

INSTRUCTOR GUIDE

TOPIC: TRAINING TECHNIQUES

LEVEL OF INSTRUCTION:

TIME REQUIRED: TWO HOURS

MATERIALS: APPROPRIATE AUDIO-VISUAL MATERIALS

REFERENCES: Fire and Emergency Services Instructor, 6th ed., International Fire Service Training Association; Fire Department Safety Officer, 1st ed., International Fire Service Training Association

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PREPARATION:

MOTIVATION: If we are to have a force that is ready to perform when needed, they must be provided current and realistic training. Inadequately or improperly trained personnel present a safety hazard to themselves as well as other on the emergency scene. They also affect the effectiveness of the operation.

OBJECTIVE (SPO):

The firefighter will demonstrate a basic knowledge of the principles and techniques for delivering a training program.

OVERVIEW:

TRAINING TECHNIQUES

- * Reinforce Basics
- * Train As You Work

TRAINING TECHNIQUES

- SPO: The firefighter will demonstrate a basic knowledge of the principles and techniques for delivering a training program.
- EO 1-1 Describe techniques that can be used to reinforce basic firefighting knowledge and skills.
- EO 1-2 Describe the importance of providing training that is consistent with work practices.

This drill is designed for individuals who are responsible for delivering training sessions. This includes officers, instructors, specialists, and senior firefighters. The material in this drill should be delivered in an interactive mode and is not intended to replace any formal instructor training program.

I. REINFORCE BASICS (EO 1-1)

A. Why Reinforce Basics

1. Basic knowledge and skills are what should be used the most
2. Over time, individuals may get sloppy or careless in performing basic skills
3. Individuals may look to cut corners when performing basic skills
4. Individual knowledge may not be current
5. Some basic knowledge and skills may not be used often due to lack of real fires
6. It is the basic knowledge and skills that many times may result in an injury or death

B. What are some of the basic knowledge that need reinforcing

1. Building construction especially changes in construction materials and techniques
2. Fire extension to avoid being trapped by hidden fire
3. Scene safety to avoid contact with downed power lines, being struck by a building collapse, or accountability to avoid freelancing
4. Donning protective clothing to make sure that as much exposed skin as possible is covered
5. Air management to avoid running out of air before exiting the building
6. Signs of flashover and backdraft to avoid being trapped in a flashover or making entry before backdraft conditions are relieved
7. Being able to read smoke to better assess fire conditions
8. Ventilation theory to maximize the removal of smoke, heat, and gases in any type of structure
9. Procedures to follow when there is a need for assistance before it is too late
10. Scene lighting placement so that the whole scene is adequately lit and not just the exterior

This list provides some suggested topics for discussion. Personal experiences and past alarms may generate others.

C. What are some of the basic skills that need reinforcing

1. Ground ladder handling and placement
2. Pulling and advancing an attack line on the ground

3. Advancing hose up stairs and ladders
4. Standpipe operations
5. Connecting to hydrants
6. Placement of ventilation equipment
7. Nozzle selection, operation, and stream application
8. Carrying out horizontal and ventilation with hand and power tools
9. Basic forcible entry techniques
10. Basic knot tying and usage

This list provides some suggested skills for practice. Personal experiences and past alarms may generate others. Appendix A contains other basic skills that may need reinforcing. Each of these items should be discussed in relation to recent alarms and areas where improvement in operations could be made.

D. Conduct a skills evaluation to determine any potential deficiencies in performing basic skills. Appendix B contains some practical evaluation problems that can be used for this purpose. The results of the evaluation can be used as the basis for future training. Such an evaluation should be taken seriously and should not be used as an opportunity to embarrass anyone who has difficulty performing any skill.

E. Techniques that can be used to reinforce basics

1. Lecture
 - a. Provides new material by telling, talking, or explaining
 - b. Efficient way to send information to the receiver
 - c. Receiver listens and takes notes to acquire the knowledge
 - d. Speaker can reach people in any size group
 - e. Format can be very cost effective
2. Discussion
 - a. One-sided lecture method of delivering instruction
 - b. Allows interaction between a group and an instructor
 - c. In order to be effective, participants must have a basic knowledge of the subject before the discussion begins
 - d. Not a good format for introducing new material to inexperienced students
 - e. Works best with small groups
 - f. Categories include guided, conference, case study, role-play, and brainstorming
3. Illustration
 - a. Sometimes called lecture but really illustrated lecture
 - b. Showing method that uses both the senses of sight and hearing
 - c. Instructor uses drawings, pictures, slides, transparencies, videotapes, films, models, and other visual aids
 - d. Often improperly used as a substitute for demonstration
 - e. Can supplement a demonstration but cannot take its place

4. Demonstration
 - a. Act of showing how to do something
 - b. Basic means for teaching manipulative skills, physical principles, and mechanical functions
 - c. Instructor demonstrates a task while explaining how and why it is performed
 - d. Communicates both sight and hearing senses
 - e. When participants practice the skill, they add the sense of touch to their learning experience
 - f. Limitations
 - 1) Instructors must plan for extensive preparation and cleanup times
 - 2) Careful lesson planning is important because setup and practice often take up most of the class time
 - 3) Large groups of participants require extra equipment for practice as well as additional instructors for supervision, coaching, and safety
 - 4) Skills that require outside practice are at the mercy of the elements
 - g. Advantages
 - 1) Participants can receive feedback immediately
 - 2) Instructors can readily observe a change in behavior
 - 3) Learners have a higher level of interest when participating
 - 4) Instructors can determine what objectives have been met
 - 5) Carefully supervised skills that participants learn correctly in a safe environment give them the confidence to operate on the job
5. Use practical evolutions to demonstrate an understanding and comprehension of a particular skill or series of skills
6. Consider the use of visual aids or props to improve the understanding of the knowledge or skill
7. Include performance standards or objectives so that the expected results is clearly stated
8. Use methods of evaluating performance such as written tests, practical evaluations, group interaction, observation, etc.

II. TRAIN AS YOU WORK (EO 1-2)

A. Basic element of training as you work

1. Make sure that the instructors have the ability to deliver the training to be provided (instructor training)
2. Make sure that the instructors are technically competent for the areas in which the instruction is being provided
3. Provide instruction that is consistent with and reinforces department standard operating procedures

4. Stress teamwork and the buddy system at all times
5. Provide training that is as realistic as possible without compromising safety (remember that training is a controlled environment and we should not have little or injuries and no fatalities)
6. Provide training that is consistent with the techniques and practices utilized in the field

B. Training in Context

1. A concept where a skills is taught context of its application rather than teaching the skill as a standalone item
2. As an example, rather than just teaching someone to start a circular saw, the instruction may also include carrying the saw to the workplace, operating it to make a ventilation hole in a roof, and conducting the necessary maintenance to return it to service
3. Training in context considers the entire context in which the skill is used rather than the skill by itself
4. May help students to better understand the importance of learning a skill by understanding how it might be used

C. Other Considerations

1. Provide some form of recognition for successful completion of training
2. Consider professional certification based on applicable NFPA professional qualification standards to recognize specific training levels
3. Although it is not a professional requirement, consideration some form of firefighter recertification, re-evaluation, or refresher training on a regular basic to validate knowledge and skill levels
4. Consider some form of visible sign to indicate firefighter training levels to avoid individuals be subjected to work assignments beyond their training level
5. Make sure that any training program is documented and individual student performance is included in personnel folders
 - a. Student performance and enabling objectives
 - b. Lesson guide
 - c. Text references
 - d. Means of evaluation
 - e. Class attendance
 - f. Evaluation results

REVIEW:

TRAINING TECHNIQUES

- * Reinforce Basics
- * Train As You Work

REMOTIVATION: Train as you work and work as you train. The emergency scene should not be the training ground. Prior to arrival at the emergency scene, personnel should be properly trained to perform any tasks that may be assigned to them.

ASSIGNMENT:

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EVALUATION:

Appendix A

Supply line operations

- forward, reverse, and splits lays (single and dual lines)
- large diameter hose operations (manifolds and wyes)
- setting up folding tanks
- setting up for draft
- hydrant valve use (Humat valve operations)

Ground ladders (roof, 24 ft., 28 ft., 35 ft.)

- carrying
- raising
- climbing (working from, leg lock, and roof ladder placement)

Attack line handling

- advancing uncharged lines up and down stairs
- advancing charged lines up and down stairs
- advancing uncharged lines up ground ladders
- advancing charged lines up ground ladders
- standpipe operations (single and multiple lines, extending standpipe lines and flying standpipes)
- leader line operations

Entry

- forcing doors, windows, and roofs using hand tools
- forcing doors, windows, and roofs using power tools
- hand and power tool care and maintenance
- hoisting tools

Self-contained breathing apparatus

- operation
- donning
- maze operation
- smoke evolution
- emergency operations
- care and maintenance

Ventilation

- natural
- negative pressure (set up and operation)
- positive pressure (set up and operation)
- tactical considerations (size up)
- NPA vs. PPV

Search and rescue

- interior search

victim removal (drags, from building, down ladder)

Fire attack

interior fire attack (accountability)

primary and secondary lines

back-up teams (rapid intervention)

Appendix B

PRACTICAL EVALUATION PROBLEMS

Officer Date

- _____ 1. Select the tools and explain or demonstrate the procedure for making entry through a double hung window with multiple panes and minimal damage.
- _____ 2. Select the tools and explain or demonstrate the method for making entry through a metal covered fire door equipped with a mortise lock with minimal damage.
- _____ 3. Identify the major parts of a positive pressure self-contained breathing apparatus.
- _____ 4. Don and put into operation a positive pressure self-contained breathing apparatus within 1 minute while attired in full personal protective clothing (coat, pants, hood, helmet, boots, and gloves).
- _____ 5. Identify the hydrostatic test date on a positive pressure self-contained breathing apparatus cylinder and refill the cylinder to the appropriate pressure using a cascade system.
- _____ 6. Demonstrate the method for checking the condition of lifeline rope and explain what is being checked.
- _____ 7. Tie a bowline, clove hitch, half hitch, figure eight on a bight, becket bend, and safety knot, all within 2 minutes.
- _____ 8. Hoist a pike pole, haligan bar, smoke ejector, and roof ladder to a height of at least 20 feet using the proper knots and safety practices.
- _____ 9. Working alone, cover an arrangement of furniture using a salvage cover which has been folded in a one-person fold.
- _____ 10. With the assistance of another firefighter, fold a salvage cover for one-person usage.
- _____ 11. Explain the application and operation of a double male, double female, gated wye, siamese, fog nozzle, and solid stream nozzle.
- _____ 12. Using a modified flat load, pull and advance a pre-connected 150-foot, 1-1/2-inch, 1-3/4-inch, or 2-inch attack line. Once pulled,

demonstrate the position on the nozzle and application of the water for interior firefighting using the direct method of attack.

- _____ 13. Lay out and charge a 3-inch, 4-inch, or 5-inch supply line using a hydrant valve.
- _____ 14. Advance 150 feet of pre-connected 2-1/2-inch hose (uncharged) up an extension ladder. Exit the ladder and secure the hose to the ladder.
- _____ 15. Connect a section of 2-1/2-inch or 3-inch hose with 2-1/2-inch couplings to a section of 1-1/2-inch, 1-3/4-inch, or 2-inch hose with 1-1/2-inch couplings.
- _____ 16. Working with another firefighter, lift, carry, and raise a 24-foot extension ladder. Once raised, each person should climb, take a leg lock, and foot the ladder alternatively.
- _____ 17. Working with two other firefighters, lift, carry, and raise a 35-foot extension ladder.
- _____ 18. Working alone, demonstrate the method for carrying a roof ladder up an extension ladder and placing it on a roof.
- _____ 19. Working alone, bring a simulated unconscious victim down an extension ladder from a height of at least 15 feet.
- _____ 20. Working with another firefighter, conduct a search of a small room such as a bedroom filled with smoke, and locate and remove any victims or simulated victims found.
- _____ 21. Demonstrate the placement of a positive pressure blower for removal of smoke from an interior room.
- _____ 22. Explain the operational procedure for venting a house to relieve a backdraft condition.
- _____ 23. Demonstrate the method of carrying and using the axe, pike pole, pressurized water fire extinguisher, and haligan bar.

NOTE: All tools and appliances will be at the appropriate station and will not need to be removed from the apparatus. The IFSTA Essentials, Fourth Edition, will be the acceptable reference manual. All the skills identified are required of a Firefighter I under NFPA Standard 1001, Fire Fighter Professional Qualifications, 2002 Edition.