

This Month's *Working Fire Training*...

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Approx. Program Length 53:24

FIRELINE

Fatal Chemical Plant Explosion West Helena, AR

Approx. length: 9:16

When the West Helena (AR) fire department took the call from the BPS chemical packaging plant, management said they had a smoldering bag of product. Normal S.O.P. called for a full response, but Chief Pat Sensat held firefighters back in favor of further investigation. As firefighters approached the front door, the plant exploded, killing three of the responders. This segment suggests additional precautions to be taken and covers the aftermath of the explosion. For more information, contact Chief Pat Sensat at the West Helena Fire Department, 98 Plaza Street, West Helena, AR 72390 or call him at 870-572-3445.

Training Incident Flashover West Hanover, PA

Approx. length 9:33

Prior to the search and rescue training simulation planned by the West Hanover (PA) fire department, normal pre-incident planning was carried out. However, a number of conditions added together created conditions which led to a flashover, burning six firefighters: using a polyurethane couch with straw to start the fire, removing the plaster lathe overhead which exposed wooden joists, and beginning the exercise without a charged hoseline. This incident examines these issues as well as the NFPA 1403 standard regarding gloves. For more information, contact Chief Joe Habecker at the West Hanover Fire Dept., 628 Walnut, Harrisburg, PA 17112 or call him at 717-652-9019.

HANDS-ON

R.I.T./Firefighter Survival Series Part I

Approx. length: 11:10

This is Part 1 of our multi-part Firefighter Survival series, saving firefighters through the use of rapid intervention teams. This month we concentrate on basic knowledge in the classroom covering such issues as what causes firefighter fatalities, various definitions of the rapid intervention concept, implications of NFPA 1500, and how departments might consider deploying RITs in their jurisdictions. For more information, contact Asst. Chief Greg Jakubowski, Bryn Athyn Fire Dept. P.O. Box 557, Bryn Athyn, PA 19009 or call him at 215-947-1100.

This Month's "Working Fire"

HANDS-ON (cont.)

Building Collapse Training Part I

Approx. length: 8:21

Summertime weather means tornadoes and thunderstorms with straight-line winds. That can mean responding to collapsed structures. The Cottleville (MO) Community Fire Protection District has put together a smooth-running building collapse training simulation with plenty of tips for interested departments. This month, Part 1 of this three-part series covers setting up the simulation, running the search-and-rescue portion of the operation while concentrating on the necessary shoring and reinforcing techniques. For more information, contact Brian Gettemeier, head instructor, Cottleville Comm. FPD., 1385 Motherhead Road, Cottleville, MO 63338 or call him at 314-447-1200.

FIRE MEDICS

Critical Incident Stress Management in the Smaller Department Part II

Approx. length 8:11

Steve Holden, a fire chaplain with the Macon County (IL) Fire Association, completes the final part of our Critical Incident Stress Management (CISM) series. Steve recaps last month's segment, covers the warning signs that responders might exhibit, signaling the need for CISM, and how Critical Incident Stress Management may often extend to the families of responders and to the community at large. For more information, contact Steve Holden through Working Fire at 800-516-3473.

EVOLUTIONS 2000

Kramer vs. Kramer A college credit program for subscribers, Part II

Approx. length: 3:35

Last month, *Working Fire* announced its new association with Bill Kramer, professor of fire science at the University of Cincinnati and fire chief of the Indianapolis International Airport Fire Department. This month Bill provides additional details about how to sign up and work toward a degree in fire science and explains how *Working Fire* subscribers can get college credit from the University of Cincinnati by taking a test on each month's Working Fire video. For more information, contact the Open Learning Fire Service Program, College of Applied Science, 2220 Victory Parkway, ML #103, Cincinnati, Ohio 45206 or call 513-556-6583.

This Month's "Working Fire"

DISCUSSION QUESTIONS FOR THIS MONTH'S INCIDENTS

Here are some questions for use in reviewing this month's incidents. Use them as discussion-starters in your own department's training sessions.

Fatal Chemical Plant Explosion/West Helena, AR

1. If there are chemical plants or facilities with haz-mat potential in your jurisdiction, have you preplanned them thoroughly? Are you familiar with reading Material Safety Data Sheets (MSDS)? (OSHA requires them to be kept on-premise.) Consider surprise inspections and be able to identify with assurance all chemicals. Then match them with the appropriate MSDS.
2. Are you knowledgeable as to what chemicals may react badly with normal fire suppression materials such as water from hoses or sprinklers?

Training Incident Flashover/West Hanover, PA

1. Have you considered what your true objectives are in a training evolution? For example, if you're drilling on search-and-rescue, you only need enough fire to create a smoky environment.
2. If you are training in a structure other than a certified burn facility, have you studied the burnable material on-premise? Do you have the necessary fire suppression on hand (charged hoselines, extinguishers, etc.) to maintain control as the training evolves?
3. Are all participants fully aware of all exits from the structure and the placement of safety officers on-scene? Have procedures been set up for firefighters (who may be relatively untrained or unused to such environments) to summon help should they need it?

Enhanced Training

R.I.T./Firefighter Survival Series, Part I

Objectives

After watching this program the student shall:

1. understand the concept and purpose of Rapid Intervention Teams (RIT)
2. understand some of the reasons for firefighters fatalities
3. understand some of the codes involved with RIT
4. understand how departments can work together.

Standards and Regulations

This training is consistent with NFPA 1500 and 1561 and recognizes applicable state OSHA standards.

Training Outline

A. REASONS FOR IMPLEMENTATION

1. Firefighter death case studies information
2. Causes of firefighter deaths
3. Rapidly deteriorating conditions
4. Poor communications
5. Inexperienced officers
6. Failure to wear SCBA
7. Water loss
8. Failure to identify problems
9. Energy-efficient windows
10. Failure to utilize PASS
11. Poor survival training
12. Freelancing

B. COMMON CHARACTERISTICS OF FIREFIGHTER FATALITIES

1. Failure to follow procedures
2. Lack of awareness and communications
3. Lack of command, coordination, accountability and knowledge
4. Lack of Use of PASS
5. User Failure to routinely check SCBA

C. DEFINITION/ACRONYMS FOR TEAM IMPLEMENTATION

1. RIC = Rapid Intervention Crew
2. RIT = Rapid Intervention Team
3. FAST = Firefighter Assist and Search Team (New York City Fire Department)

Answers to quiz on following page:

1. False 2. True 3. False 4. b. 5. d.

R.I.T./Firefighter Survival Series, Part I

4. RAT = Rescue Assist Team
5. IRT = Immediate Response Team
6. FRAT = Firefighter Rescue Available Team
7. RDU = Rapid Deployment Unit
8. GO Team = used by Pittsburgh Bureau of Fire

D. APPLICABLE STANDARDS/REGULATIONS

1. NFPA 1500
 - a. Personnel must be provided for member rescue
 - b. One or more teams assigned
 - c. Minimum of 2 rescuers
 - d. Appropriate PPE
 - e. Special operations considerations
2. NFPA 1561
 - a. 4-1.8 - Fire Dept. shall provide for the rescue of individuals operating at emergency incidents. Minimum of 2 rescuers required.
3. OSHA
 - a. Volunteers not considered employees
 - b. Does not directly cover all public employees
 - c. However, these groups may be covered under state OSHA programs
 - d. OSHA interpretations indicate 2 workers in = 2 workers out

E. SITUATIONS REQUIRING RICs

1. Sudden hazardous events
2. Lost/trapped/unaccounted for firefighter
3. Flashover
4. Backdraft
5. Rapid fire increase
6. Explosion
7. Collapse

F. RIC IMPLEMENTATION

1. Preplanned, SOP, mutual aid
2. Type of vehicle
3. May require more than one
4. Dispatch protocol (determine locally, depending on existing resources and available mutual aid)

R.I.T./Firefighter Survival Series, Part I: Quiz

Date _____

Chief/T.O. _____

Firefighter (print) _____

Education Credits/
Hours/Units _____

Signature _____

Select the best answer:

1. True or False Rapid Intervention Teams don't respond to firefighters caught in a haz-mat situation.
2. True or False RIT, RIC, and FAST all mean the same thing.
3. True or False A PASS device can't save your life.
4. Which of the following will not jeopardize the life of a firefighter?
 - a. freelancing
 - b. following protocol
 - c. poor communications
 - d. poor survival training
5. The following codes may be in force in your area:
 - a. NFPA 1500
 - b. NFPA 1561
 - c. State OSHA codes
 - d. all of the above

(Correct answers can be found at the top of the previous page)

Enhanced Training

Building Collapse Training, Part I

Objectives

After watching this segment the student shall:

1. have a basic understanding of running a building collapse training evolution
2. have a basic knowledge of structure and material acquisition
3. have knowledge of the operational and construction functions of the evolution.

Standards and Regulations

NFPA 1500, all state OSHA regulations, and local building codes

Training Outline

A. INTRODUCTION

Building Collapse Training is an important part of any search-and-rescue operation. But there are two distinct operational skills to be learned: (1) search-and-rescue procedures and (2) building structure support techniques such as shoring and stabilization as well as construction preparation of the collapsed structure itself. This series will deal with both concurrently.

B. ACQUIRING MATERIALS

Before a structure can be used for training it must be acquired and prepared for the collapsed building evolution. Many sources exist for acquiring materials:

1. Houses:
 - a. State highway departments often buy buildings for right-of-way access. Before these homes are razed, they can be donated for training purposes.
 - b. Check with local housing authorities to locate condemned buildings.
2. Materials:
 - a. Check with salvage yards for scrap lumber. Shipping companies often have used pallets available that otherwise would be scrapped.
 - b. Check with local lumber yards or hardware stores. They often will donate practically new items (lumber, tools) for the goodwill and tax deduction.
 - c. Keep aware of companies or light industry in your area that may be moving. They may have articles available if your department will pick them up.
 - d. In an actual emergency, take the materials for payment later.

Answers to quiz on following page:

1. False
2. True
3. False
4. b.
5. d.

Building Collapse Training, Part I

C. PREPARING STRUCTURE FOR EVOLUTION

1. Assign a squad to configure the house according to some disaster scenario (tornado, earthquake, etc.)
2. Choose a reasonable amount of collapse. In our training example, the carport and the living room ceiling had collapsed, a tree had fallen through the house and the foundation had sustained a large crack. These obstacles provide realistic problems to train on.
3. Using acquired materials, prepare the structure to portray the scenarios including the placement of victim dummies. Build them in such a way that multiple teams can train in the same structure after minor reconstruction.

D. SEARCH-AND-RESCUE OPERATION

Run and maintain the simulation just as any real incident. All the regular command positions should be filled: Incident Command, Accountability, Safety, Operations, EMS, etc. All normal protocol regarding protective equipment should be followed.

1. Run normal Search-and-Rescue detail; first entry crew establishes damage to structure and ascertains whether or not there are victims trapped in the structure.
2. Establish plan of rescue taking structural faults into account.

E. SET UP CONSTRUCTION STATIONS

1. Establish Cutting and Construction stations based on proximity to structural faults and what kind of reinforcement will be needed: shoring, brace-building, cribbing, etc.
2. Use double-headed nails which can be removed and reused by other crews and for training at another time.
2. Make ready specific rescue equipment that will be needed on the interior: airbags, jacks, air delivery hoses, etc.

Building Collapse Training, Part I: Quiz

Date _____

Chief/T.O. _____

Firefighter (print) _____

Education Credits/
Hours/Units _____

Signature _____

Select the best answer:

1. True or False When drilling in a collapsed structure, hardhats don't need to be worn since it's only a training exercise.
2. True or False Shoring and reinforcement should be based on the rescue plan.
3. True or False The Accountability Officer doesn't have to keep track of who is in working on the Cutting crew; just the Search-and-Rescue squad inside.
4. A good source for houses available for building collapse training is:
 - a. a realtor
 - b. the highway department
 - c. the center for disease control
 - d. all of the above.
5. In an actual emergency, a responder might:
 - a. steal a nearby deck
 - b. commandeer a vehicle
 - c. have the electricity turned off
 - d. all of the above

(Correct answers can be found at the top of the previous page)