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## **SALVAGE AND OVERHAUL (A SUBTOPIC OF LOSS CONTROL) (1.1)**

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- NFPA 1001

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### **TASK SKILL DESCRIPTION AND DETAIL**

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**Salvage** – Salvage consists of those operations associated with firefighting that aid in reducing primary and secondary damage during firefighting operations. Primary damage is that caused by the fire; secondary damage is that caused by suppression activities.

- Salvage Task: Save property and reduce further damage from water, smoke, heat and fire
- Salvage is meant to minimize damage and provide customer service through effective mitigation and recovery efforts before, during and after an incident
- Salvage operations can be started at the same time as fire attack if on-scene resources permit
- When possible, group building contents into compact piles that can be covered with a minimum of salvage covers
- Try to arrange the items so the water will run off the salvage cover
- Furniture sitting on wet carpet can be placed on canned goods from the kitchen
- Salvage covers may also be used to catch and route water from firefighting operations or other structural flooding situations.
- Water chutes may be constructed on the floor below the firefighting operations to drain runoff through windows or doors.
- A catchall is constructed from a salvage cover that has been placed on the floor to hold small amounts of water. The catchall may also be used as a temporary means to control large amounts of water until chutes can be constructed to route the water to the outside.
- Folds, rolls, chutes and catchalls

### **ONE - FIREFIGHTER SPREAD WITH A ROLLED SALVAGE COVER**

- To fold – two firefighters must make the initial folds to reduce the width of the cover to form this roll (see Figure 1)

**Step 1:** Grasp the cover with the outside hand midway between the center and the edge to be folded.

**Step 2:** Place the other hand on the cover as a pivot, midway between the outside hand and the center.



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Figure 1

**Step 3:** Bring the fold over to the center of the cover. This creates an inside fold (center) and an outside fold (see Figure 2).



Figure 2



**Step 4:** Grasp the cover corner with the outside hand.

**Step 5:** Place the other hand as a pivot on the cover over the outside fold.

**Step 6:** Bring this outside edge over to the center, and place it on top of and in line with the previously placed first fold (See Figure 3).



Figure 3

**Step 7:** Fold the other half of the cover in the same manner by using Steps 1-6.

**Step 8:** Straighten the folds if they are not straight.

**Step 9:** Fold over about 12 inches at each end of the cover to make clean, even edges for the completed roll (see Figure 4)





Figure 4

**Step 10:** Start the roll by rolling and compressing one end into a tight compact roll; roll toward the opposite end (see Figure 5).



Figure 5





**Step 11:** Tuck in any wrinkles that form ahead of the roll as the roll progresses (see Figure 6)



Figure 6



### **To Spread – One-Firefighter Method**

**Step 1:** Start at one end of the object to be covered.

**Step 2:** Unroll a sufficient amount to cover the end (see Figure 7).



**Figure 7**

**Step 3:** Unroll toward the opposite end and let the rest of the roll fall into place at the other end.

**Step 4:** Stand at one end.

**Step 5:** Grasp the open edges where convenient, one edge in each hand.

**Step 6:** Open the sides of the cover over the object by snapping both hands up and out (see Figure 8).



**Figure 8**

**Step 7:** Open the other end of the cover over the object in the same manner (see Figure 9)



**Figure 9**





**Step 8:** Tuck in all loose edges at the bottom (see Figure 10).



**Figure 10**

**ONE - FIREFIGHTER SPREAD WITH A FOLDED SALVAGE COVER**

- To fold – two firefighters must make the initial folds to reduce the width of the cover to form this fold.

**Step 1:** Grasp the cover with the outside hand midway between the center and the edge to be folded.

**Step 2:** Place the other hand on the cover as a pivot, midway between the outside hand and the center (see Figure 11).



**Figure 11**

**Step 3:** Bring the fold over to the center of the cover. This creates an inside fold (center) and an outside fold (see Figure 12).



**Figure 12**



**Step 4:** Grasp the cover corner with the outside hand.

**Step 5:** Place the other hand as a pivot on the cover over the outside fold.

**Step 6:** Bring this outside edge over to the center, and place it on top of and in line with the previously placed first fold (see Figure 13).



**Figure 13**

**Step 7:** Fold the other half of the cover in the same manner by using Steps 1-6.

**Step 8:** Straighten the folds if they are not straight.

**Step 9:** Grasp the same end of the cover, with the cover folded to reduce width.

**Step 10:** Bring this end to a point just short of the center (see Figure 14).





Figure 14

**Step 11:** Use one hand as a pivot and bring the folded end over and place on top of the first fold.

**Step 12:** Fold the other end of the cover toward the center, leaving about 4 inches between the two folds (see Figure 15).



Figure 15



**Step 13:** Place one fold on top of the other for the completed fold; the space between the folds now serves as a hinge (see Figure 16).



Figure 16



### **To Spread – One-Firefighter Method**

**Step 1:** Lay the folded cover on top of and near the center of the object to be covered (see Figure 17).



**Figure 17**

**Step 2:** Separate the cover at the first fold.

**Step 3:** Select an end and continue to unfold the salvage cover by separating the next fold.

**Step 4:** Unfold this same end toward the end of the object to be covered (see Figure 18).





**Figure 18**

- Step 5:** Grasp the end of the cover near the center with both hands to prevent the corners from falling outward.
- Step 6:** Bring the end of the cover into position over the end of the object being covered.
- Step 7:** Unfold the other end of the cover in the same manner over the object.
- Step 8:** Stand at one end.
- Step 9:** Grasp the open edges where convenient, one edge in each hand.
- Step 10:** Open the sides of the cover over the object by snapping both hands up and out (see Figure 19).



Figure 19

**Step 11:** Open the other end of the cover over the object in the same manner (see Figure 20).



Figure 20



**Step 12:** Tuck in all loose edges at the bottom (see Figure 21).



**Figure 21**

## **TWO – FIREFIGHTER SPREAD WITH A FOLDED SALVAGE COVER**

- To fold – two firefighters must make the initial folds to reduce the width of the cover to form this fold.

**Step 1:** Grasp the cover with the outside hand midway between the center and the edge to be folded.

**Step 2:** Place the other hand on the cover as a pivot, midway between the outside hand and the center (see Figure 22).





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**Figure 22**

**Step 3:** Bring the fold over to the center of the cover. This creates an inside fold (center) and an outside fold (see Figure 23).



**Figure 23**



**Step 4:** Grasp the cover corner with the outside hand.

**Step 5:** Place the other hand as a pivot on the cover over the outside fold.

**Step 6:** Bring this outside edge over to the center, and place it on top of and in line with the previously placed first fold (see Figure 24).



Figure 24

**Step 7:** Fold the other half of the cover in the same manner by using Steps 1-6.

**Step 8:** Straighten the folds if they are not straight.

**Step 9:** Grasp the same end of the cover, with the cover folded to reduce width.

**Step 10:** Bring this end to a point just short of the center (see Figure 25).



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**Figure 25**

**Step 11:** Use one hand as a pivot and bring the folded end over and place on top of the first fold.

**Step 12:** Fold the other end of the cover toward the center, leaving about 4 inches between the two folds (see Figure 26).





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**Figure 26**

**Step 13:** Place one fold on top of the other for the completed fold; the space between the folds now serves as a hinge (see Figure 27).



**Figure 27**



### **To Spread – Two-Firefighter Balloon Throw**

**Step 1:** Stretch the cover along one side of the object to be covered (see Figure 28).



**Figure 28**

**Step 2:** Separate the last half-fold by grasping each side of the cover near the ends.

**Step 3:** Lay the side of the cover closest to the furniture on the ground.

**Step 4:** Make several accordion folds in the inside hand.

**Step 5:** Place the outside hand about midway down the end hem.

**Step 6:** Place the inside foot on the corner of the cover to hold it in place (see Figure 29).





**Figure 29**

**Step 7:** Pull the cover tightly between each firefighter (see Figure 30).



**Figure 30**

**Step 8:** Swing the folded part down, up, and out in one sweeping movement in order to pocket as much air as possible.





**Step 9:** Pitch or carry the accordion folds across the object when the cover is as high as each firefighter can reach. This action causes the cover to float over the object (see Figure 31).



**Figure 31**

**Step 10:** Guide the cover into position as it floats over the object.

**Step 11:** Straighten the sides for better runoff (see Figure 32).



**Figure 32**

## **REMOVING WATER WITH CHUTES**

### **To construct – without pike poles**

**Step 1:** Open the salvage cover.

**Step 2:** Lay the cover flat at the desired location.

**Step 3:** Roll the opposite edges of the salvage cover toward the middle until there is a 3-foot width between the rolls (see Figure 33).



**Figure 33**

**Step 4:** Turn the cover over.

**Step 5:** Adjust the chute to collect and channel water by elevating one end (see Figure 34).





**Figure 34**

**Step 6:** Extend the other end out a door or window.

**To Construct – With Pike Poles**

**Step 1:** Open the salvage cover.

**Step 2:** Lay the cover flat at the desired location.

**Step 3:** Place pike poles at opposite edges of the salvage cover with the pike extending off the end of the cover (see Figure 35).



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Figure 35

**Step 4:** Roll the edges over the pike pole toward the middle until there is a 3-foot width between the rolls (see Figure 36),



Figure 36



**Step 5:** Turn the cover over, keeping the folds in place.

**Step 6:** Place the chute to collect and channel water. This can be done by hooking the pike poles over a ladder rung or similar object (see Figure 37).



Figure 37

**Step 7:** Extend the other end out a door or window.

## CATCHALLS

**Step 1:** Open the salvage cover.

**Step 2:** Lay the cover flat at the desired location.

**Step 3:** Roll the sides inward approximately 3 feet (see Figure 38).





Figure 38

**Step 4:** Lay the ends of the side rolls over at a 90-degree angle to form the corners of the basin (see Figure 39).



Figure 39



**Step 5:** Roll one end into a tight roll on top of the side roll and form a protected flap. **(Photo 40)**



**Figure 40**

**Step 6:** Lift the edge roll.

**Step 7:** Tuck the end roll to lock the corners.

**Step 8:** Roll the other end in a like manner.

**Step 9:** Lock the corners.



**Overhaul** - Overhaul consists of those operations involved in searching for and extinguishing hidden or remaining fires.

- Overhaul Task: Searching for and extinguishing hidden or remaining fire, placing the building and its contents in a safe condition, determining the cause of the fire, and recognizing and preserving evidence of arson.
- Overhaul does not start until authorized by the IC or fire cause investigator.
- Safety is always the first consideration. The most common and most dangerous threat to firefighters during overhaul are the toxic gasses that continue to be produced until all fire has been extinguished and the fire area thoroughly ventilated and allowed to cool. Wearing appropriate PPE, including respiratory protection, must be a routine part of the overhaul operation.
  - Locate and extinguish hidden fire
    - Step 1:** Confirm order with officer to overhaul.
    - Step 2:** Locate area(s) with potential hidden or smoldering fire.
    - Step 3:** Remove ceiling and wall covering and insulation beginning with area closest to hidden or smoldering fire.
    - Step 4:** Extinguish hidden and smoldering fires with small handline.
    - Step 5:** Report to officer completion of assigned task.
- To protect themselves during overhaul operations, firefighters must continue to maintain their situational awareness and their focus on safety. The following are some of the additional safety considerations during overhaul operations:
  - Continue to work in teams of two or more.
  - Maintain awareness of available exit routes.
  - Maintain a RIC throughout the operation.
  - Monitor personnel for the need for rehab.
  - Beware of hidden gas or electrical utilities.
  - Continue using the accountability system until the incident is terminated.

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## REFERENCE INFORMATION

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This heading includes information about the following:

- NFPA 1001 – Sections 5.3.14, 5.3.13, 5.5.1, 5.3.10
- Authored by Janet Probst