

LESSON ONE

FIREFIGHTER I

Loss Control - Salvage

DOMAIN: PSYCHOMOTOR

LEVEL OF LEARNING: APPLICATION

MATERIALS

IFSTA Essentials 5th edition or Jones and Bartlett Fundamentals of Fire Fighter Skills 2nd Edition or Delmar Firefighter's Handbook 3rd Edition; salvage covers, long pike poles, ladder, and suitable props for demonstrating salvage cover techniques; Class A Pumper; overhead projector or laptop computer and multimedia projector; projection screen and flip chart.

NFPA 1001 JPRs, 2008 edition

5.3.14 Conserve property

5.5.1 Clean and check ladders, ventilation equipment, self-contained breathing apparatus (SCBA), ropes, salvage equipment, and hand tools

Junior Member Statement:

Junior Member training activities should be supervised by qualified instructors to assure that the cognitive and psychomotor skills are completed in a safe and non-evasive manner. While it is critical that instructors be constantly aware of the capabilities of all students both mentally and physically to complete certain tasks safely and successfully, the instructor should take every opportunity to discuss with departmental leaders and students the maturity and job awareness each participant has for the hazards associated with fire and rescue training.

TERMINAL OBJECTIVE

The Firefighter I candidate shall correctly identify in writing the purpose of salvage and its value to the public and the fire department. Given salvage equipment, the candidate shall demonstrate various folds, rolls, deployment of salvage covers, construction and use of water chutes and catchalls.

ENABLING OBJECTIVES

1. The Firefighter I candidate shall correctly identify in writing the purpose of salvage.
2. The Firefighter I candidate shall correctly identify in writing the procedures for implementing salvage operations.
3. The Firefighter I candidate shall correctly identify in writing the tools most commonly used in salvage operations.
4. The Firefighter I candidate shall correctly demonstrate preparing and using a one firefighter spread with a rolled salvage cover.
5. The Firefighter I candidate shall correctly demonstrate preparing and using a one firefighter spread using a folded salvage cover.
6. The Firefighter I candidate shall correctly demonstrate preparing and using a folded cover for a two firefighter spread.
7. The Firefighter I candidate shall correctly demonstrate the balloon throw.
8. The Firefighter I candidate shall correctly demonstrate constructing a water chute with and without the use of pike poles, and with the use of pike poles and a ladder.
9. The Firefighter I candidate shall correctly demonstrate constructing a water catch-all.

LESSON 1

FIREFIGHTER I

Loss Control - Salvage

MOTIVATION

Loss control is an essential component of fire fighting. Implementation of appropriate salvage and overhaul techniques can dramatically reduce fire, water, and smoke damage during and after fires. Improved techniques in extinguishing fires plus prompt and effective use of good salvage procedures results in a more systematic approach to minimize property losses. Good salvage and good loss control management not only reduces fire loss but also builds a favorable rapport with the community.

PRESENTATION

ENABLING OBJECTIVE #1

The Firefighter I candidate shall correctly identify in writing the purpose of salvage.

1. Discuss the philosophy of loss control.
 - a) Minimize damage.
 - b) Builds strong community support.
 - c) May contribute to a shorter reconstruction / restoration period.

2. Define salvage operations.
 - a) They are the methods and SOGs that aid in reducing primary and secondary fire damage.

3. Discuss the value and criteria for salvage preplanning.
 - a) Encourage the use of good salvage practices in the fire service.
 - b) Develop operational techniques that promote quality teamwork.
 - c) Provides for ease of operation.
 - d) Identifies special needs for high value or hazardous material facilities.
 - e) Enhances public relations.

Reference:

Delmar Handbook 3rd edition, pages 727

J&B Fundamentals 2nd edition, pages 559-560

IFSTA Essentials 5th edition, pages 868-870

PRESENTATION

ENABLING OBJECTIVE # 2

The Firefighter I candidate shall correctly identify in writing the procedures for implementing salvage operations.

1. Advise candidates that salvage can begin while fire attacks are in progress and give examples.
 - a) Cover contents below the fire floor level.
 - b) Gather and cover contents in rooms not immediately threatened by fire.
 - c) Discuss how to catch debris.
 - d) Gather furnishing in piles near the center of the room.
 - e) Raise furnishing off wet surfaces.
2. Discuss the special concerns when dealing with commercial sites.
 - a) The ability to cover all contents may be limited due to access capability or lack of sufficient number of covers.
 - b) Stock not resting on pallets will be susceptible to water damage.
 - c) Paper products stacked high with the bottom of the stack saturated with water create a significant fall hazard.
 - d) Water left on wooden tabletops, desks, and chairs can be ruined.
3. Discuss salvage cover maintenance.
 - a) Regular cleaning and inspection of salvage covers increase duty span of the cover.
 - b) Cleaning of canvas salvage covers usually require only a thorough rinsing.
 - c) Heavy stains may require scrubbing with a detergent followed by a thorough rinsing.
 - d) Synthetic covers require less maintenance than canvas covers.
 - e) After cleaning allow the covers to dry thoroughly.

- f) Inspect covers for holes and excessive wear.

Reference:

Delmar Handbook 3rd edition, pages 728-735

J&B Fundamentals 2nd edition, pages 559-571

IFSTA Essentials 5th edition, pages 870-871, 873

PRESENTATION

ENABLING OBJECTIVE #3

The Firefighter I candidate shall correctly identify in writing the tools most commonly used in salvage operations.

1. Give a brief description of the various tools and their function as applied in salvage operations.
 - a) Hand tools.
 - b) Automatic sprinkler kits.
 - c) Carryalls (debris bags).
 - d) Floor runners.
 - e) De-watering devises.
 - f) Water vacuum.

Reference:

Delmar Handbook 3rd edition, pages 728-730

J&B Fundamentals 2nd edition, pages 260-265

IFSTA Essentials 5th edition, pages 873-877

PRESENTATION

ENABLING OBJECTIVE #4

The Firefighter I candidate shall correctly demonstrate preparing and using a one firefighter spread with a rolled salvage cover.

1. Demonstrate the steps to create a salvage cover roll.
2. Demonstrate the steps for a one-firefighter spread using a rolled salvage cover.

Reference:

Delmar Handbook 3rd edition, pages 731-733

J&B Fundamentals 2nd edition, pages 568-572

IFSTA Essentials 5th edition, page 878

APPLICATION

Divide the class into equal groups and provide a salvage cover to each group if possible. Allow each group to practice creating a salvage cover roll. Allow each candidate in the group to practice the one firefighter spread with a rolled salvage cover.

PRESENTATION

ENABLING OBJECTIVE #5

The Firefighter I candidate shall correctly demonstrate preparing and using a one firefighter spread using a folded salvage cover.

1. Demonstrate the steps for creating a folded salvage cover for a one-firefighter spread.
2. Demonstrate the steps for a one fire fighter spread using a folded salvage cover.

Reference:

Delmar Handbook 3rd edition, pages 733-734

J&B Fundamentals 2nd edition, pages 569, 572-573

IFSTA Essentials 5th edition, page 878

APPLICATION

Divide the class into groups and provide each group with a salvage cover. Have each group practice properly folding a salvage cover. Allow each candidate in the group to practice a one firefighter spread using a folded salvage cover.

PRESENTATION

ENABLING OBJECTIVE #6

The Firefighter I candidate shall correctly demonstrate preparing and using a folded salvage cover for a two firefighter spread.

1. Demonstrate preparing a folded salvage cover for a two person spread.

2. Demonstrate deploying the two-person spread using a folded salvage cover.

Reference:

Delmar Handbook 3rd edition, pages 733, 735

J&B Fundamentals 2nd edition, pages 570 & 573

IFSTA Essentials 5th edition, pages 878-879

APPLICATION

Divide the class into groups and provide each group with a salvage cover. Allow each candidate in the group to demonstrate preparing a folded salvage cover for a two-person spread.

PRESENTATION

ENABLING OBJECTIVE #7

The Firefighter I candidate shall correctly demonstrate the balloon throw.

1. Demonstrate the steps for efficiently executing a balloon throw using a salvage cover.

Reference:

Delmar Handbook 3rd edition, pages 738-739

J&B Fundamentals 2nd edition, page 573

IFSTA Essentials 5th edition, page 879

APPLICATION

Divide the class into groups and provide each group with a salvage cover. Allow each candidate in the group to spread the salvage cover with the balloon throw.

PRESENTATION

ENABLING OBJECTIVE #8

The Firefighter I candidate shall correctly demonstrate constructing a water chute with and without the use of pike poles, and with the use of pike poles and a ladder.

1. Explain the uses and advantages of a water chute.

2. Demonstrate the steps for creating a water chute without pike poles.
3. Demonstrate the construction of a water chute with pike poles and a ladder.
4. Demonstrate the construction of a water chute using two pike poles and a salvage cover.

Reference:

Delmar Handbook 3rd edition, pages 740-741

J&B Fundamentals 2nd edition, pages 564-566

IFSTA Essentials 5th edition, page 879

NOTE: Water chutes are devices used to route water short distances through doors, windows, or other openings. One of the most practical means of removing water coming through ceilings from upper floors is by chutes.

APPLICATION

Divide the class into groups and allow each group to construct a water chute using 2 pike poles and a ladder.

PRESENTATION

ENABLING OBJECTIVE #9

The Firefighter I candidate shall correctly demonstrate constructing a water catch-all.

1. Briefly discuss the definition and uses of a water catch-all.
2. Demonstrate the construction of a catch-all.
3. Discuss alternate methods of constructing a catch-all.

Reference:

Delmar Handbook 3rd edition, pages 740-741

J&B Fundamentals 2nd edition, pages 564 & 566

IFSTA Essentials 5th edition, pages 879-880

NOTE: A catch-all is constructed from a salvage cover that has been placed on the floor to contain relatively

small amounts of water. Properly constructed catch-alls will hold over a hundred gallons of water and save valuable time during salvage work by catching water and limiting its spread into other areas.

APPLICATION

Divide the class into groups and provide each group with a salvage cover. Allow each candidate to construct a water catch-all.

SUMMARY

Review the philosophy of salvage operations and its associated equipment needs.

Review the different types of salvage operations.

Demonstrate again any of the salvage skills that the candidates may have problems with.

LESSON TWO

FIREFIGHTER I

Loss Control - Salvage

DOMAIN: PSYCHOMOTOR

LEVEL OF LEARNING: APPLICATION

MATERIALS

IFSTA Essentials 5th edition or Jones and Bartlett Fundamentals of Fire Fighter Skills 2nd Edition or Delmar Firefighter's Handbook 3rd Edition; Class A Pumper; water pump; salvage covers, pike poles, step or combination ladder, two 4x8 sheets of plywood, nails, and hammers; overhead projector or laptop computer and multimedia projector; projection screen.

NFPA 1001 JPR, 2008 edition

5.3.14 Conserve property

Junior Member Statement:

Junior Member training activities should be supervised by qualified instructors to assure that the cognitive and psychomotor skills are completed in a safe and non-evasive manner. While it is critical that instructors be constantly aware of the capabilities of all students both mentally and physically to complete certain tasks safely and successfully, the instructor should take every opportunity to discuss with departmental leaders and students the maturity and job awareness each participant has for the hazards associated with fire and rescue training.

TERMINAL OBJECTIVE

The Firefighter I candidate shall correctly demonstrate the use of salvage covers to close structural openings, remove debris, and divert water from interior portions of the structure.

ENABLING OBJECTIVES

1. The Firefighter I candidate shall correctly demonstrate covering a door opening.
2. The Firefighter I candidate when given salvage covers shall correctly demonstrate covering windows.
3. The Firefighter I candidate when given salvage covers shall correctly demonstrate covering floors.
4. The Firefighter I candidate shall correctly demonstrate the covering of a roof.
5. The Firefighter I candidate shall correctly demonstrate the removal of debris and routing of water from a structure.
6. The Firefighter I candidate shall correctly demonstrate removing water with pumps and water vacuums.

LESSON TWO

FIREFIGHTER I

Loss Control - Salvage

MOTIVATION

When buildings have been opened up to permit firefighter access they become vulnerable both to vandalism and weather. Therefore, it is imperative that firefighters take the necessary actions to adequately secure all openings in the building before leaving the premises. During fire attack, buildings are often subjected to extensive water damage. However, this damage can be reduced through proper salvage operations. Firefighters should possess a good understanding of how to use salvage covers and other salvage techniques to accomplish this task. Salvage equipment can be used to reduce the damage from most fire ground operations. Like most emergency equipment, salvage equipment must be well maintained to achieve optimum use during fire ground operations.

PRESENTATION

ENABLING OBJECTIVE #1

The Firefighter I candidate shall correctly demonstrate covering a door opening.

1. List materials used to cover door openings.
2. Lead the class in a discussion of how the need for door covering may arise.
3. Explain the need for security.
4. List and discuss building materials that may be used to secure door openings.

Reference:

IFSTA Essentials 5th edition, pages 880

PRESENTATION

ENABLING OBJECTIVE #2

The Firefighter I candidate when given salvage covers shall correctly demonstrate covering windows.

1. List materials used to cover window openings.
2. Lead the class in a discussion of how the need for window covering may arise.
3. Explain the need for security.
4. List and discuss building materials that may be used to secure window openings.

Reference:

IFSTA Essentials 5th edition, pages 880

PRESENTATION

ENABLING OBJECTIVE #3

The Firefighter I candidate when given salvage covers shall correctly demonstrate covering floors.

1. List materials used to cover floor openings such as scuppers.
2. Lead the class in a discussion of how the need for floor covering may arise.
3. Explain the need for security.
4. List and discuss building materials that may be used to secure floor openings.
5. List items to look for when checking the stability of a floor.
 - a) Sagging floors.
 - b) Holes in floors.
 - c) Deep charring on floor.
 - d) Water load and firefighter load.
6. Discuss unusual conditions of bathrooms and kitchens.

- a) Tubs.
 - b) Sinks.
 - c) Toilet.
 - d) Stove.
 - e) Refrigerator.
 - f) Dishwasher.
7. Discuss and describe how to barricade or mark a room to prevent accidental entry.

Reference:

IFSTA Essentials 5th edition, pages 880, 882

APPLICATION

Divide firefighters into equal groups. Establish stations and provide materials for groups to demonstrate the covering of a door opening, covering of a window opening, and the covering of floor openings.

PRESENTATION

ENABLING OBJECTIVE #4

The Firefighter I candidate shall correctly demonstrate the covering of a roof.

1. Discuss the safety aspects of working on a roof during and following a fire.
2. Discuss methods for checking for roof stability.
3. Discuss how adverse weather conditions can increase the chance of firefighter injury.
4. List and discuss the various covering materials.
5. Explain how to cover a hole on a pitched roof.
6. Explain how to cover a hole near the peak of the roof.
7. Explain covering holes in a flat roof.
8. Describe procedures to prevent water seepage under covering.

9. Describe methods of covering skylights, roof hatches and airshafts.

PRESENTATION

ENABLING OBJECTIVE #5

The Firefighter I candidate shall correctly demonstrate the removal of debris and routing of water from a structure.

1. Discuss reasons for removing water and debris from buildings.
2. Identify ways of routing water.
 - a) Floor drains.
 - b) Soil pipe openings.
 - c) Removing clean out plugs.
 - d) Lifting toilets from floor connections.
 - e) Stairways.
 - f) Holes cut in floors.
 - g) Elevator and/or ventilation shafts.
 - h) Use of chutes or dikes.

NOTE: After the protection of building contents, the removal of excess water is normally the most important salvage function. Not only is water a concern because of its weight and its natural tendency to travel downward in a building, but because it accumulates or is absorbed in areas that may lack drainage. A basic fact of fire fighting is that water places additional weight in a building and can significantly contribute to the collapse of structural members.

PRESENTATION

ENABLING OBJECTIVE #6

The Firefighter I candidate shall correctly demonstrate removing water with pumps and water vacuums.

1. Explain that fire department pumpers are not to be used.
2. Discuss various means of removing water.

- a) Diaphragm pumps.
- b) Electric submersible pumps.
- c) Portable pumps.
- d) Vacuum cleaner or water vacuum.
- e) Backpack water vacuum.
- f) Brooms, squeegees, buckets, mops and pails.
- g) Removing water from basements using drains and sumps.
- h) Portable pumps or submersible pumps.
- i) Siphons or eductors.

Reference:

J&B Fundamentals 2nd edition, pages 563-565

NOTE: When water is discharged outside the building, it should be directed so it does not run back into the fire building or into an adjacent building creating additional water damage.

SUMMARY

Summarize reasons for closing building openings.

Discuss the safety aspects of closing openings.

Summarize removal of debris and maintenance of salvage equipment.