

# American Fire Sprinkler Association

To successfully complete this course the trainee will take a test after studying each module. Details about testing in a correspondence course are available in the AFSA Product Catalogue

## Leadership Ladder Foremanship Training Program for Fire Sprinkler Foreman

### Series F

Upon completion of this Book, the trainee will be awarded 14.4 CEUs (144.0 Credit Hours)  
Required Hours of Instruction

#### Chapter I

##### Starting the Climb

###### Lesson 1 I Am Their Leader, Which Way Did They Go?

Upon completion of this lesson the trainee will be able to:

Identify their role as a new foreman; Identify the common characteristics and traits of leaders; Determine how to handle mistakes, both yours and others; Identify the key elements of success; Explain the importance of appearance and image; Define the following key words: Accountability, Ambition, Appearance, Desire, Discipline, Hard Work, Image, Integrity, Loyalty, Recognition, Respect, and Responsibility.

###### Lesson 2 Understanding People

Upon completion of this lesson the trainee will be able to:

Describe the common needs of people; Recognize the four common behavioral types; Deal with each individual with an understanding of his or her behavioral type; Explain what motivation is and how you can influence people to become motivated; Deal with anger: both yours and others; Practice positive thinking; Define the following concepts: Anger Modification, Attitude, Basic needs, Four behavioral types, Motivation, Negative people, Positive self talks, Psychological needs, Self-Control, and Self Esteem.

###### Lesson 3 Communication Skills

Upon completion of this lesson the trainee will be able to:

Demonstrate the communication process; Examine organizational skills as a part of the communication process; Identify the types of communication and communication styles; Recognize nonverbal communication; Examine types of communication to avoid. Define the following terms: Body Language, Direct Questions, Emotional Control, Feedback, Focused Listening, Indirect Questions.

###### Lesson 4 Coaching and Training to Win

Upon completion of this lesson the trainee will be able to:

Explain how a foreman is like a coach; Explain the difference in education, learning and training; Explain how to teach new skills; Explain classroom tips and instructional principles; Define the following terms: Coaching Windows, Education. General Objectives, Ground Rules, Learning, Repetition, Specific Objections, Training.

###### Lesson 5 Working with Owners, General Contractors and Inspectors

Upon completion of this lesson the trainee will be able to:

Identify the goals and the motivation of the owner for whom you may be installing a sprinkler system; Gain the skills to deal with the owner and represent your company properly; Identify the goals and motivation of the general contractor for whom you are working on a project; Gain the skills to deal with the project manager and/or the superintendent on a project; Identify the goals and motivation of an inspector of your work and the interface among the different inspectors on a project; Define the following key terms: Architect, Building Official, Clerk of the Works, Construction Manager, Design/builder, Engineer, Fire Inspector, Fire Marshall, General Contractor, Mechanical Inspector, Owner's

Representative, Plans and Specifications, Plumbing Inspector, Project Manager, Sprinkler Layout Technician, Superintendent.

**Lesson 6      Avoiding Stress and Handling Crisis**

Upon completion of this lesson the trainee will be able to:

Recognize the physical changes caused by stress, and recognize when you are experiencing stress; Gain the skills to help you properly deal with stress and stressful situations; Explain the difference between short-term and long-term stress; Recognize and define the following key terms: Adrenaline, Fight-or-flight Reaction, Hypothalamus, Long-term Stress, Mediation, Relaxation, Short-term Stress, Stressors.

**Chapter II**

**Scope of Work/Pre-Planning/Schedules**

**Lesson 7      Scope of Work**

Upon completion of this lesson the trainee will be able to:

Define the meaning of "Scopes of Work" in the fire sprinkler business; Explain how the scope of work is communicated to you, the sprinkler foreman, and how the scope of work can change during the project; Determine the interface points on a project and how to ensure that each interface point is clearly defined at the beginning of a project; Explain the importance of defining the starting point and ensuring that your company does not perform work that is not part of your scope; Define the following key terms: Approvals, As-Built Drawings, Design Criteria, Inspections and Tests, Installation Requirements, Material Specifications, Operation and Maintenance Manuals, Special Systems.

**Lesson 8      Pre-Planning and Planning**

Upon completion of this lesson the trainee will be able to:

Explain the importance of pre-planning and planning your work; Ask proper questions to determine how to plan as well as to avoid potential pitfalls; Explain the purpose of pre-design and pre-construction meetings; Identify the key elements of a plan and the methods of planning; Explain how the plan and schedule are interrelated, and work together to control the project; Define the following key words: Completion Plan, Plan, POJ, Pre-plan, Schedule.

**Lesson 9      Schedules**

Upon completion of this lesson the trainee will be able to:

Explain the difference between planning and scheduling; Explain the importance of schedules and the major types used by general contractors and fire sprinkler contractors; Explain how to develop a bar chart to control the work; Identify the window of opportunity to schedule the fire sprinkler installation; Explain the impact of duration on the overall schedule; Define the following key words: Bar Chart Schedule, Critical Path Method (CPM), Duration, Events, Early Finish, Late Finish, Early Start, Late Start, Floats, Liquidated Damages, Milestones, Network Schedule, Time Frames, Window of Opportunity.

**Lesson 10      RFI, PR, ASI, CD and Change Orders**

Upon completion of this lesson the trainee will be able to:

Recognize the formal paperwork you may encounter on large projects; Recognize the changes that occur on a job; Explain how to protect your company; Explain how to make sure your company is compensated for additional work; Explain how to handle verbal orders and document properly; Recognize potential costs of handling many small change orders; Recognize the potential effects of changes on the project schedule and how to protect your company; Define the following key words: Amnesia Clause, Architects Supplemental Instructions (ASI) Request for information, Change Directive (CD) Change Order, Constructive Change Order, Direct Change Order, Proposal Request, Verbal Orders.

**Lesson 11      Daily Planning**

Upon completion of this lesson the trainee will be able to:

Explain the purpose of daily planning; Explain how to make a daily plan for your project; Determine the structure of a daily plan; Define the following key words and terms: Equipment Restraints, Job Activities, Job Areas, Job Logic, Job Restraints, Material Restraints, Safety Restraints, Schedule Restraints.

### **Lesson 12 Authority, Responsibility and Management**

Upon completion of this lesson the trainee will be able to:

Define the meaning of “responsibility” and how it relates to you, the foreman; Define your authority as a foreman and explain how to not become a tyrant; Define the concept of “delegation” and related common mistakes to avoid; Define 20%-80% rule of management; Manage by monitoring and measuring job progress; Define the following key words and terms: Accountability, Authority, “Bears in the Woods”, “Dying Cockroach Routine”, Responsibility, Trustworthiness, Vilfredo Pareto.

## **Chapter III**

### **Controlling Job Cost and Productivity**

#### **Lesson 13 Material Handling and Preventing Job Delays**

Upon completion of this lesson the trainee will be able to:

Review the stock list and determine its importance to ordering material for your project; Explain the difference between fabricated material and loose material; Evaluate the Additional Materials Request and explain the need to state the reason for the request; Explain the importance of inventorying the material and checking the material; Explain the importance of controlling the material and the job site and avoiding lost material or double-ordering material; Define the following terms: AMR, FOB, FPO, FPOB, Fabricated Materials, Loose Materials, Made-On Materials, Pro-Number.

#### **Lesson 14 Goal Setting and Tracking**

Upon completion of this lesson the trainee will be able to:

Demonstrate goal setting on a personal and work level; Explain the difference between goals and dreams; Define immediate, intermediate, and long term or strategic goals; Explain the value of tracking and measuring your progress toward a goal; Define the following words and terms: Intermediate Goals, Life Goals, Strategic Goals, Tracking.

#### **Lesson 15 Working and Coordinating with Other Subcontractors**

Upon completion of this lesson the trainee will be able to:

Recognize the foreman’s role in the coordination process; Identify the major and minor subcontractors requiring coordination; Recognize the major points of conflict with subcontractors installing HVAC, electrical, plumbing, fire alarm and other systems; Coordinate the wiring of the fire pump; Explain how to document the coordination process; Define the following words and terms: “Amnesia Clause”, High Hat Lights, “Policy of Benign Neglect”, Rotation, Service Doors, Transitions.

#### **Lesson 16 Production, Productivity and Measuring Productivity**

Upon completion of this lesson the trainee will be able to:

Explain how to focus on improving productivity; Recognize the formula “Skill x Effort – Productivity” and apply it to each fire sprinkler installation; Explain the “Big Stick or Carrot” theory in relation to productivity; Explain why workers don’t do what they are supposed to and how it kills productivity; Explain the 5% rule and how to apply it to your work site; Define the following words and terms: Change Orders, Communication, Design Errors, Disputes, Goals, Material Shortage, Production, Productivity, Scope of Work Value of Systems.

#### **Lesson 17 Get the Right Tool for the Job**

Upon completion of this lesson the trainee will be able to:

Explain the need to maintain tools; Recognize the cost of tools as a budget item; Explain the “Big Stick or Carrot” theory in relation to tool care and maintenance; Explain the reason that workers don’t care for their own as well as the company tools; Explain the 2% rule and how to apply it to your crew; Define the following

words and terms: Communication, Hand Tools, Job Tools, Special Tools, Tool Shortage, Tool Theft.

#### **Lesson 18 Performance Review and Evaluation**

Upon completion of this lesson the trainee will be able to:

Explain what a performance review is and how to use a performance review as a management tool; Explain the difference between a performance review and a pay raise; Identify the parts of a performance review and the purpose of each part; Explain the value of a performance review; Define the following words and terms: Attendance and Punctuality, Career Potential, Decision-Making Ability, General Skills, Job Knowledge, Relationships, Supervisory Ability, Verbal Communication, Work Skills, Written Communication.

### **Chapter IV**

#### **The Job is Not Done Until the Paperwork is Done**

##### **Lesson 19 Safety, Accidents and Reporting**

Upon completion of this lesson the trainee will be able to:

Explain how and why safety is a management tool and responsibility; Explain how to conduct successful "Tool Box Talks"; Identify the four main parts of a safety plan and each part's purpose; Explain the value of a safety plan in monetary and human terms; Describe your role as your company's safety representative; Recognize the different types of accidents and how to handle each; Define the following words and terms: AFSA Tool Box Talks, MSDA, OSHA, Types of Accidents.

##### **Lesson 20 Daily Logs, Weekly Reports and Job Logs**

Upon completion of this lesson the trainee will be able to:

Explain how daily logs, weekly reports and job logs are management tools; Identify the main parts of a daily log and the purpose of each; Explain the difference in reports and logs as well as the value of the reports and logs in monetary and personal terms; Explain the role of reports and your role in producing reports; Define the following words and terms: Combination Time Sheet and Progress Report, Daily Log, Job Logs, Weekly Progress Reports.

##### **Lesson 21 As-Built Plans, Operations and Maintenance Manuals, and Other Reports**

Upon completion of this lesson the trainee will be able to:

Explain how as-built plans are an important part of the completion of your project; Identify operations and maintenance manuals and explain how they are part of the completion of your project; Recognize your role in producing the as-built plans, as well as operation and maintenance manuals; Recognize common terms used regarding the completion of a project; Define the following words and terms: Approved, CO, Final Approval, Permit, Record Drawings, "Roughed In", "Tested", Work Order

##### **Lesson 22 Time Sheets, Expenses and Responsibility**

Upon completion of this lesson the trainee will be able to:

Explain how your timesheets and expenses are your responsibility; Explain the reason for completing time sheets in the proper manner; Recognize your role and responsibility for each employee and the general rules of the employee and employer relationship; Recognize the terms used regarding time sheets, expenses and the common laws and rules regarding your relationship with your crew members; Define the following words and terms: Firing, Hiring, Illegal Discrimination, Minimum Wage, Prevailing Wage, Time Sheet, Time and Material Sheet, Unlawful Questions.

##### **Lesson 23 Test Certificates and Other Test Reports**

Upon completion of this lesson the trainee will be able to:

Explain how the Contractor's Material and Test Certificate for your project is your responsibility; Explain the reason for the Contractor's Material and Test Certificate and reasons for completing them in the proper manner; Describe your role and responsibility for each required test and the relationship if the test to the

final approval in the completion plan; Recognize the terms and definitions used regarding tests; Recognize other tests that may be apart of your Completion Plan; Define the following words and terms: 2-inch Drain, Air Test, CM&TC (A), CM& TC (U), Flushing, Hydrostatic Test

**Lesson 24 Foreman's Final Report and Other Authorizations**

Upon completion of this lesson the trainee will be able to:

Recognize that completing is getting the Foreman's Final Report signed is your responsibility; Explain the reasons for the Foreman's Final Report and the reason for completing if in a proper manner; Describe your role and responsibility in the completion process and how the properly executed completion plan and the completed paperwork can benefit your company; Define the following words and terms: Authorization, Date of Last Labor, Foreman's Final Report, Instructions, Mechanic's Lien, Signs.