Safety - You Could Get Hurt Without It!
Instructor Guide

Level of Instruction:

Time Required: Two Hours

Materials:
- Audio-visual equipment to project any visuals
- Fire and Rescue Death and Injury Statistics

References:
- Essentials of Fire Fighting, 4th Edition, IFSTA
- NFPA Firefighter Death and Injury Statistics for 1999
- Emergency Care, 8th Edition, Brady

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PREPARATION:

Motivation:

Objective (SPO): 1-1

The student will demonstrate an increased awareness of the importance of safety in the fire and rescue service and a better understanding of actions that can be taken to contribute to a safer work environment.

Overview:

Safety - You Could Get Hurt Without It!
- Introduction to Safety
- Station Safety
- Vehicle Safety
- EMS Safety
- Fireground Safety
- Health and Safety programs

Safety – You Could Get Hurt Without It!

SPO 1-1 The student will demonstrate an increased awareness of the importance of safety in the fire and rescue service and a better understanding of actions that can be taken to contribute to a safer work environment.

EO 1-1 Identify the need for and benefits of having a safer work environment.

EO 1-2 Identify items within the station that can contribute to a safer environment.

EO 1-3 Identify items related to operating or working around emergency vehicles that can contribute to a safer environment.

EO 1-4 Identify items related to providing emergency medical care that can contribute to a safer environment

EO 1-5 Identify items related to fireground operations that can contribute to a safer environment.

EO 1-6 Identify items related to health and safety programs that can contribute to a safer and healthier environment.

This drill should be an interactive discussion rather than a lecture. The group leader should encourage participants to share personal observations or experiences related to safety within the fire and rescue service. Local accident reports may also be beneficial to support the discussion and localize the topic.

This drill is intended to be an overview of safety as it relates to the fire and rescue service. More time can be devoted on any particular topic within the outline based on the needs of the department.

I. Introduction to Safety (1-1)

A. Why is safety important to the fire and rescue service?
   1. In 1999, 88,500 firefighters were injured in the line of duty according to the NFPA
      a. Injuries by type of duty
         1) Fireground activities - 45,550 or 51.5%
         2) Non-fire emergencies - 13,565 or 15.3%
         3) Training - 7,705 or 8.7%
         4) Responding to or returning from alarms - 5,890 or 6.7%
         5) Other on-duty activities - 15,790 or 17.8%
      b. Injuries by nature of injury
         1) Strains, sprains, muscular pain - 41,020 or 46.4%
         2) Wounds, cuts, bleeding, bruises - 17,070 or 19.3%
         3) Burns (fire or chemical) - 4,865 or 5.5%
         4) Thermal stress (frostbite, heat exhaustion) - 4,420 or 5.0%
         5) Smoke or gas inhalation - 4,035 or 4.6%
         6) Eye irritation - 4,010 or 4.5%
         7) Dislocations, fractures - 2,910 or 3.3%
         8) Other - 10,170 or 11.4%
      c. Causes of injury
         1) Overexertion, strain - 26,727 or 30.2%
         2) Falls, slipping, jumping - 20,797 or 23.5%
         3) Exposure to fire products - 13,275 or 15.0%

4) Stepped on, contact with objects - 8,408 or 9.5%
5) Struck by an object - 7,080 or 8.0%
6) Extreme weather - 4,071 or 4.6%
7) Exposure to chemicals or radiation - 2,743 or 3.1%
8) Caught, trapped - 1,062 or 1.2%
9) Other - 4,337 or 4.9%

2. In 1999, 112 firefighters lost their lives in the line of duty according to the NFPA
   a. Deaths by type of duty
      1) Fireground activities - 54 or 48.2%
      2) Responding to or returning from alarms - 31 or 27.7%
      3) Non-fire emergencies - 10 or 8.9%
      4) Training - 3 or 2.7%
      5) Other on-duty - 14 or 12.5%
   b. Deaths by nature
      1) Heart attack - 50 or 44.6%
      2) Internal trauma - 21 or 18.7%
      3) Asphyxiation - 13 or 11.6%
      4) Burns - 8 or 7.1%
      5) Crushing injuries - 4 or 3.6%
      6) Stroke - 3 or 2.7%
      7) Electrocution - 3 or 2.7%
      8) Other - 10 or 9.0%
   c. Causes of death
      1) Stress - 56 or 50%
      2) Caught or trapped - 23 or 20.5%
      3) Struck by or contact with object - 20 or 17.8%
      4) Exposure - 4 or 3.6%
      5) Falls - 3 or 2.7%
      6) Other - 6 or 5.4%

B. Impact on injuries and death
   1. Loss of love ones
   2. Pain and suffering - temporary or permanent
   3. Insurance costs - increase in Worker's Compensation premiums
   4. Loss of time from work or disability retirement - disability payments may be less than regular income
   5. Recovery and rehabilitation

C. Safety and health regulations and standards
   1. Respiratory standard - 29 CFR 1910.134
      a. Two-in/two-out requirement

b. Mini-physical examination
c. Annual facepiece fitness testing

2. Emergency response to hazardous materials standard - 29 CFR 1910.120
   a. Incident command system
   b. Emergency response plan
   c. Training commensurate with duties
3. Bloodborne pathogens standards - 29 CFR 1910.1200
4. Various NFPA standards among them
   a. Professional qualification standards - 1000 series
   b. Hazardous materials emergency response - 471, 472, 473
   c. Live fire training evolutions - 1403
   d. Fire department occupational safety and health program - 1500
   e. Fire department infection control program - 1581
   f. Medical requirements for fire fighters and information for fire department physicians - 1582
   g. Automotive fire apparatus - 1901

D. Who is responsible for safety?
1. Officers - operational and administrative
2. Emergency vehicle operators
3. Firefighters and emergency care providers
4. EVERYONE

II. Station Safety (1-2)

A. Fire prevention
1. Safe storage and use of flammable and combustible materials
2. Proper use and maintenance of electrical equipment, appliances, and associated wiring
3. Control of ignition sources
4. Proper use and disposal of smoking materials
5. Good housekeeping
6. Installation and maintenance of fire protection systems - sprinklers, fire doors, and rated construction materials

B. Individual conduct
1. Avoiding horseplay or other activities that may result in someone being injured
2. Walk rather than run all the time

3. Remove trip hazards

C. Slip and slide hazards
   1. Mark wet floors to minimize use until dry
   2. Promptly remove ice and snow from walking areas around station
   3. Advise personnel of freshly waxed floor surfaces
   4. Secure loose carpeting and scatter rugs or mats

D. Cleanliness and personal hygiene
   1. Wash hands with soap and water as rest room use or as needed
   2. Exercise control of hazardous waste, especially biological waste
   3. Maintain cleanliness of personnel/clothing - avoid taking contamination home or elsewhere after an incident

E. Proper clothing for task
   1. Wear eye and ear protection
   2. Use respiratory protection when there is a suspected respiratory hazard present
   3. Wear hand and foot protection when working with tools or handling heavy objects

III. Vehicle Safety (1-3)

A. Boarding apparatus
   1. Apparatus should not be moving
   2. Driver should not start until everyone is seated and belted

B. Responding to alarms
   1. Everyone should stay seated and belted until apparatus comes to complete stop
   2. Everyone should pay attention to traffic conditions and surroundings in the event of a sudden stop or change of direction
   3. Personnel do not distract driver with conversation or showing map book pages

C. Exiting apparatus at scene
   1. Wait until apparatus comes to complete stop
   2. Use handrails and step off rather than jump
   3. Watch footing when exiting - be careful where you step or what you step on

4. Watch for other arriving apparatus
5. Watch for traffic - emergency lights may blind motorists
6. Watch for other personnel or apparatus operating at the scene

D. Working around apparatus
   1. Watch for open compartment doors
   2. Watch for other personnel, apparatus, and traffic
   3. Get help when removing heavy equipment
   4. Avoid long reaches
   5. Use proper lifting techniques when removing equipment

E. Driver safety
   1. Driver is responsible for the safe operation of the vehicle - maintain full control of the vehicle rather than letting it or the emergency take control
   2. Driver's job is to be get everyone to the scene safely
   3. Concentrate on driving and the surroundings - not everyone sees or hears responding apparatus
   4. Emergency vehicles only have the right-of-way when someone gives it to them
   5. Emergency lights and sirens do not exempt the driver from motor vehicle laws
   6. Let other vehicles move out of the way rather going around them
   7. Watch for moving vehicles when traffic is stopped - not everyone may know why the traffic has stopped

IV. EMS Safety (1-4)

A. Universal precautions for body fluids
   1. Hand protection - latex gloves
   2. Eye protection - goggles or safety glasses
   3. Respiratory protection - face mask
   4. Protective clothing (tyvek coveralls), if required
   5. Other protective clothing (turnout gear) at vehicle accident scenes

B. Make sure scene is safety
   1. Shootings

2. Fights
3. Domestic disturbances
4. Hazardous materials incidents

C. Monitoring patient behavior
   1. Patient could become violent
      a. Seizures
      b. Drug overdoses
      c. Mental disorder
      d. Diabetic emergencies
      e. Traumatic emergencies
   2. Have patient properly and safely secured on the cot during transport
   3. Unconscious patient who may become violent when conscious

D. Proper lifting and carrying techniques
   1. Use legs rather than back
   2. Lift as a team
   3. Communicate with team members while loading and unloading
   4. Use caution when stretcher is in raised position to avoids it collapsing

E. Care provider restraint while treating patients in moving vehicle
   1. Attempt to work in a seated and belted position
   2. Consider a strap to restrict movement should the vehicle become involved in an accident

F. Safety with equipment
   1. Properly use and dispose of sharps
   2. Exercise caution when using defibrillators around water
   3. Avoid open flame around oxygen

V. Fireground Safety (1-5)

A. Personal safety
   1. Wear personal protective clothing appropriate for the activity being undertaken
   2. Use respiratory protection with personal alert safety systems (PASS) activated whenever in a potentially dangerous to life and health environment
   3. Always work in teams - no freelancing

4. Stay with officer or make sure officer knows whereabouts
5. Practice accountability by staying with the team rather than depending on an accountability tags to maintain control of personnel
6. Allow personnel to perform only tasks for which they have been trained and equipped

B. Tool safety
   1. Carry hand and power tools properly
   2. Stop and look before using any tool
   3. Look below when working above

C. Other means of avoiding injury
   1. Watch footing and avoid falls, especially in wet and colder conditions
   2. Avoid being struck by sharp and blunt objects
   3. Protect against burns - thermal or radiation
   4. Avoid inhalation of smoke or toxic gases
   5. Be observant for the presence of energized electrical equipment or wires
   6. Work as part of the team

VI. Health and safety programs (1-6)

A. Baseline and periodic physicals
   1. Initial physical examinations
   2. Periodic physical examinations
   3. Mini-physical and annual facepiece fitness test

B. Immunization programs
   1. Hepatitis series
   2. Tetanus

C. Physical fitness and wellness
   1. Regular exercise program based on duties
   2. Dietary control
   3. Adequate rest
   4. Mental health and proper attitude

D. Exposure and contamination
   1. Report any suspected exposures or injuries immediately
   2. Document exposures or accidents regardless of whether treatment was provided

SUMMARY:

Review:

Safety - You Could Get Hurt Without It!

- Introduction to Safety
- Station Safety
- Vehicle Safety
- EMS Safety
- Fireground Safety
- Health and Safety programs

Remotivation:

Safety is not a topic by itself but an important part of everything we do in the fire and rescue service. We can either practice safety or become an injury or death statistic. If you look back, you will find that most accidents are caused by people and that people are the only ones that prevent accidents.

Assignment:

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EVALUATION: