Unit 11 Objectives

1. Describe and demonstrate how to extinguish burning materials by chopping, scraping, and mixing them with soil and water.

2. Describe precautions to take when applying water to hot materials and demonstrate proper techniques for doing so.

3. Describe a systematic method of mopup and give two reasons for using this method.

Unit 11 Objectives

4. Describe how four of the senses aid in detecting burning materials.

5. Discuss the importance of breaking up and dispersing machine piles and berms adjacent to the control line.

6. Demonstrate the technique of cold trailing on a simulated fire perimeter.
Unit 11 Objectives

7. State three factors that determine the amount of additional work required for a water or retardant line.

8. Given a constructed control line, strengthen the line to facilitate holding by rearranging and fireproofing fuels adjacent to the line.

Dry Mopup
Boneyarding or Bone Piling

- Chunking and piling
- Spreading of heavy concentrations of materials near control line or inside burned area.
- Banked fuels
Dry Mopup
Turn Logs/Material

Wet Mopup

Nozzle Types
Straight stream
Spray
Fog
### Types of Class A Foam

<table>
<thead>
<tr>
<th>Foam Solution</th>
<th>Drainage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expansion 1:1</td>
<td>Rapid</td>
</tr>
<tr>
<td>A clear to milky fluid</td>
<td></td>
</tr>
<tr>
<td>— lacks bubble structure</td>
<td></td>
</tr>
<tr>
<td>— mostly water</td>
<td></td>
</tr>
<tr>
<td>Wet Foam</td>
<td></td>
</tr>
<tr>
<td>— Watery</td>
<td></td>
</tr>
<tr>
<td>— Large to small bubbles</td>
<td></td>
</tr>
<tr>
<td>— Lacks body</td>
<td></td>
</tr>
<tr>
<td>— Fast drain times</td>
<td></td>
</tr>
<tr>
<td>Fluid Foam</td>
<td></td>
</tr>
<tr>
<td>— Similar to watery shaving cream</td>
<td></td>
</tr>
<tr>
<td>— Medium to small bubbles</td>
<td></td>
</tr>
<tr>
<td>— Flows easily</td>
<td></td>
</tr>
<tr>
<td>— Moderate drain times</td>
<td></td>
</tr>
<tr>
<td>Dry Foam</td>
<td></td>
</tr>
<tr>
<td>— Similar to shaving cream</td>
<td></td>
</tr>
<tr>
<td>— Medium to small bubbles</td>
<td></td>
</tr>
<tr>
<td>— Mostly air</td>
<td></td>
</tr>
<tr>
<td>— Clings to vertical surfaces</td>
<td></td>
</tr>
<tr>
<td>— Slow drain times</td>
<td></td>
</tr>
</tbody>
</table>

### Safety Hazards

- Low-hanging limbs can spread fire across fireline
Systematic Mopup

- Work from hottest to coolest area.
- Plan a beginning and ending point.
- Work inward from control line.
- Examine entire assigned area.
- Obtain clear instructions.
- Use a grid system if necessary.

Four Senses

Sight

Four Senses

Touch
Four Senses
Smell

Four Senses
Hearing

Covered Fuels
Machine Piles

- Break up and disperse
- Hazards in machine piles include:
  - spring poles
  - unstable footing
  - hidden pockets
  - reduced recognition and visibility at night
  - falling berm and logs
  - fatigue
Covered Fuels
Ground

- Coal seams
- Peat
- Heavy duff layers in timber
- Natural fuel accumulations

Strengthening Control Line
Rearrange Fuel

Strengthening Control Line
Trenches
Strengthening Control Line
Waterbars

Review Unit 11 Objectives

1. Describe and demonstrate how to extinguish burning materials by chopping, scraping, and mixing them with soil and water.

2. Describe precautions to take when applying water to hot materials and demonstrate proper techniques for doing so.

3. Describe a systematic method of mop-up and give two reasons for using this method.

Review Unit 11 Objectives

4. Describe how one of the senses aid in detecting burning materials.

5. Discuss the importance of breaking up and dispersing machine piles and berms adjacent to the control line.

6. Demonstrate the technique of cold trailing on a simulated fire perimeter.
Review Unit 11 Objectives

7. State three factors that determine the amount of additional work required for a water or retardant line.

8. Given a constructed control line, strengthen the line to facilitate holding by rearranging and fireproofing fuels adjacent to the line.