file to store test records. This file should not be mixed with the company personnel files. For security reasons, AFSA will not release student information to anyone other than the Training Coordinator. You will give AFSA your Training Coordinator's name and email address at the time you place your order.

Tests should be administered in a suitable location and must be monitored/proctored to ensure the integrity of the program. If testing online, select a computer with an Internet connection in a quiet area. Upon submitting each online test, the student will automatically receive his/her score. If paper testing, seat the apprentice in a quiet area. Upon completion, the student should return his/her tests to the training coordinator, to be mailed to AFSA national headquarters for grading. Students should never be allowed to make copies of the tests or leave the testing area with the test.

AFSA assumes that any correspondence course sold becomes the property of the company purchasing it. In some cases, employees may purchase the course from the employer by reimbursing the employer for the cost of the course (see the Incentives section). Such arrangements are between the employer and employee. Unless notified otherwise, AFSA assumes that the correspondence course is owned by the company or individual that originally purchased the course.

After purchase, the course is assigned to an individual student. There can be only one student assigned to each course sold. After the student successfully completes all lessons in the course, a certificate citing Continuing Education Units (CEU's) earned is issued, and that course can no longer be used for additional students. It is intended that the textbook be used as a reference for students after completion of all lessons.

If a student drops out of the training and does not complete the course assigned to him/her, the company may reassign that course to another person by notifying AFSA in writing. Your notice should include the former student's name, Social Security Number, and AFSA-assigned Student ID number. It should also include the new student's name and Social Security Number. Replacement tests may be obtained from AFSA for the newly assigned student. AFSA will provide Replacement Tests for Lessons 1, 2, and 3 at no charge. Tests for Lesson 4 and up are \$15.00 each. Under no circumstances may a company purchase additional tests for a course assigned to a student who has completed all lessons and received a certificate for that course.

An apprentice taking over courses from a former employee should not, under any circumstances, take tests without receiving confirmation from AFSA of the change first.

Registration

If the purpose of your training program is to allow a wage concession for apprentices to perform federally funded (Davis-Bacon) or state-funded (Little Davis-Bacon) work, your company's individual training program must be approved by the Department of Labor or State Apprenticeship Council in the state in which you are headquartered.

IMPORTANT: Purchasing and/or enrolling your employees in the AFSA apprenticeship course does not automatically register your company's apprenticeship program. Once your company's program has been registered with the government, each apprentice must be individually registered in that program.

To do this you must contact the Department of Labor, Employment and Training Administration (DOLETA) in your state, and/or a State Apprenticeship Councils (SAC) if you are in a SAC state. If you do not fully understand this requirement, please call AFSA at (214) 349-5965.

Most programs registered with federal or state apprenticeship agencies will require group or individualized training at your headquarters or a training facility away from the job site. Simply giving an apprentice a copy of the training materials with instructions to read and take the appropriate tests is not enough and may not meet the requirements of most registered programs.

AFSA members are encouraged to register their training programs with either the ETA or SAC (depending on your state). A good resource of registration information can be found at the DOLETA website: www.doleta.gov/oa/regulations.cfm

The Employment and Training Administration has representatives in each state whose job is to assist you in setting up your training program. The ETA regional offices can direct you to the Apprenticeship and Training Representative (ATR) closest to you (see ETA listings in the appendix). The ATR also can assist you in other training matters.

Whether you are headquartered in an ETA state or a SAC state, the ATR will help you get your training program approved. SAC states are listed in the appendix. These ATRs are more than willing to visit your place of business to assist you in filling out the required paperwork and answer any questions you may have about the program.

Apprentices who complete a registered program are eligible to receive a certificate from the Department of Labor signifying that they have achieved the journeyman level.

If you register your program, you will gain these advantages:

1. You will receive a waiver from age discrimination regulations. You will be able to specify the age level desired as a part of the requirement for a certain job.
2. You will be able to require apprentices to attend related training associated with the program, including work on AFSA correspondence courses, off normal duty time without pay.
3. You will be eligible for significant wage concessions on federally or state funded jobs.
4. You will be able to pay apprentices a percentage of the journeyman's wages as specified in your registered apprenticeship standards.
5. You will qualify to pay your apprentices who are enrolled in an approved program less than the prevailing wage rate.
6. You will be able to take credit for a percentage of the trainee's wages and any bona fide fringe benefits found prevailing in the industry to be used for an approved training program.
7. You will be allowed to pay less social security. The amount the contractor is credited goes to a third party responsible for training.

If you choose not to register your program, you will still benefit from the advantages of having a solid, up-to-date training program, as well as having trained and capable employees. In the long run, the results are revealed in increased productivity and profits.

You will be able to specify the probationary period up to one year. Therefore, potential apprentices should be evaluated for suitability as a fire sprinkler fitter before they are entered into the training program.

After the probationary period up to one year in a registered ETA program, the employee is entered into an apprenticeship agreement with the U.S. Department of Labor. A form must be filled out completely and signed by the employee and the employer. It is then sent to the U.S. Department of Labor for registration into the apprenticeship program.

It is recommended that an ETA-approved and registered training trust agreement account be established for accruing funds for training all technical and field employees. This account provides for education fund contributions and expenditures.

Incentives

Many companies use the progress of the employee in course work, attendance, attitude, and job performance as the criteria for reviews and raises. Some companies start an employee at the basic level at a salary that is one-half the journeyman rate. The employee is given a review every six months. If performance is satisfactory in all the above-mentioned categories, the employee is given percentage raises that will gradually increase his/her salary to the journeyman rate by the end of the training. Each company is responsible for establishing the journeyman fitter wage scale. This gives the apprentice a predetermined goal.

Some companies charge the employee \$7.00 a week until he/she has paid for the course. Some things are easier sold than given away. Employees appreciate a training program that they have invested in. The company could return the money upon course completion as an employee savings incentive.

Many employers will charge the \$15.00 retake fee (assessed by AFSA when a student fails a test) directly to the student. This may improve the student's study habits and, in turn, encourage the student to be more prepared when taking tests.

Certificate

All apprentices will receive certificates of completion for each level of the AFSA correspondence course series they successfully complete. After all 4 levels are completed the apprentice will receive a certificate denoting completion of the entire course series. Apprentices who complete a state-approved program are also eligible to receive a certificate from the U.S. Department of Labor signifying that they have achieved the journeyman level.

Apprentices also receive an identification card for each level they completed. This ID card cites the student's name, level of training completed, and CEUs earned for that level.

Training Trust

Your company should consider establishing a training trust agreement as a funding vehicle for the future education and training of your field employees. The training can be classroom, correspondence courses, on-the-job training, seminars, online, etc.

A training trust is a legally binding agreement that allows a company to set aside a portion of an employee's wages to be used for training and education. In some cases, there are certain income tax advantages for companies using these agreements.

The agreements are filed with and approved by the Department of Labor in the state where your company is located.

AFSA has received positive feedback from companies that have established trust agreements. They like the idea of having specific funds available for training when the need arises.

AFSA Apprenticeship Training Standards

AFSA has published National Apprenticeship and Training Standards for contractors to use as a guide when establishing a ETA/SAC-approved training program. These standards provide a description of the procedure to follow in setting up a company program. This includes policy, sample forms, apprentice wage structure and work processes. Call AFSA for a copy of this comprehensive booklet to use as a guide in setting up your program at (214) 349-5965 or download from the AFSA document center at: www.firesprinkler.org/.

When these standards were approved in January 1982, it was thought that contractors would form local Chapter apprenticeship committees (CACs) to collectively pool and train apprentices. However, most companies get approval to be an independent training entity using AFSA's correspondence courses to fill the requirement for supplemental training. Always ask for a training ratio of one to one, as that is how the crews normally work.

AFSA's National standards can be a guide for your program, however, you must register your own program standards.

Firesprinkler.org/eTest

Once you've started the training program, bookmark this web page. At this site, Training Coordinators can look up test results, purchase retake codes, update contact information, view/print course study guides, and more.

Appendices

- Appendix AU.S. Department of Labor Regional Offices*
- Appendix BU.S. Department of Labor State Offices*
- Appendix CState Apprenticeship Agencies/Councils*
- Appendix DApprenticeship Data Sheet and Testing Log
- Appendix EUnit Test Remarks
- Appendix F.....O.J.T. Log
- Appendix GWage Structure Form
- Appendix HAFSA Training Opportunities
- Appendix IOrder Form

*The addresses and telephone numbers listed in these appendices were provided by the U.S. Department of Labor and were current as of February 2018. If you find a listing that is no longer correct, contact the U.S. Department of Labor at (202) 693-2796 or visit their website at www.doleta.gov.

U.S. Department of Labor

Employment and Training Administration (ETA)

Regional Offices

(as of 02/01/18) Source: <http://www.doleta.gov/oa/regdirlist.cfm>

REGION I

Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, Vermont, Puerto Rico, Virgin Islands

Regional Director: Ms. Jill Houser

USDOL/ETA/OA

JFK Federal Building

Room E-370

Boston, MA 02203

Telephone: 617/788-0177

FAX: 617/788-0304

Email: Houser.Jill@dol.gov

REGION II

Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia

Regional Director: Mr. James Foti

USDOL/ETA/OA

170 S. Independence Mall, West

Suite 825-East

Philadelphia, PA 19106-3315

Telephone: 215/861-4830

FAX: 215/861-4833

Email: Foti.James@dol.gov

REGION III

Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee

Regional Director: Mr. Garfield G. Garner, Jr.

USDOL/ETA/OA

61 Forsyth Street SW, Rm. 6T100

Atlanta, GA 30303

Telephone: 404/302-5478

FAX: 404/302-5479

Email: Garner.Garfield@dol.gov

REGION IV

Arkansas, Colorado, Louisiana, Montana, New Mexico, North Dakota, Oklahoma, South Dakota, Texas, Utah, Wyoming

Regional Director: Mr. Dudley Light

USDOL/ETA/OA

525 Griffin Street, Rm. 317-L

Dallas, TX 75202

Telephone: 972/850-4682

FAX: 972/850-4688

Email: Light.Dudley@dol.gov

REGION V

Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, Ohio, Wisconsin

Regional Director: Mr. Dean Guido

USDOL/ETA/OA

230 South Dearborn St., Rm. 656

Chicago, IL 60604

Telephone: 312/596-5500

FAX: 312/596-5501

Email: Guido.Dean@dol.gov

REGION VI

Alaska, Arizona, California, Hawaii, Idaho, Nevada, Oregon, Washington

Regional Administrator: Ms. Patricia Garcia

USDOL/ETA/OA

90 7th Street, Ste. 17-100

San Francisco, CA 94103

Telephone: 415/625-2232

FAX: 415/625-2235

Email: Garcia.Patricia@dol.gov

U.S. Department of Labor

Employment and Training Administration (ETA)

State Offices of Apprenticeship

(as of 02/01/18) Source: <http://www.doleta.gov/oa/stateoffices.cfm>

Alabama

Medical Forum Bldg.
950 22nd Street North, Rm. 648
Birmingham, Alabama 35203
205/731-1308

Alaska

605 W. 4th Avenue, Room G-30
Anchorage, Alaska 99501
907/271-5035

Arizona

See Nevada contact.

Arkansas

Federal Building - Room 3507
700 West Capitol Street
Little Rock, Arkansas 72201-3204
501/324-5415

California

801 I Street, Ste. 274
Sacramento, CA 95814
916/414-2389

Colorado

U.S. Custom House
721 19th Street - Room 465
Denver, Colorado 80202-2517
303/844-6362

District of Columbia and Delaware

See Pennsylvania contact.

Florida

61 Forsyth St. SW, Rm. 6T100
Atlanta, GA 30303
404/302-5432

Georgia

61 Forsyth St. SW, Room 6T80
Atlanta, Georgia 30303
404/302-5897

Hawaii

90 7th Street, Ste. 17-100
San Francisco, California 94103
415/625-2230

Idaho

1387 S. Vinnell Way #110
Boise, Idaho 83706
208/321-2972

Illinois

230 S. Dearborn St., Rm. 656
Chicago, Illinois 60604
312/596-5505

Indiana

Federal Building and U.S. Courthouse
46 E. Ohio Street - Room 511
Indianapolis, Indiana 46204
317/226-7001

Iowa

210 Walnut Street - Room 715
Des Moines, Iowa 50309
515/284-4690

Kansas

444 SE Quincy St. - Room 247
Topeka, Kansas 66683-3571
785/295-2624

Kentucky

See Florida contact.

Maryland

See Pennsylvania contact.

Massachusetts

See New Hampshire contact.

Michigan

315 W. Allegan, Rm. 209
Lansing, Michigan 48933
517/377-1747

Minnesota

See Illinois contact.

Mississippi

Federal Building
100 West Capitol St., Rm. 771
Jackson, Mississippi 39269
601/965-4346

Missouri

Robert A. Young Federal Bldg.
1222 Spruce St., Rm. 9.102E
St. Louis, Missouri 63103
314/539-2519

Nebraska

222 S. 15th St., Ste. 504C
Central Park Plaza, South Tower
Omaha, Nebraska 68102-1608
402/221-3281

Nevada

600 S. Las Vegas Blvd. Ste. 520
Las Vegas, Nevada 89101
702/388-6771

New Hampshire

55 Pleasant Rd.
Concord, New Hampshire 03301
603/225-1446

New Jersey

Metro Star Plaza-Suite 201A
190 Middlesex-Essex Turnpike
Iselin, New Jersey 08830
732/750-0766

North Dakota

304 Broadway, Rm. 332
Bismarck, North Dakota 58501-5900
701/250-4700

Ohio

46 E. Ohio St., Rm. 528
Indianapolis, Indiana 46204
317/226-7001

Oklahoma

215 Dean A. McGee Ave., Ste. 346
Oklahoma City, Oklahoma 73102
405/231-4338

Oregon

See Washington contact.

Pennsylvania
170 S. Independence Mall, West
Suite 825 East
Philadelphia, Pennsylvania 19106
215/861-4841

South Carolina
1835 Assembly St., Rm. 838
Columbia, South Carolina 29201
803/765-5547

South Dakota
225 S. Pierre Street, Rm. 223
Pierre, South Dakota 57501-2479
605/224-7983

Tennessee
Airport Executive Plaza
1321 Murfreesboro Rd. Ste. 541
Nashville, Tennessee 37217
615/781-5318

Texas
300 E. 8th St., Ste. 914
Austin, Texas 78701
512/916-5435

Utah
125 State St., Rm. 2412
Salt Lake City, Utah 84138
801/524-5451

Virginia
See Pennsylvania contact.

Washington
300 Fifth Ave., Ste. 1260
Seattle, Washington 98104
206/757-6772

West Virginia
405 Capitol St., Ste. 409
Charleston, West Virginia 25301
304/347-5794

Wisconsin
See Illinois contact.

Wyoming
308 W. 21st St., Rm. 205
Cheyenne, Wyoming 82001-3637
307/772-2448

State Apprenticeship Agencies/Councils (SACs)

(as of 02/01/18) Source: <http://www.doleta.gov/oa/stateagencies.cfm>

Arizona
Dept. of Economic Security
Apprenticeship Office
1789 W. Jefferson St.
PO Box 6123
Phoenix, AZ 85007
602/542-5641
Fax: 602/542-2491

Connecticut
Connecticut Labor Department
Office of Apprenticeship & Training
200 Folly Brook Boulevard
Wethersfield, CT 06109-1114
860/263-6085
Fax: 860/263-6088

Delaware
Apprenticeship and Training Section
4425 N. Market St.
Wilmington, DE 19802
302/451-3423

District of Columbia
Office of Apprenticeship Information &
Training
Dept. of Employment Services
4058 Minnesota Ave. NE, Rm. 3900
Washington, DC 20019
202/698-3530
Fax: 202/698-5721

Florida
325 W. Gaines St., Room 754
Tallahassee, FL 32399
850/245-9039
Fax: 850/245-9010

Guam
Planning Division, GDOL/AHRD
414 W. Soledad Ave., Ste. 400
Hagatna, Guam 96910
671/475-7078
Fax: 671/475-7045

Hawaii
Workforce Development Division
Department of Labor and Industrial
Relations
830 Punchbowl St., Rm. 329
Honolulu, HI 96813
808/586-8877
Fax: 808/586-8822

Kansas
Kansas Dept. of Commerce
Apprenticeship Program
1000 SW Jackson St., Ste. 100
Topeka, KS 66612-1354
913/577-5940
Fax: 785/296-1404

Kentucky
Kentucky Department of Labor
Division of Employment Standards,
Apprenticeship & Mediation
1047 U.S. Hwy. 127 South, Ste. 4
Frankfort, KY 40601
502/564-3070
Fax: 502/696-5024

Louisiana
Louisiana Workforce Commission
P.O. Box 94094
1001 N. 23rd
Baton Rouge, LA 70802-3338
225/342-7819
Fax: 225/342-0209

Maine
Department of Labor
55 State House Station
Augusta, ME 04333-0055
207/623-7969

Maryland
Office of Workforce Development
1100 North Eutaw Street
Baltimore, MD 21201
410/767-3969

Massachusetts
Division of Apprentice Training
Department of Workforce Development
19 Staniford St. PO Box 146759
Boston, MA 02114
617/626-5407
Fax: 617/626-5427

Minnesota
Department of Labor and Industry
Apprenticeship Unit
443 Lafayette Road
St. Paul, MN 55155
651/284-5285
Fax: 651/284-5720

Montana
Apprenticeship and Training Program
Montana Department of Labor &
Industries
P.O. Box 1728
Helena, MT 59624-1728
406/444-3556
Fax: 406/444-3037

Nevada
Office of the Nevada Labor Commissioner
675 Fairview Dr., Ste. 226
Carson City, NV 89701
775/687-4850

New Mexico
New Mexico Department of Workforce
Solutions
Labor Relations Division
401 Broadway NE
Albuquerque, NM 87102
505/841-8077
Fax: 505/841-8491

New York
New York State Department of Labor
Division of Employment and Workforce
Solutions
State Campus Building #12, Rm. 450
Albany, NY 12240
518/457-6820
Fax: 518/457-9526

North Carolina
 NCWorks Apprenticeship
 4316 Mail Service Center
 Raleigh, NC 27699
 919/814-0303
 Fax: 919/622-4557

Ohio
 ApprenticeOhio
 Office of Workforce Development,
 ODJFS
 P.O. Box 1618
 Columbus, OH 43216-1618
 614/644-0863

Oregon
 Apprenticeship and Training Division
 Oregon State Bureau of Labor &
 Industries
 800 N.E. Oregon St. Ste. 1045
 Portland, OR 97232
 971/673-0760
 Fax: 971/673-0768

Pennsylvania
 Bureau of Labor Law Compliance
 PA Department of Labor and Industry
 1301 Labor and Industry Building
 651 Boas St.
 Harrisburg, PA 17121
 717/787-6997
 Fax: 717/787-0517

Puerto Rico
 Dept. of Labor & Human Resources
 505 Munoz Riveria Ave.
 San Juan, PR 00918
 787/754-2119

Rhode Island
 RI Department of Labor and Training
 Division of Professional Regulation
 1511 Pontiac Avenue, PO Box 20247
 Cranston, RI 02920
 401/462-8536
 Fax: 401/462-8528

Vermont
 VT Dept. of Labor, Apprenticeship
 Division
 5 Green Mountain Drive
 P.O. Box 488
 Montpelier, VT 05601-0488
 802/828-5250
 Fax: 802/828-4374

Virginia
 Division of Registered Apprenticeship
 Virginia Dept. of Labor and Industry
 600 E. Main St., Ste. 207
 Richmond, VA 23219
 804/225-4362
 Fax: 804/786-8418

Virgin Islands
 Virgin Islands Department of Labor
 4401 Sion Farm
 Christiansted, Saint Croix 00820-4245
 304/773-1994 ext. 2130 or
 340/776-3700 ext. 2099

Washington
 Department of Labor and Industries
 P.O. Box 44530
 Olympia, WA 98504-4530
 360/902-5320
 Fax: 360/902-4248

Wisconsin
 Department of Workforce Development
 Bureau of Apprenticeship Standards
 P.O. Box 7972
 Madison, WI 53707
 608/266-3133
 Fax: 608/266-0766

Apprenticeship Data Sheet and Testing Log

Summary

The Apprenticeship Data Sheet is used by the employer to keep records of the apprentice's testing activity. This same Data Sheet can be used for each consecutive level in the Fire Sprinkler Apprentice Training Series by making copies.

Each time an apprentice takes a test, the Training Coordinator should record the dates under "Date Taken." When the exam is mailed, it is recorded under "Date Mailed." If doing paper testing, record the date the paper test is mailed to AFSA national headquarters for grading. The test will be graded and the scores (including the number of any questions missed) sent back, usually by email, to the Training Coordinator in the form of a Student Summary Report. The Training Coordinator will then record the date the Student Summary Report was received, whether the test was passed or failed, and the score. **(Note: The Training Coordinator should keep a copy of each paper Test Answer Sheet that is sent in for grading in case a test is lost in the mail. This copy can be securely destroyed after test results are received.)**

A test score of 70+ is passing. If a student fails a paper test, AFSA will send a paper retake test to the Training Coordinator. When submitting paper retake tests to AFSA for grading, a \$15.00 retake test fee should be included. If a student fails an online test, after a waiting period, the system will allow the student to retake the test once a \$15 retake code is applied.

ACCURACY IS A MUST ON THIS DATA SHEET. Many times an employer will refer to this form for dates of a test that may not have been returned, to find out if the test has to be retaken, or to review progress and overall scores of the apprentice's tests.

Apprenticeship Data Sheet and Testing Log

NAME: _____ HIRE DATE: _____
 ADDRESS: _____ PROGRAM: _____
 CITY/STATE/ZIP: _____ PHONE: _____ DATE ENROLLED: _____
 BIRTHDATE: _____ AGE: _____ COMPLETION DATE: _____
 SOC. SECURITY #: _____ PHYSICAL: _____ CERTIFICATE REC'D.: _____

UNIT TESTS

Units	Date Taken	Date Mailed	Results Rec'd.	Pass/Fail	Score	RETEST			2 nd RETEST		
						Date	Pass/fail	Score	Date	Pass/fail	Score
Unit1											
Unit2											
Unit3											
Unit4											
Unit5											
Unit6											
Unit7											
Unit8											
Unit9											
Unit10											
Unit11											
Unit12											
Unit13											
Unit14											
Unit15											
Unit16											
Unit17											
Unit18											
Unit19											
Unit20											
Unit21											
Unit22											
Unit23											
Unit24											
Unit25											

Unit Tests Remarks

Summary

Use the Unit Test Remarks sheet to record any information about the testing progress or tests that would not fit on the Apprentice Test Sheet. Tracking the testing process will better enable you to see the progress of the apprentice at-a-glance. This sheet can be copied for each apprentice.

Unit Test Remarks

Unit 1 _____

Unit 2 _____

Unit 3 _____

Unit 4 _____

Unit 5 _____

Unit 6 _____

Unit 7 _____

Unit 8 _____

Unit 9 _____

Unit 10 _____

Unit 11 _____

Unit 12 _____

Unit 13 _____

Unit 14 _____

Unit 15 _____

Unit 16 _____

Unit 17 _____

Unit 18 _____

Unit 19 _____

Unit 20 _____

Unit 21 _____

Unit 22 _____

Unit 23 _____

Unit 24 _____

Unit 25 _____

On-The-Job Training Log

Summary

The apprentice O.J.T. log form is used to keep a record of the apprentice's field training. This form can be copied for each apprentice in your training program.

The O.J.T. log is filled out completely by the Superintendent each week. This form is important in order to keep accurate records of the employee's time. The form will show if an employee is getting enough training in certain fields and not enough in other fields. The employee must achieve a certain amount of O.J.T. time in each category for his/her apprenticeship training.

A sample O.J.T. log is on the following page. A more detailed On-the-Job Training Log is available for download at www.firesprinkler.org/OJT

O.J.T. Log

Name _____
 Student ID # _____
 Date Entered Program _____

Approximate Hours	50	750	750	750	650	1250	650	1600	500	500	350	350	600	Total Hours
First Aid & Safety														
Plan Reading Interpretation														
Care of Tools, Materials & Equipment														
Preparation of Tools, Material & Equipment														
Pipe Cutting, Threading, Reaming & Welding														
Installation of Underground Piping & Accessories														
Wet Pipe System														
Dry Pipe System														
Standpipe System														
Special Hazard Installation														
Installation of Fire Pumps & Accessories														
Maintenance and Repair														
Total Hours														

Total Hours

This is a sample OJT log. A more detailed On-the-Job Training log is available for download at

<http://www.firesprinkler.org/OJT>

SPRINKLER FITTER

Wage Structure and Basic Company Package

Year: _____

WAGE

Foreman: _____

Journeyman: _____

Class #10: _____

Class #9: _____

Class #8: _____

Class #7: _____

Class #6: _____

Class #5: _____

Class #4: _____

Class #3: _____

Class #2: _____

Class #1: _____

More Training Opportunities Provided by AFSA...

Residential Installer Training Residential Fire Sprinkler System Installation Guide

This course teaches installers the techniques for residential fire sprinkler system installation according to the 2007 edition of NFPA 13D, *Standard for the Installation of Sprinkler Systems in One-and Two-Family Dwellings and Manufactured Homes*. Purchase of the book, in either English or Spanish-language version, includes accompanying A/V instruction on DVD.

AFSA Members: \$250.00*

NonMembers: \$450.00*

* with online testing

Members Save \$200

ITM Training firesprinkler.org/ITM

AFSA's ITM Inspector Development Program utilizes on-demand and live training courses combined with a structured OJT and mentoring program with the goal of candidates passing NICET Level II Inspection & Testing exams in less than two years. Visit firesprinkler.org/itm to view a class schedule and learn more.

- On-Demand, Live Webinar, & Classroom Training
- Lab & Field Exercises
- Structured OJT Guide

Members Save 50%

Foremanship Training for Fire Sprinkler Fitters The Leadership Ladder

This course teaches the newly promoted fire sprinkler foreman to manage projects from beginning to end. This 24-lesson course guides the new foreman through supervision of a fire sprinkler installation project & the other employees working that job. It also includes more than 40 pages of sample forms necessary to help manage a project, such as Change Order, Request for Information, and Employee Injury Report.

AFSA Members: \$350.00*

NonMembers: \$550.00*

* with online testing

Members Save \$200

Estimating, Bidding, Selling & Contracting for Fire Sprinkler Systems

Based on proven techniques and best practices of successful fire sprinkler contractors across the country, *Estimating, Bidding, Selling, and Contracting for Fire Sprinkler Systems* is a detailed guide to selling fire sprinkler systems - from receiving the bid request to the post-bid review. This guide has over 300 pages of practical advice and sample forms for estimating, checklists and other materials that any fire protection company, large or small, can use to produce competitive bids.

AFSA Members: \$150.00

NonMembers: \$250.00

Members Save \$100

Beginning Fire Sprinkler System Planning School

AFSA's Beginning Fire Sprinkler System Planning School presents a comprehensive, practical approach to preparing fire sprinkler system drawings. Students receive two full weeks of instruction, 60 percent of which is study and review of NFPA 13 (2016 edition). The other 40 percent is preparation of fire sprinkler system layout, shop drawings and hydraulic calculations. The school is designed to train a beginner to be productive immediately upon returning to work. It will prepare the student to:

- Accelerate the comprehension of plans & various types of building construction for proper sprinkler spacing application.
- Determine the proper & economical planning of fire sprinkler system layout & installation methods.
- Know the importance of sprinkler specifications, types of pipe, hangers, fittings, flow tests, etc.
- Learn to develop shop drawings from start to finish.
- Learn to coordinate with other trades – plumbing, mechanical, structural, and electrical.
- Perform manual Hydraulic Calculation exercises on 2 different types of applications: a tree system and looped main system. This prepares the student for an easier decision-making process when using a computer to perform hydraulics.
- Prepare shop drawings in class for projects with different applications.

For details or request a registration form, contact the Education Dept. at (214) 349-5965 x132 or visit firesprinkler.org.



American Fire Sprinkler Association

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