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## UNIT 2: FIRE SAFETY AND UTILITY CONTROLS

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In this unit you will learn about:

- **Fire Chemistry:** How fire occurs, classes of fire, and choosing the correct means to extinguish each type of fire.
- **Fire and Utility Hazards:** Potential fire and utility hazards in the home and workplace, and fire prevention strategies
- **CERT Sizeup:** How to conduct the continual data-gathering and evaluation process at the scene of a disaster or emergency
- **Fire Sizeup Considerations:** How to evaluate fires, assess firefighting resources, and determine a course of action
- **Portable Fire Extinguishers:** Types of portable fire extinguishers and how to operate them
- **Fire Suppression Safety:** How to decide if you should attempt to extinguish a fire; how to approach and extinguish a fire safely
- **Hazardous Materials:** How to identify potentially dangerous materials in storage, in transit, and in your home

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**COMMUNITY EMERGENCY RESPONSE TEAM**  
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<b>OBJECTIVES</b>	<p>At the conclusion of this unit, the participants should be able to:</p> <ul style="list-style-type: none"><li>▪ Explain the role of CERTs in fire safety.</li><li>▪ Identify and reduce potential fire and utility risks in the home and workplace.</li><li>▪ Know the nine steps of the CERT sizeup process.</li><li>▪ Conduct a basic sizeup for a fire emergency.</li><li>▪ Operate a portable fire extinguisher correctly.</li><li>▪ Understand minimum safety precautions, including safety equipment, utility control, buddy system, and backup teams.</li><li>▪ Identify the locations of hazardous materials in the community and home and reduce the risk from hazardous materials in the home.</li><li>▪ Extinguish small fires using a fire extinguisher.</li></ul>
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<b>SCOPE</b>	<p>The topics that will be discussed in this unit are:</p> <ul style="list-style-type: none"><li>▪ Introduction and Unit Overview</li><li>▪ Fire Chemistry</li><li>▪ Fire and Utility Hazards</li><li>▪ CERT Sizeup</li><li>▪ Fire Sizeup Considerations</li><li>▪ Firefighting Resources</li><li>▪ Fire Suppression Safety</li><li>▪ Hazardous Materials</li><li>▪ Exercise: Suppressing Small Fires</li><li>▪ Unit Summary</li></ul>
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<b>ESTIMATED COMPLETION TIME</b>	2 hours 30 minutes
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**TRAINING  
METHODS**

As an introduction to fire safety, the instructor will describe fire chemistry and the classes of fire, emphasizing the importance of selecting the correct methods or agent for fire safety.

Then, the instructor will present an overview of hazards in the home and workplace, including electrical hazards, natural gas hazards, and flammable and combustible liquids, and lead a discussion of hazard mitigation and preparedness.

The instructor will then describe CERT strategies for assessing disaster or emergency situations using the continual, 9-step sizeup process. Participants will learn fire sizeup considerations and how to use the fire sizeup checklist when conducting a sizeup for a situation involving fire.

The next topic will be a discussion of firefighting resources, including portable fire extinguishers and creative resources such as pools, dirt or sand, and a garden hose. Emphasis will be placed on portable fire extinguishers because they will be the most common resource available to CERTs. Discussion of portable fire extinguishers will include types, extinguisher components, deciding to use a fire extinguisher, and correct extinguisher operation.

Fire suppression safety will be the next topic. The instructor will introduce the use of fire safety equipment and will place special emphasis on firefighter safety rules, including the 5-second rule, using the buddy system and a backup team, and techniques for fighting fires (e.g., confine the fire, stay low to the ground, identify a second exit route, etc.).

The instructor may choose to show a video at this point to reinforce the presentation on fire safety and fire extinguishers. (Video resources are included in the Equipment section below.)

Next, the instructor will lead an interactive discussion of hazardous materials, including where they are found, placarding, storage, and defensive strategies for hazardous materials accidents.

Finally, the unit will end with an exercise in which the participants will operate in teams of two and use a portable fire extinguisher to extinguish a gas fire.

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<b>RESOURCES REQUIRED</b>	<ul style="list-style-type: none"><li>▪ <i>Community Emergency Response Team Instructor Guide</i></li><li>▪ <i>Community Emergency Response Team Participant Manual</i></li><li>▪ PowerPoint Slides 2-0 through 2-32</li></ul>
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<b>OTHER RESOURCES</b>	<p>If time permits, the 18-minute video <i>Fire Safety: The CERT Member's Role</i> is recommended for this unit. The video provides information on how to size up the fire and select the right extinguisher, as well as how to use extinguishers correctly. The video is available for download at the national CERT Web site, <a href="http://www.citizencorps.gov/cert/">www.citizencorps.gov/cert/</a>.</p>
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<b>EQUIPMENT</b>	<p>In addition to the equipment listed at the front of this Instructor Guide, you will need the following equipment for this unit:</p> <ul style="list-style-type: none"><li>▪ A computer with PowerPoint software</li><li>▪ A computer projector and screen</li><li>▪ Samples of NFPA 704 Diamond and other hazardous materials placards, if possible</li><li>▪ One roll of cotton swabbing</li><li>▪ One Pyrex<sup>®</sup> jar with lid</li><li>▪ One box of wooden kitchen matches</li><li>▪ One water fire extinguisher</li><li>▪ One dry chemical fire extinguisher</li><li>▪ Portable Class A:B:C fire extinguishers (1 for every 5 participants)</li><li>▪ Fire Pan (see page 2-5)</li><li>▪ Road flares and a long pole</li></ul>
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**NOTES**

A suggested time plan for this unit is as follows:

Introduction and Unit Overview.....	10 minutes
Fire Chemistry .....	10 minutes
Fire and Utility Hazards .....	15 minutes
CERT Sizeup.....	5 minutes
Fire Sizeup Considerations.....	5 minutes
Firefighting Resources.....	20 minutes
Fire Suppression Safety .....	10 minutes
Hazardous Materials.....	10 minutes
Exercise: Suppressing Small Fires .....	60 minutes
Unit Summary.....	5 minutes

Total Time: 2 hours 30 minutes

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**REMARKS**

Most fire extinguisher service companies will provide Class A:B:C portable extinguishers for the final activity in this unit. Contact local companies for support.

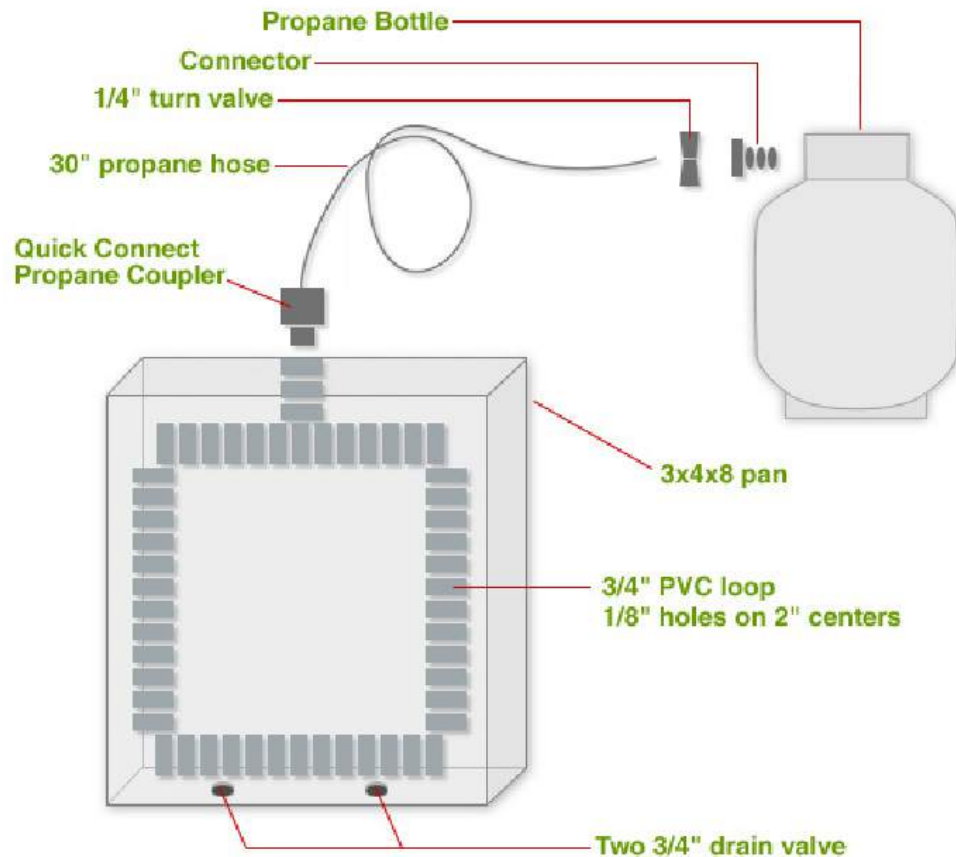
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REMARKS  
(CONTINUED)

*One method for setting up this exercise is shown below. Consult your local fire department for any additional assistance required in building and operating the fire pan. Check with your State fire marshal about guidelines for open burning.*




## Unit 2: Fire Safety and Utility Controls

INSTRUCTOR GUIDANCE	CONTENT
 <p><b>Display Slide 2-0</b></p>  <p>Correct response: Themselves.</p>  <p>Correct responses:</p> <ul style="list-style-type: none"><li>▪ Families</li><li>▪ Homes</li><li>▪ Neighborhoods</li></ul>	<p><b><i>Introduction and Unit Overview</i></b></p> <p><b>Welcome</b></p> <p>Introduce this unit by welcoming the participants to Unit 2 of the <i>CERT Basic Training</i>.</p> <p>Introduce any new instructors who will be assisting with this session.</p> <p>Briefly review Unit 1.</p> <p><b>Whom do CERT members take care of first?</b></p> <p><b>After that, whom do CERT members take care of?</b></p>

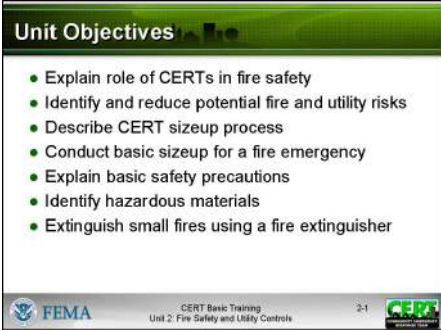


**COMMUNITY EMERGENCY RESPONSE TEAM**  
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INSTRUCTOR GUIDANCE	CONTENT
 <p>Correct responses:</p> <p>Damage to transportation, structures, communications, utilities, water service, fuel supply, financial services</p>	<p><b>How might a disaster impact a community's infrastructure?</b></p>
 <p>Discuss responses.</p>	<p><b>Did you look for potential structural and non-structural hazards?</b></p> <p><b>What did you find?</b></p>
 <p>Discuss.</p>	<p><b>How might you mitigate those hazards?</b></p>
 <p>This is a gentle reminder to participants that they should be doing these things.</p>	<p><b>Have you started to prepare a disaster supply kit?</b></p> <p><b>Have you started to work on a disaster plan?</b></p> <p>Introduce fire and utility safety by telling the participants that during and immediately following a severe emergency, the first priorities of professional fire services are life safety and extinguishing <i>major</i> fires.</p> <p>They may be hampered by impassable roads, weather conditions, inadequate water supply, and other inadequate resources.</p>

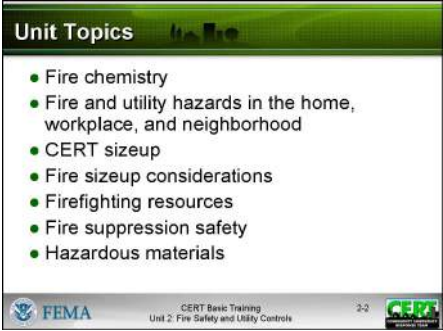
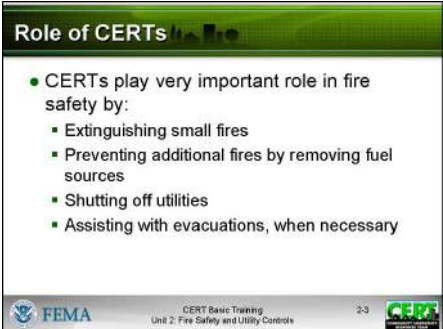
**COMMUNITY EMERGENCY RESPONSE TEAM**  
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INSTRUCTOR GUIDANCE	CONTENT
 <p><b>Unit Objectives</b></p> <ul style="list-style-type: none"><li>● Explain role of CERTs in fire safety</li><li>● Identify and reduce potential fire and utility risks</li><li>● Describe CERT sizeup process</li><li>● Conduct basic sizeup for a fire emergency</li><li>● Explain basic safety precautions</li><li>● Identify hazardous materials</li><li>● Extinguish small fires using a fire extinguisher</li></ul> <p>FEMA CERT Basic Training Unit 2: Fire Safety and Utility Controls 2-1</p> <p><b>Display Slide 2-1</b></p>	<p><b>Unit Objectives</b></p> <p>Tell the participants that at the end of this unit, they should be able to:</p> <ul style="list-style-type: none"><li>▪ Explain the role that CERTs play in fire safety.</li><li>▪ Identify and reduce potential fire and utility risks in the home and workplace.</li><li>▪ Describe the 9-step CERT sizeup process.</li><li>▪ Conduct a basic sizeup for a fire emergency</li><li>▪ Explain minimum safety precautions, including:<ul style="list-style-type: none"><li>• Safety equipment</li><li>• Utility control</li><li>• Buddy system</li><li>• Backup teams</li></ul></li><li>▪ Identify locations of hazardous materials in the community and the home and reduce the risk from hazardous materials in the home</li><li>▪ Extinguish small fires using a fire extinguisher</li></ul>

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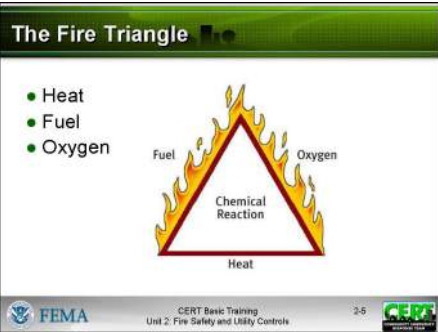
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INSTRUCTOR GUIDANCE	CONTENT
 <p><b>Unit Topics</b></p> <ul style="list-style-type: none"><li>• Fire chemistry</li><li>• Fire and utility hazards in the home, workplace, and neighborhood</li><li>• CERT sizeup</li><li>• Fire sizeup considerations</li><li>• Firefighting resources</li><li>• Fire suppression safety</li><li>• Hazardous materials</li></ul> <p>FEMA CERT Basic Training Unit 2: Fire Safety and Utility Controls 2-2</p> <p><b>Display Slide 2-2</b></p>  <p><b>Role of CERTs</b></p> <ul style="list-style-type: none"><li>• CERTs play very important role in fire safety by:<ul style="list-style-type: none"><li>▪ Extinguishing small fires</li><li>▪ Preventing additional fires by removing fuel sources</li><li>▪ Shutting off utilities</li><li>▪ Assisting with evacuations, when necessary</li></ul></li></ul> <p>FEMA CERT Basic Training Unit 2: Fire Safety and Utility Controls 2-3</p> <p><b>Display Slide 2-3</b></p>	<p><b>Unit Topics</b></p> <p>Preview the unit topics by telling the group that the unit will provide them with the knowledge and skills that they will need to reduce or eliminate fire hazards and extinguish small fires.</p> <p>The areas that they will learn about include:</p> <ul style="list-style-type: none"><li>▪ Fire chemistry</li><li>▪ Fire and utility hazards in the home, workplace, and neighborhood</li><li>▪ CERT sizeup</li><li>▪ Fire sizeup considerations</li><li>▪ Firefighting resources</li><li>▪ Fire suppression safety</li><li>▪ Hazardous materials</li></ul> <p>Tell the group that, at the end of the unit, they will have an opportunity to use a portable extinguisher to put out a fire.</p> <p><b>Role of CERTs</b></p> <p>Emphasize that CERTs play a very important role in fire and utility safety by:</p> <ul style="list-style-type: none"><li>▪ <u>Extinguishing small fires</u> before they become major fires<ul style="list-style-type: none"><li>• This unit will provide training on how to use an extinguisher to put out small fires and how to recognize when a fire is too big to handle. As a general rule, if you can't put out a fire in 5 seconds, it is already too big to handle and you should leave the premises immediately.</li></ul></li></ul>

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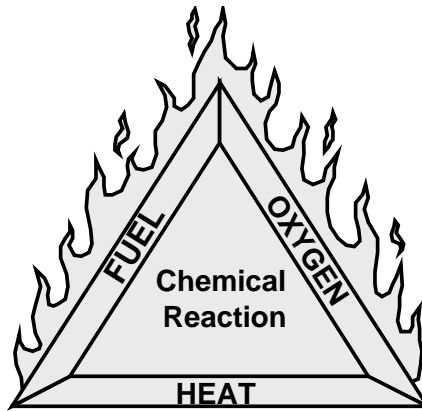
INSTRUCTOR GUIDANCE	CONTENT
<p>Although CERTs assist with evacuations, the procedures for conducting evacuations are not covered in this course. It is recommended that evacuation be covered in supplemental training.</p>  <p><b>Display Slide 2-4</b></p>	<ul style="list-style-type: none"> <li>▪ <u>Preventing additional fires by removing fuel sources</u> <ul style="list-style-type: none"> <li>• This unit will also describe how to ensure that a fire, once extinguished, is completely extinguished and stays extinguished. This process is called overhaul.</li> </ul> </li> <li>▪ <u>Shutting off utilities</u> when necessary and safe to do so           <ul style="list-style-type: none"> <li>• This unit will review utility shutoff procedures taught in Unit 1.</li> </ul> </li> <li>▪ <u>Assisting with evacuations</u> where necessary           <ul style="list-style-type: none"> <li>• When a fire is beyond the ability of CERTs to extinguish, CERT members need to protect lives by evacuating the area and establishing a perimeter.</li> </ul> </li> </ul> <p><b>CERT Priorities</b></p> <p>Stress the important role that CERTs play in neighborhood and workplace fire and utility safety. CERT members help in fire- and utility-related emergencies before professional responders arrive. When responding, CERT members should keep in mind the following CERT standards:</p> <ul style="list-style-type: none"> <li>▪ Rescuer safety is <u>always</u> the number one priority. Therefore, CERT members always:           <ul style="list-style-type: none"> <li>• Work with a buddy</li> <li>• Wear safety equipment (gloves, helmet, goggles, N95 mask, and sturdy shoes or boots)</li> </ul> </li> <li>▪ <b>The CERT goal is to do the greatest good for the greatest number.</b></li> </ul>

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INSTRUCTOR GUIDANCE	CONTENT
<p data-bbox="191 514 267 583"></p> <p data-bbox="191 653 626 982"></p> <p data-bbox="191 1020 444 1056"><b>Display Slide 2-5</b></p> <p data-bbox="191 1325 331 1360"><b>PM, P. 2-4</b></p>	<p data-bbox="659 415 922 451"><b><i>Fire Chemistry</i></b></p> <p data-bbox="659 510 1422 546"><b>Does anyone know what it takes for a fire to burn?</b></p> <p data-bbox="659 625 915 661"><b>The Fire Triangle</b></p> <p data-bbox="659 695 1390 766">If not mentioned by the participants, explain that fire requires three elements to exist:</p> <ul data-bbox="659 783 1458 1129" style="list-style-type: none"><li>▪ <b>Heat:</b> Heat is required to elevate the temperature of a material to its ignition point.</li><li>▪ <b>Fuel:</b> The fuel for a fire may be a solid, liquid, or gas. The type and quantity of the fuel will determine which method should be used to extinguish the fire.</li><li>▪ <b>Oxygen:</b> Most fires will burn vigorously in any atmosphere of at least 20 % oxygen. Without oxygen, most fuels could be heated until entirely vaporized, yet would not burn.</li></ul> <p data-bbox="659 1146 1390 1255">Explain that working together, these three elements, called the <i>fire triangle</i>, create a chemical exothermic reaction, which is fire.</p> <p data-bbox="659 1293 1414 1365">Refer the participants to the <i>Fire Triangle</i> figure in the Participant Manual.</p> <p data-bbox="659 1402 1458 1474">Stress that if <u>any</u> of these elements is missing or if any is taken away, fire will not occur or will extinguish.</p>

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<b>PM, P. 2-4</b>	<b>Fire Triangle</b>
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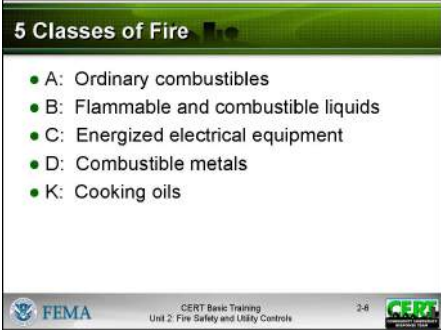



***Fire Triangle: Fuel, oxygen, and heat create a chemical reaction, which causes fire.***

INSTRUCTOR GUIDANCE	CONTENT
<p>Use the following steps to demonstrate the concept:</p> <ol style="list-style-type: none"> <li>1. Ignite a rolled-up piece of cotton, place it inside a Pyrex<sup>®</sup> jar, and cover it tightly.</li> <li>2. Wait until the flame goes out.</li> <li>3. Remove the material from the jar and blow on it to demonstrate that, unless the fire is completely out and overhauled, adding oxygen may complete the fire triangle and rekindle the fire.</li> </ol>	<p><b>Demonstrating the Fire Triangle</b></p> <p>Tell the group that you will now demonstrate the concept of the fire triangle by removing the oxygen from burning cotton.</p> <p>Emphasize the need to ensure that every piece of burning material is completely extinguished. Tell the participants to think of Smokey the Bear and campfires to remember this point.</p>



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INSTRUCTOR GUIDANCE	CONTENT
<div data-bbox="188 478 626 806"></div> <p data-bbox="188 842 444 877"><b>Display Slide 2-6</b></p> <p data-bbox="188 953 613 1136">Reemphasize the need to overhaul Class A fires (i.e., ensure that every piece of burning material is <u>completely</u> extinguished).</p> <div data-bbox="188 1423 266 1499"></div>	<p data-bbox="657 407 886 443"><b>Classes of Fire</b></p> <p data-bbox="657 478 1422 583">Tell the participants that, to aid in extinguishing fires, fires are categorized into classes based on the type of fuel that is burning:</p> <ul data-bbox="657 625 1463 1247" style="list-style-type: none"><li data-bbox="657 625 1463 695">▪ <u>Class A Fires</u>: Ordinary combustibles such as paper, cloth, wood, rubber, and many plastics</li><li data-bbox="657 730 1463 898">▪ <u>Class B Fires</u>: Flammable liquids (e.g., oils, gasoline) and combustible liquids (e.g., charcoal lighter fluid, kerosene). These fuels burn only at the surface because oxygen cannot penetrate the depth of the fluid. Only the vapor burns when ignited.</li><li data-bbox="657 940 1463 1037">▪ <u>Class C Fires</u>: Energized electrical equipment (e.g., wiring, motors). When the electricity is turned off, the fire becomes a Class A fire.</li><li data-bbox="657 1079 1463 1148">▪ <u>Class D Fires</u>: Combustible metals (e.g., aluminum, magnesium, titanium)</li><li data-bbox="657 1184 1463 1253">▪ <u>Class K Fires</u>: Cooking oils (e.g., vegetable oils, animal oils, fats)</li></ul> <p data-bbox="657 1283 1463 1388">Stress that it is <u>extremely</u> important to identify the type of fuel feeding the fire to select the correct method and agent for extinguishing the fire.</p> <p data-bbox="657 1430 1317 1499"><b>Does anyone have any questions about fire chemistry?</b></p>

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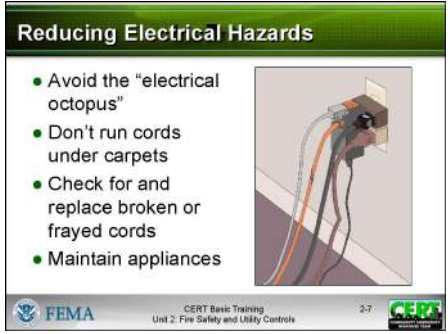
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INSTRUCTOR GUIDANCE	CONTENT
	<p data-bbox="657 415 1073 453"><b><i>Fire and Utility Hazards</i></b></p> <p data-bbox="657 506 1398 606">Explain that this section will deal with identifying and preventing fire and utility hazards in the home and workplace.</p> <p data-bbox="191 659 266 730"></p> <p data-bbox="657 646 1430 716"><b>What are potential fire and utility hazards in homes or workplaces?</b></p> <p data-bbox="657 785 1458 854">Allow the group time to respond. Provide suggestions of additional potential fire and utility hazards.</p> <p data-bbox="191 898 266 970"></p> <p data-bbox="657 894 1344 963"><b>What measures have you taken to mitigate or prevent the hazards?</b></p> <p data-bbox="657 1010 1409 1079">Use the participants' responses to make the following points:</p> <ul data-bbox="657 1094 1422 1373" style="list-style-type: none"><li>▪ Each of us has some type of fire or utility hazard in our home and workplace.</li><li>▪ Most of these hazards fall into three categories:<ul data-bbox="706 1234 1227 1373" style="list-style-type: none"><li>• Electrical hazards</li><li>• Natural gas hazards</li><li>• Flammable or combustible liquids</li></ul></li></ul> <p data-bbox="657 1430 1455 1612">Point out that homes and workplaces can and do have other hazards, including incompatible materials stored in close proximity to each other, such as flammables/combustibles, corrosives, compressed gases, and explosives.</p>



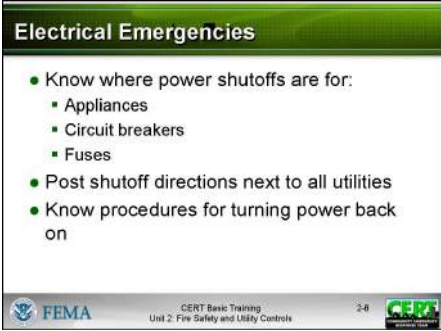
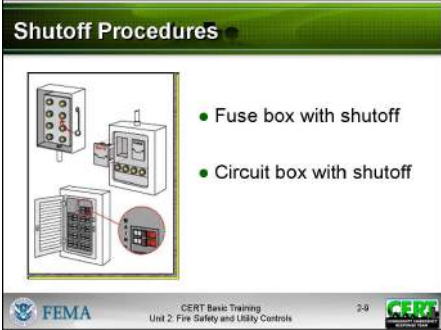
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INSTRUCTOR GUIDANCE	CONTENT
<p data-bbox="186 756 630 1087"></p> <p data-bbox="186 1123 446 1165"><b>Display Slide 2-7</b></p>	<p data-bbox="657 409 1404 472">Explain that simple fire prevention measures will help reduce the likelihood of fires:</p> <ul data-bbox="657 493 1404 619" style="list-style-type: none"><li>▪ First, <i>locate</i> potential sources of ignition.</li><li>▪ Then, do what you can to <i>reduce or eliminate</i> the hazards.</li></ul> <p data-bbox="657 724 933 766"><b>Electrical Hazards</b></p> <p data-bbox="657 798 1421 903">Provide the group with examples of common electrical hazards and simple ways that they can be reduced or eliminated:</p> <ul data-bbox="657 924 1421 1270" style="list-style-type: none"><li>▪ Avoid the “electrical octopus.” Eliminate tangles of electrical cords. Don’t overload electrical outlets. Don’t plug power strips into other power strips.</li><li>▪ Don’t run electrical cords under carpets.</li><li>▪ Check for and replace broken or frayed cords immediately.</li><li>▪ Maintain electrical appliances properly. Repair or replace malfunctioning appliances.</li></ul>

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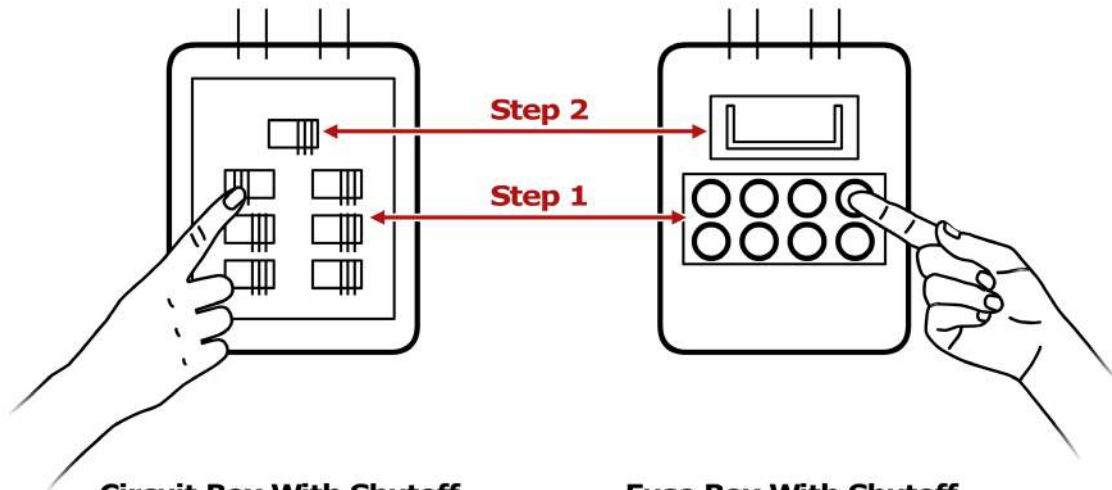
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INSTRUCTOR GUIDANCE	CONTENT
<div data-bbox="188 436 626 764"><p><b>Electrical Emergencies</b></p><ul style="list-style-type: none"><li>• Know where power shutoffs are for:<ul style="list-style-type: none"><li>▪ Appliances</li><li>▪ Circuit breakers</li><li>▪ Fuses</li></ul></li><li>• Post shutoff directions next to all utilities</li><li>• Know procedures for turning power back on</li></ul><p>FEMA CERT Basic Training Unit 2: Fire Safety and Utility Controls 2-8</p></div> <p><b>Display Slide 2-8</b></p> <p>Check with a representative from the local utility company regarding local utility protocols. Obtain or develop training models of fuse and breaker boxes to allow demonstrations and hands-on practice.</p> <p>Depending on your location, you may also choose to cover propane gas shutoffs.</p> <p><b>PM, P. 2-8</b></p> <div data-bbox="188 1423 626 1751"><p><b>Shutoff Procedures</b></p><ul style="list-style-type: none"><li>• Fuse box with shutoff</li><li>• Circuit box with shutoff</li></ul><p>FEMA CERT Basic Training Unit 2: Fire Safety and Utility Controls 2-9</p></div> <p><b>Display Slide 2-9</b></p>	<p><b>Responding to Electrical Emergencies</b></p> <p>Point out that electrical emergencies sometimes occur despite our best efforts. Every member of the household should be aware of the following procedures in the event of an electrical emergency:</p> <ul style="list-style-type: none"><li>▪ Locate the circuit breakers or fuses, and know how to shut off the power. Post shutoff instructions next to the breaker box or fuse box.</li><li>▪ Unscrew individual fuses or switch off smaller breakers first, then pull the main switch or breaker.</li><li>▪ When turning the power back on, turn on the main switch or breaker first, then screw in the fuses or switch on the smaller breakers, one at a time.</li></ul> <p>Stress that the participants should <u>not</u> enter a flooded basement or standing water to shut off the electrical supply because water conducts electricity.</p> <p>Refer the participants to the figures <i>Circuit Box and Fuse Box</i> in the Participant Manual.</p>

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PM, P. 2-8

Circuit Box and Fuse Box

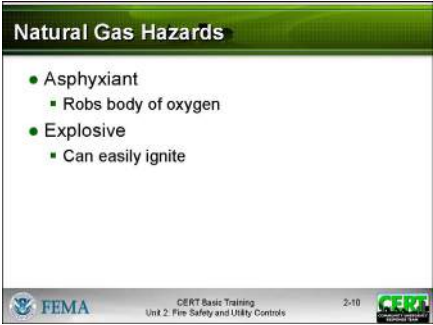
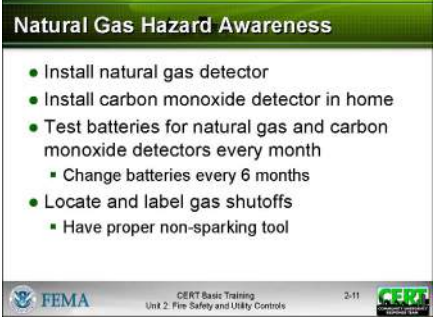


**Circuit Box With Shutoff**  
Circuit box showing shutoff steps.  
Step 1: Shut off individual breakers.  
Step 2: Shut off main breaker.

**Fuse Box With Shutoff**  
Fuse box showing shutoff steps.  
Step 1: Pull out individual fuses.  
Step 2: Pull out main fuse.

**COMMUNITY EMERGENCY RESPONSE TEAM**  
**UNIT 2: FIRE SAFETY AND UTILITY CONTROLS**

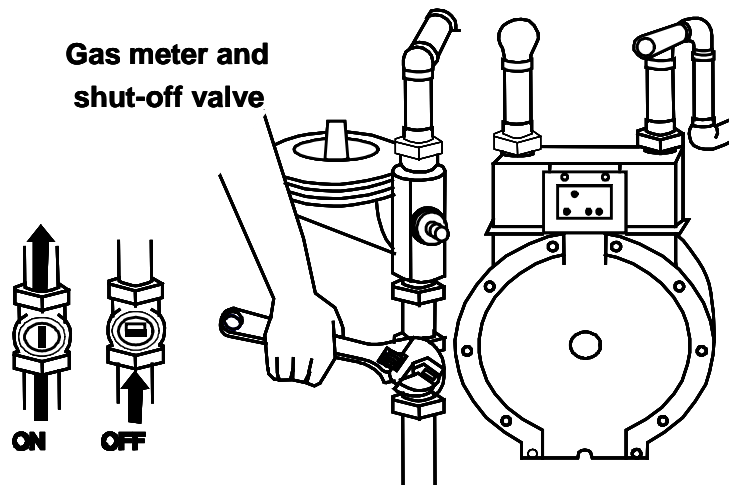
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INSTRUCTOR GUIDANCE	CONTENT
 <p><b>Natural Gas Hazards</b></p> <ul style="list-style-type: none"><li>● Asphyxiant<ul style="list-style-type: none"><li>▪ Robs body of oxygen</li></ul></li><li>● Explosive<ul style="list-style-type: none"><li>▪ Can easily ignite</li></ul></li></ul> <p>FEMA CERT Basic Training Unit 2: Fire Safety and Utility Controls 2-10</p>	<h3>Natural Gas Hazards</h3> <p>Explain that natural gas presents two types of hazards. It is an:</p> <ul style="list-style-type: none"><li>▪ <u>Asphyxiant</u> that robs the body of oxygen</li><li>▪ <u>Explosive</u> that can easily ignite</li></ul>
<p><b>Display Slide 2-10</b></p>	
 <p><b>Natural Gas Hazard Awareness</b></p> <ul style="list-style-type: none"><li>● Install natural gas detector</li><li>● Install carbon monoxide detector in home</li><li>● Test batteries for natural gas and carbon monoxide detectors every month<ul style="list-style-type: none"><li>▪ Change batteries every 6 months</li></ul></li><li>● Locate and label gas shutoffs<ul style="list-style-type: none"><li>▪ Have proper non-sparking tool</li></ul></li></ul> <p>FEMA CERT Basic Training Unit 2: Fire Safety and Utility Controls 2-11</p>	<h3>Natural Gas Hazard Awareness</h3> <p>Provide the participants with several examples for monitoring natural gas hazards:</p> <ul style="list-style-type: none"><li>▪ As with smoke alarms that need to be strategically placed in your home, e.g., on every level of the home and near all sleeping areas, install a natural gas detector near the furnace, hot water tank, and gas appliances such as clothes dryer or stove. Test the detector monthly to ensure that it works.</li><li>▪ Install a carbon monoxide detector near the sleeping area. Additional detectors may be installed on every level of the home and in every bedroom. Detectors should not be placed within 15 feet of heating or cooking appliances or in or near very humid areas such as bathrooms. Test the detector monthly to ensure that it works.</li><li>▪ Locate and label the gas shutoff valve(s). (There may be multiple valves inside a home in addition to the main shutoff.) Know how to shut off the gas and have the proper non-sparking tool for shutting off the gas.</li></ul>
<p><b>Display Slide 2-11</b></p>	
<p><b>PM, P. 2-10</b></p>	<p>Refer the participants to the figure <i>Natural Gas Meter with Shutoff</i> in the Participant Manual.</p>

COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 2: FIRE SAFETY AND UTILITY CONTROLS

PM, P. 2-10

Natural Gas Meter with Shutoff




The gas meter shutoff diagram indicates the shutoff valve location on the pipe that comes out of the ground. To turn off the valve, use a non-sparking wrench to turn the valve clockwise one-quarter turn. Remember that, in all cases, natural gas flow should only be turned on by a licensed technician.

Please note: Some gas meters have automatic shutoff valves that restrict the flow of gas during an earthquake or other emergency. These are installed by a licensed plumber, downstream of the utility point of delivery. If you are unsure whether your home has this shutoff device, contact your gas service company. If this shutoff device is closed, only a qualified professional should restore it.


**COMMUNITY EMERGENCY RESPONSE TEAM**  
**UNIT 2: FIRE SAFETY AND UTILITY CONTROLS**

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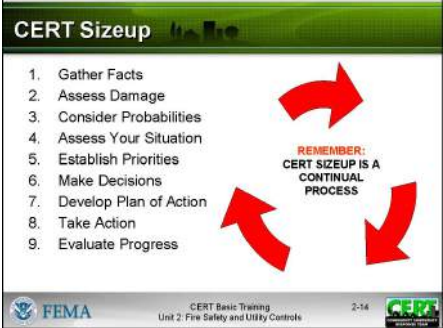
INSTRUCTOR GUIDANCE	CONTENT
<div data-bbox="188 415 626 741"></div> <p data-bbox="188 774 462 810"><b>Display Slide 2-12</b></p> <p data-bbox="188 848 621 1102">Consult with a local utility representative to determine protocols and, if possible, create a model gas meter to demonstrate and allow practice with the procedure for shutting off the gas.</p>	<p data-bbox="657 382 841 417"><b>Gas Shutoff</b></p> <p data-bbox="657 434 1040 470"><u>Gas meter inside the home</u></p> <p data-bbox="657 487 1440 779">Explain that if the gas meter is located inside the home, participants should only shut off the gas flow when instructed to by local authorities. Emphasize that if they smell gas or see the dials on the meter showing gas is flowing even though appliances are turned off, they should evacuate the premises and call 911. Tell them that they should not attempt to shut off the gas from inside the building if gas may be in the air.</p> <p data-bbox="657 795 1060 831"><u>Gas meter outside the home</u></p> <p data-bbox="657 848 1440 1064">Tell participants that they should turn off the meter from outside the building if they smell gas or see dials on the meter showing gas is flowing even though appliances are turned off. Stress that if there is a fire that they cannot extinguish, they should call 911 and turn off the gas only if it is safe to do so.</p> <p data-bbox="657 1081 1440 1264">Explain that if participants are unsure of the proper procedures, they should not attempt to turn the utilities on again by themselves, particularly in multiple-unit dwellings. They should always follow the local fire department's guidelines.</p> <p data-bbox="657 1302 1378 1373"><u>Stress that after the gas flow is turned off, it can be restored only by a trained technician.</u></p> <p data-bbox="657 1411 1440 1740">Note that some gas meters have automatic shutoff valves that restrict the flow of gas during an earthquake or other emergency. Explain that these should be installed by a licensed plumber, downstream of the utility point of delivery. Tell participants that if they are unsure whether their home has this shutoff device, they should contact their gas service company. Stress that if this shutoff device is closed, only a qualified professional should restore it.</p> <p data-bbox="657 1778 1440 1850">Warn the participants never to enter the basement of a structure that is on fire to turn off any utility.</p>

**COMMUNITY EMERGENCY RESPONSE TEAM**  
**UNIT 2: FIRE SAFETY AND UTILITY CONTROLS**

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INSTRUCTOR GUIDANCE	CONTENT
 <p><b>Display Slide 2-13</b></p> <p>L.I.E.S. stands for Limit, Isolate, Eliminate, Separate.</p> <p>Provide the group with information about safe disposal of hazardous materials in your area.</p>	<p>Explain that they should use a flashlight, not a candle, if an additional light source is needed to locate and shut off the gas valve.</p> <p><b>Flammable Liquid Hazards</b></p> <p>Provide several examples for reducing hazards from flammable liquids:</p> <ul style="list-style-type: none"><li>▪ Read labels to identify flammable products.</li><li>▪ Store them properly, using the L.I.E.S. method (Limit, Isolate, Eliminate, Separate).</li></ul> <p>Stress that participants should only extinguish a flammable liquid using a portable fire extinguisher rated for Class B fires.</p> <p>Tell the group that they should extinguish a flammable liquid using a portable fire extinguisher rated for that class of fire. Explain that ratings for portable extinguishers will be addressed later in this unit.</p>

**COMMUNITY EMERGENCY RESPONSE TEAM**  
**UNIT 2: FIRE SAFETY AND UTILITY CONTROLS**

INSTRUCTOR GUIDANCE	CONTENT
 <p><b>Display Slide 2-14</b></p> <p><b>PM, PP. 2-13 to 2-15</b></p> <p>Point out that, while sizeup is a fire department term, the process has been tailored for CERTs and will be used again in other areas of CERT responsibility.</p> <p>Provide several examples to illustrate the differences between fire department sizeup and CERT sizeup.</p>	<p><b><i>CERT Sizeup</i></b></p> <p>Introduce this topic by explaining to the group that sizeup is a continual process that enables professional responders to make decisions and respond appropriately in the areas of greatest need. CERT sizeup consists of 9 steps and should be used in any emergency situation.</p> <p>Refer the participants to <i>CERT Fire Sizeup</i> in the Participant Manual. Point out that, although the checklist is not exhaustive, it does include many of the questions that CERT members should ask when sizing up a fire situation.</p> <p>Explain that you will now discuss fire sizeup considerations and review the checklist with the group.</p> <p><b>CERT Sizeup Steps</b></p> <p>Explain that the 9 steps of CERT sizeup are:</p> <ol style="list-style-type: none"><li>1. <u>Gather facts</u>. What has happened? How many people appear to be involved? What is the current situation?</li><li>2. <u>Assess and communicate the damage</u>. Try to determine what has happened, what is happening now, and how bad things can really get.</li><li>3. <u>Consider probabilities</u>. What is likely to happen? What could happen through cascading events?</li><li>4. <u>Assess your own situation</u>. Are you in immediate danger? Have you been trained to handle the situation? Do you have the equipment that you need?</li><li>5. <u>Establish priorities</u>. Are lives at risk? Can you help? <u>Remember, life safety is the first priority!</u></li></ol>



**COMMUNITY EMERGENCY RESPONSE TEAM**  
**UNIT 2: FIRE SAFETY AND UTILITY CONTROLS**

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INSTRUCTOR GUIDANCE	CONTENT
	<ol style="list-style-type: none"><li data-bbox="659 401 1393 506">6. <u>Make decisions</u>. Base your decisions on the answers to Steps 1 through 5 and in accordance with the priorities that you established.</li><li data-bbox="659 527 1406 663">7. <u>Develop a plan of action</u>. Develop a plan that will help you accomplish your priorities. Simple plans may be verbal, but more complex plans should always be written.</li><li data-bbox="659 684 1398 789">8. <u>Take action</u>. Execute your plan, documenting deviations and status changes so that you can report the situation accurately to first responders.</li><li data-bbox="659 810 1438 989">9. <u>Evaluate progress</u>. At intervals, evaluate your progress in accomplishing the objectives in the plan of action to determine what is working and what changes you may have to make to stabilize the situation.</li></ol>

**COMMUNITY EMERGENCY RESPONSE TEAM**  
**UNIT 2: FIRE SAFETY AND UTILITY CONTROLS**

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<b>PM, PP. 2-13 TO 2-15</b>	<b>CERT Fire Sizeup</b>
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	Yes	No
<b>Step 1: Gather Facts</b>		
<i>Time</i>		
<ul style="list-style-type: none"> <li>▪ Does the time of day or week affect fire suppression efforts? How?</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Weather</i>		
<ul style="list-style-type: none"> <li>▪ Are there weather conditions that affect your safety? If yes, how will your safety be affected?</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> <li>▪ Will weather conditions affect the fire situation? If yes, how will the fire situation be affected?</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Type of Construction</i>		
<ul style="list-style-type: none"> <li>▪ What type(s) of structure(s) are involved?</li> </ul>		
<ul style="list-style-type: none"> <li>▪ What type(s) of construction are involved?</li> </ul>		
<i>Occupancy</i>		
<ul style="list-style-type: none"> <li>▪ Are the structures occupied? If yes, how many people are likely to be affected?</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> <li>▪ Are there special considerations (e.g., children, elderly, pets, people with disabilities)?</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>

**COMMUNITY EMERGENCY RESPONSE TEAM**  
**UNIT 2: FIRE SAFETY AND UTILITY CONTROLS**

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	Yes	No
<i>Hazards</i>		
<ul style="list-style-type: none"> <li>▪ Are hazardous materials evident?</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> <li>▪ Are any other types of hazards present? If yes, what other hazards?</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Step 2: Assess and Communicate the Damage</b>		
<ul style="list-style-type: none"> <li>▪ Survey all sides of the building. Is the danger beyond the CERT's capability?</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> <li>▪ Have the facts and the initial damage assessment been communicated to the appropriate person(s)?</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Step 3: Consider Probabilities</b>		
<i>Life Hazards</i>		
<ul style="list-style-type: none"> <li>▪ Are there potentially life-threatening hazards? If yes, what are the hazards?</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Path of Fire</i>		
<ul style="list-style-type: none"> <li>▪ Does the fire's path jeopardize other areas? If yes, what other areas may be jeopardized?</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Additional Damage</i>		
<ul style="list-style-type: none"> <li>▪ Is there a high potential for more disaster activity that will impact personal safety? If yes, what are the known risks?</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>


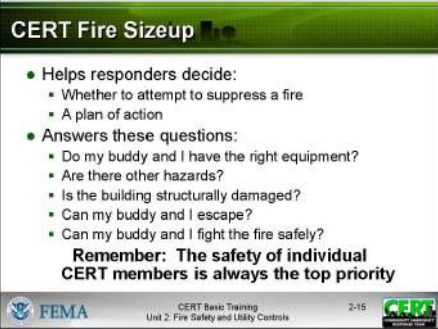
**COMMUNITY EMERGENCY RESPONSE TEAM**  
**UNIT 2: FIRE SAFETY AND UTILITY CONTROLS**

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	Yes	No
<b>Step 4: Assess Your Own Situation</b>		
<ul style="list-style-type: none"> <li>▪ What equipment is available to help suppress the fire?</li> </ul>		
<ul style="list-style-type: none"> <li>▪ What other resources are available?</li> </ul>		
<ul style="list-style-type: none"> <li>▪ Can fire suppression be <i>safely</i> attempted by CERT members?  <u>If not, do <i>not</i> attempt suppression.</u></li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Step 5: Establish Priorities</b>		
<ul style="list-style-type: none"> <li>▪ Are there other, more pressing needs at the moment?  If yes, list.</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Step 6: Make Decisions</b>		
<ul style="list-style-type: none"> <li>▪ Where will resources do the most good while maintaining an adequate margin of safety?</li> </ul>		
<b>Step 7: Develop a Plan of Action</b>		
<ul style="list-style-type: none"> <li>▪ Determine how personnel and other resources should be used.</li> </ul>		
<b>Step 8: Take Action</b>		
<ul style="list-style-type: none"> <li>▪ Put the plan into effect.</li> </ul>		
<b>Step 9: Evaluate Progress</b>		
<ul style="list-style-type: none"> <li>▪ Continually size up the situation to identify changes in the: <ul style="list-style-type: none"> <li>• Scope of the problem</li> <li>• Safety risks</li> <li>• Resource availability</li> </ul> </li> </ul>		
<ul style="list-style-type: none"> <li>▪ Adjust strategies as required.</li> </ul>		

**COMMUNITY EMERGENCY RESPONSE TEAM**  
**UNIT 2: FIRE SAFETY AND UTILITY CONTROLS**

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INSTRUCTOR GUIDANCE	CONTENT
  <p><b>Display Slide 2-15</b></p>	<p>Emphasize that sizeup is a continuous process.</p> <p>Evaluation of progress — Step 9 — may require you to go back and gather more facts.</p> <p><b>Does anyone have any questions about CERT fire sizeup?</b></p> <p><b><i>Fire Sizeup Considerations</i></b></p> <p>Explain that a sizeup of a situation involving a fire will dictate whether to attempt fire suppression and will help you plan for extinguishing the fire.</p> <p>Point out that CERT sizeup is a continual 9-step process that enables one to make decisions and respond appropriately in the areas of greatest need.</p> <p>Emphasize that the safety of individual CERT members is always the top priority. Say that effective fire sizeup will allow participants to answer all of the following questions:</p> <ul style="list-style-type: none"><li>▪ Do my buddy and I have the right equipment?</li><li>▪ Are there other hazards?</li><li>▪ Is the building structurally damaged?</li><li>▪ Can my buddy and I escape?</li><li>▪ Can my buddy and I fight the fire safely?</li></ul> <p>Remind participants that the safety of individual CERT members is always the top priority.</p>

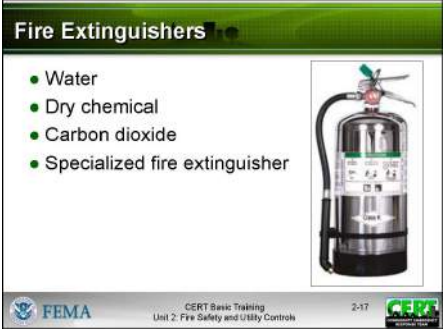
**COMMUNITY EMERGENCY RESPONSE TEAM  
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INSTRUCTOR GUIDANCE	CONTENT
  <p><b>Display Slide 2-16</b></p>	<p><b><i>Firefighting Resources</i></b></p> <p><b>What comes to mind when you think about firefighting resources?</b></p> <p>If not mentioned, tell the group that the most common firefighting resources are:</p> <ul style="list-style-type: none"><li>▪ Portable fire extinguishers</li><li>▪ Interior wet standpipes</li></ul> <p>Other resources include confinement and “creative resources.”</p> <p><b>Fire Extinguishers</b></p> <p>Remind the participants that portable fire extinguishers are invaluable for putting out small fires. A well-prepared home or workplace will have at least two portable fire extinguishers of the appropriate type for the location.</p> <p>Emphasize that the type of fuel that is burning will determine which resources to select to fight a fire.</p> <p>Because portable fire extinguishers are most common, this section will focus on them.</p>











**COMMUNITY EMERGENCY RESPONSE TEAM**  
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INSTRUCTOR GUIDANCE	CONTENT
 <p><b>Display Slide 2-17</b></p> <p><b>PM, P. 2-18</b></p>	<p><b>Types of Fire Extinguishers</b></p> <p>Tell the group that there are four types of extinguishers:</p> <ul style="list-style-type: none"><li>▪ Water</li><li>▪ Dry chemical</li><li>▪ Carbon dioxide</li><li>▪ Specialized fire extinguishers</li></ul> <p>Explain that the next section will briefly describe the characteristics of each type of fire extinguisher. Refer the participants to the <i>Fire Types, Extinguishing Agents, and Methods</i> chart in the Participant Manual for an overview of this information.</p> <p>Review the types of fires and extinguishing methods with the group.</p>

**COMMUNITY EMERGENCY RESPONSE TEAM**  
**UNIT 2: FIRE SAFETY AND UTILITY CONTROLS**

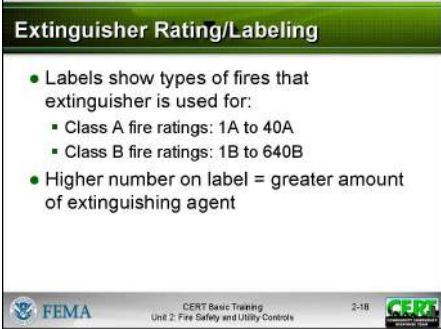
<b>PM, P. 2-17</b>	<b>Fire Types, Extinguishing Agents, and Methods</b>
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<b>FIRE TYPE</b>	<b>EXTINGUISHING AGENT</b>	<b>EXTINGUISHING METHOD</b>
<b>Ordinary Solid Materials</b>   	Water <hr/> Foam <hr/> Dry chemical	Removes heat <hr/> Removes air and heat <hr/> Breaks chain reaction
<b>Flammable Liquids</b>   	Foam CO <sub>2</sub> <hr/> Dry chemical	Removes air <hr/> Breaks chain reaction
<b>Electrical Equipment</b>   	CO <sub>2</sub> <hr/> Dry chemical	Removes air <hr/> Breaks chain reaction
<b>Combustible Metals</b>   	Special agents	Usually remove air
<b>Kitchen Oils</b>   	Chemical	Usually removes air




**COMMUNITY EMERGENCY RESPONSE TEAM**  
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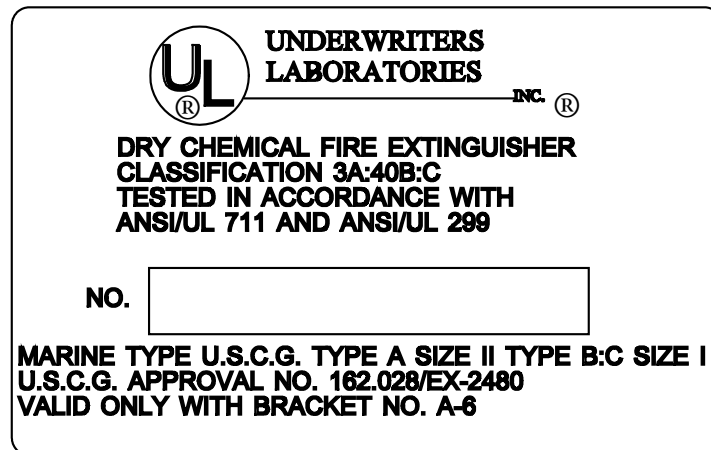
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INSTRUCTOR GUIDANCE	CONTENT
<div data-bbox="188 415 626 741"><p><b>Extinguisher Rating/Labeling</b></p><ul style="list-style-type: none"><li>● Labels show types of fires that extinguisher is used for:<ul style="list-style-type: none"><li>▪ Class A fire ratings: 1A to 40A</li><li>▪ Class B fire ratings: 1B to 640B</li></ul></li><li>● Higher number on label = greater amount of extinguishing agent</li></ul><p>FEMA CERT Basic Training Unit 2: Fire Safety and Utility Controls 2-18</p></div> <p data-bbox="188 772 462 810"><b>Display Slide 2-18</b></p>	<p data-bbox="657 380 1166 417"><b>Extinguisher Rating and Labeling</b></p> <p data-bbox="657 453 1425 703">Tell the group that portable fire extinguishers must be rated and approved by the State fire marshal and Underwriters Laboratories (an organization that sets safety standards for manufactured goods). They are rated according to their effectiveness on the different classes of fire. Their strength and capability must also be labeled by the manufacturer.</p> <p data-bbox="657 743 1404 852">Explain that the label contains vital information about the type(s) of fire for which the extinguisher is appropriate.</p> <p data-bbox="657 892 1382 1001">Extinguishers that are appropriate for Class A fires have a rating from 1A to 40A, with a higher number indicating a higher volume of extinguishing agent.</p> <p data-bbox="657 1041 1372 1108">Extinguishers that are appropriate for Class B fires have a rating from 1B to 640B.</p> <p data-bbox="657 1148 1409 1215">No number accompanies an extinguisher rated Class C, D, or K.</p> <p data-bbox="657 1255 1419 1323">The C on the label indicates only that the extinguisher is safe to use on electrical fires.</p> <p data-bbox="657 1362 1424 1545">Extinguishers for Class D fires must match the type of metal that is burning and are labeled with a list detailing the metals that match the unit's extinguishing agent. These extinguishers also do not use numerical ratings.</p> <p data-bbox="657 1585 1417 1801">Extinguishers for Class K fires are designed to supplement fire suppression systems in commercial kitchens. They spray an alkaline mixture that, when combined with the fatty acid of the burning cooking oil or fat, creates soapy foam to hold in the vapors and extinguish the fire.</p>

**COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 2: FIRE SAFETY AND UTILITY CONTROLS**

INSTRUCTOR GUIDANCE	CONTENT
<p><b>Examples of Labels</b></p>  <p><b>Display Slide 2-19</b></p> <p><b>PM, P. 2-20</b></p>	<p>Describe some of the different types of fire extinguisher labels that participants might encounter.</p> <p>Refer the participants to the <i>Manufacturer's Label</i> illustration in the Participant Manual.</p>

<b>PM, P. 2-20</b>	<b>Manufacturer's Label Illustration</b>
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Sample manufacturer's label for a fire extinguisher, showing the Underwriters Laboratories symbol at the top, the type and classification of fire extinguisher, testing procedures used, and serial number. At the bottom of the label is marine information, including the U.S. Coast Guard approval number.

**COMMUNITY EMERGENCY RESPONSE TEAM**  
**UNIT 2: FIRE SAFETY AND UTILITY CONTROLS**

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INSTRUCTOR GUIDANCE	CONTENT
Display a water extinguisher.	<p>Review the types of fires and appropriate extinguishing methods with the group, noting the capacity, range, and pressure of each type of extinguisher.</p> <p><b>Water Extinguishers</b></p> <p>Tell the group that common characteristics of water extinguishers include:</p> <ul style="list-style-type: none"><li>▪ <u>Capacity</u>. Standard size is 2.5 gallons.</li><li>▪ <u>Range</u>. Standard range is 30-40 feet.</li><li>▪ <u>Pressure</u>. Standard pressure is 110 pounds per square inch (psi).</li></ul> <p>Warn the group to use extreme caution when using a water extinguisher to ensure that the water, which is under pressure, does not scatter lightweight materials and spread the fire.</p>
Display a chemical extinguisher.	<p><b>Chemical Extinguishers</b></p> <p>Tell the participants that <u>dry chemical extinguishers</u> are most common.</p> <ul style="list-style-type: none"><li>▪ Dry chemical extinguishers have a sodium bicarbonate base and are effective on Class B and C fires.</li><li>▪ Multipurpose dry chemical extinguishers have a monoammonium phosphate base and are effective for Class A, B, and C fires.</li></ul>

**COMMUNITY EMERGENCY RESPONSE TEAM**  
**UNIT 2: FIRE SAFETY AND UTILITY CONTROLS**

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INSTRUCTOR GUIDANCE	CONTENT
<p>If discussing or demonstrating how to use a carbon dioxide extinguisher indoors, note the need for caution, as these extinguishers remove oxygen from the room.</p> <p><b>PM, P 2-23</b></p>	<p>Common characteristics of dry chemical extinguishers include:</p> <ul style="list-style-type: none"><li>▪ <u>Capacity</u>. Approximately 10-20 seconds discharge time</li><li>▪ <u>Range</u>. Standard range is 8-12 feet.</li><li>▪ <u>Pressure</u>. Standard pressure is 175-250 psi.</li></ul> <p>Explain that, while still in use, <u>carbon dioxide</u> and <u>other specialized extinguishers</u> are becoming less common.</p> <p><b>Deciding to Use a Fire Extinguisher</b></p> <p>Tell the participants that there is a series of questions that they should ask themselves before attempting to fight a fire with a fire extinguisher.</p> <p>Refer the group to the chart titled <i>Deciding to Use a Fire Extinguisher</i> in the Participant Manual, and review the questions and decisions with the group:</p> <ul style="list-style-type: none"><li>▪ Are there two ways to exit the area quickly and safely if I attempt to extinguish the fire? (The first priority for you and your buddy is safety.)</li><li>▪ Do I have the right type of extinguisher for the type of fire?</li><li>▪ Is the extinguisher large enough for the fire?</li><li>▪ Is the area free from other dangers, such as hazardous materials and falling debris?</li></ul> <p>Stress that if the participants answer “NO” to <u>any</u> of these questions, or if they have been unable to put out the fire in 5 seconds using the extinguisher, they should:</p> <ul style="list-style-type: none"><li>▪ Leave the building immediately.</li><li>▪ Shut all doors as they leave to slow the spread of the fire.</li></ul>

**COMMUNITY EMERGENCY RESPONSE TEAM**  
**UNIT 2: FIRE SAFETY AND UTILITY CONTROLS**

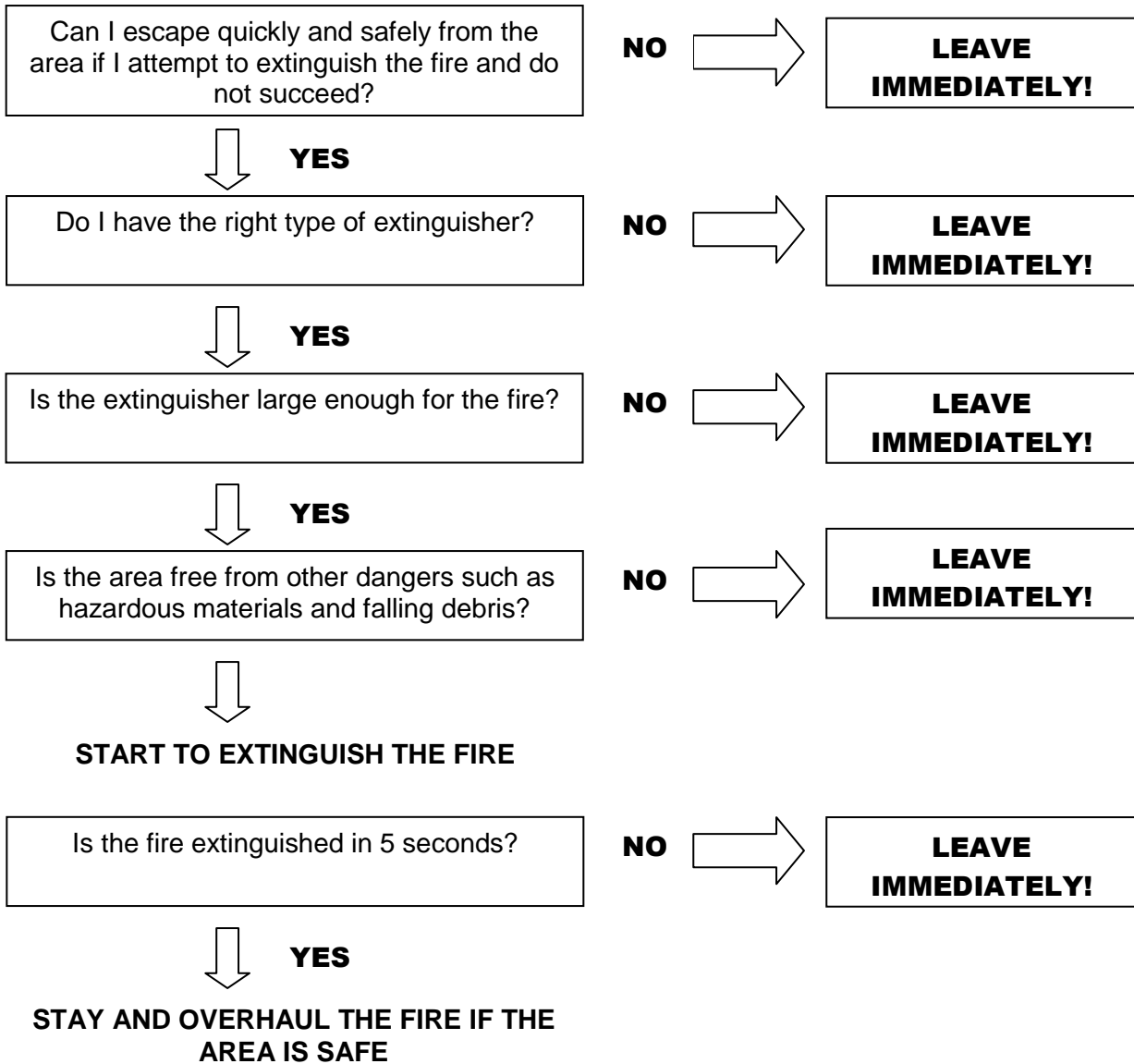
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INSTRUCTOR GUIDANCE	CONTENT
	<p>Tell the participants that if they answer “YES” to <u>all</u> of these questions, they may attempt to extinguish the fire. Emphasize that, even if they answer “YES” to all of the questions but feel unable to extinguish the fire, they should leave immediately. Reemphasize the 5-second rule.</p> <p><b>Overhauling the Fire</b></p> <p>Explain that, if the fire is extinguished in 5 seconds and the area is safe, CERT members should stay and overhaul the fire. Overhauling is the process of searching a fire scene for hidden fire or sparks in an effort to prevent the fire from rekindling. Tell the participants how to overhaul a fire by remembering “cool, soak, and separate.”</p>

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<b>PM, P. 2-23</b>	<b>Deciding to Use a Fire Extinguisher</b>
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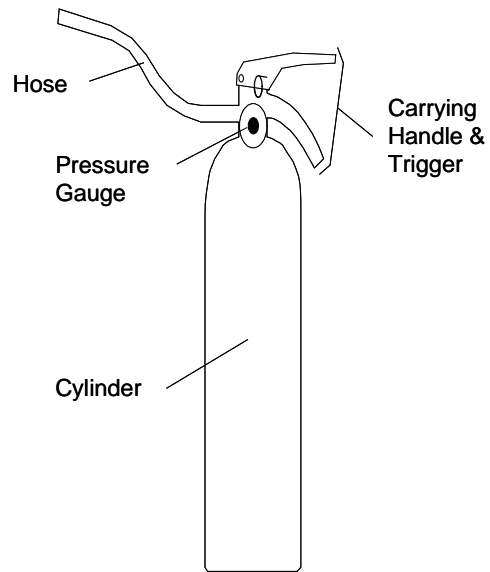
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INSTRUCTOR GUIDANCE	CONTENT
    Demonstrate how to use a portable extinguisher.  <b>PM, P. 2-24</b>	<p><b>Does anyone have any questions about how to use the decision-making flowchart?</b></p> <p><b>Operating a Fire Extinguisher</b></p> <p><b>How many of you have operated a portable fire extinguisher?</b></p> <p>After a show of hands, ask a few participants to share their results. Use their comments to elaborate on the topic.</p> <p>Explain that you will demonstrate how to use a portable fire extinguisher.</p> <p>Refer the participants to the diagram titled <i>Components of a Portable Fire Extinguisher</i> in the Participant Manual. Explain that a portable fire extinguisher includes four components:</p> <ul style="list-style-type: none"><li>▪ A pressure gauge</li><li>▪ A hose</li><li>▪ A cylinder</li><li>▪ A carrying handle with trigger</li></ul> <p>Tell the group that they should always operate portable fire extinguishers in an upright position.</p>

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<b>PM, P. 2-24</b>	<b>Components of a Portable Fire Extinguisher</b>
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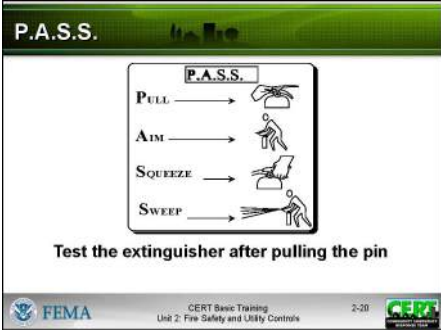



**Components of a portable fire extinguisher: Hose, carrying handle and trigger, pressure gauge, cylinder**



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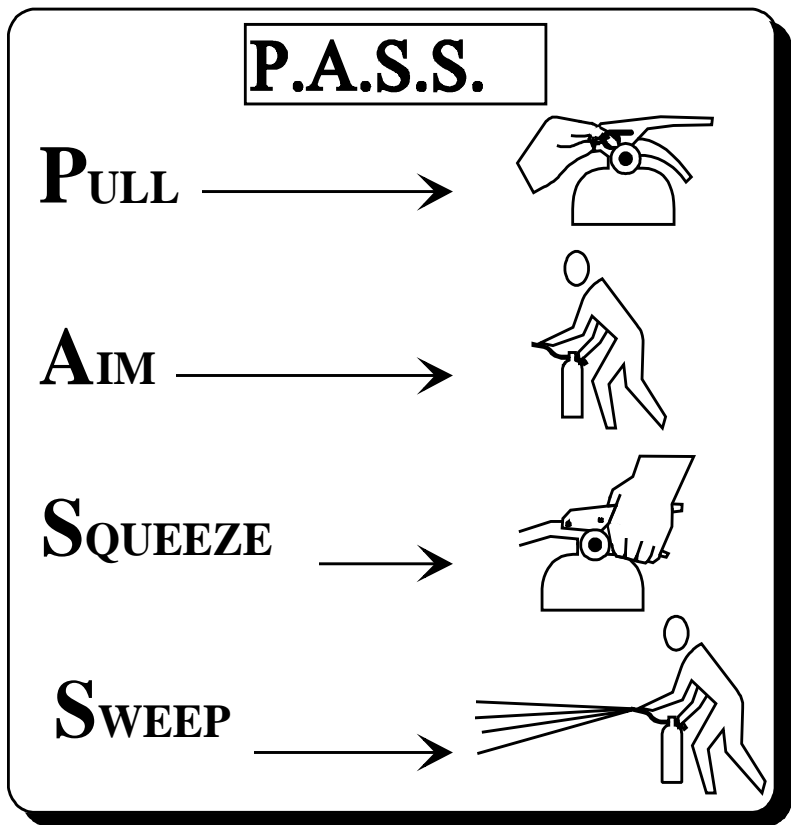
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INSTRUCTOR GUIDANCE	CONTENT
<div data-bbox="188 476 626 804"><p>P.A.S.S.</p><p>PULL → [Illustration of pulling the pin]</p><p>AIM → [Illustration of aiming the nozzle]</p><p>SQUEEZE → [Illustration of squeezing the handle]</p><p>SWEEP → [Illustration of sweeping the nozzle]</p><p>Test the extinguisher after pulling the pin</p><p>FEMA CERT Basic Training Unit 2: Fire Safety and Utility Controls 2-20</p></div> <p><b>Display Slide 2-20</b></p> <p>Demonstrate P.A.S.S.</p> <p><b>PM, P. 2-25</b></p> <div data-bbox="188 1430 266 1499"></div>	<p><b>P.A.S.S.</b></p> <p>Explain that the acronym for operating a fire extinguisher is P.A.S.S.:</p> <ul style="list-style-type: none"><li>▪ <u>P</u>ull (Test the extinguisher after pulling the pin)</li><li>▪ <u>A</u>im</li><li>▪ <u>S</u>queeze</li><li>▪ <u>S</u>weep</li></ul> <p>To ensure that the extinguisher is working properly, test it before approaching any fire.</p> <p>Refer the participants to the <i>PASS</i> diagram in the Participant Manual.</p> <p>Emphasize the need to <u>aim at the base</u> of the fire. Explain that each participant will have the opportunity to practice this technique near the end of the session.</p> <p>Explain that, once used, fire extinguishers that have been completely depleted should be laid down and stored on their side so no attempt will be made to use them until recharged.</p> <p><b>Does anyone have any questions about portable fire extinguishers or their operation?</b></p>

COMMUNITY EMERGENCY RESPONSE TEAM  
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PM, P. 2-25	P.A.S.S
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**COMMUNITY EMERGENCY RESPONSE TEAM**  
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INSTRUCTOR GUIDANCE	CONTENT
<p data-bbox="191 451 451 483"><b>Interior Wet Standpipes</b></p> <ul data-bbox="212 506 370 695" style="list-style-type: none"><li>● Usually in commercial buildings or apartments</li><li>● Work in two-person teams when using wet standpipes</li></ul>  <p data-bbox="191 730 626 762">FEMA CERT Basic Training Unit 2: Fire Safety and Utility Controls 2-21</p> <p data-bbox="191 800 459 831"><b>Display Slide 2-21</b></p>	<p data-bbox="659 405 1016 436"><b>Interior Wet Standpipes</b></p> <p data-bbox="659 478 1438 653">Explain that interior wet standpipes are usually in commercial and apartment buildings and consist of 100 feet of 1.5-inch jacketed hose with an adjustable spray nozzle. They deliver up to 125 gallons of water per minute.</p> <p data-bbox="659 695 1425 768">Caution the group always to work in two-person teams when using an interior wet standpipe.</p> <p data-bbox="659 810 1433 947"><b>Team Member 1:</b> Removes the hose from the cabinet and makes sure that hose is free of kinks and bends in the line. When ready, gives the go-ahead to Team Member 2 to open the water valve.</p> <p data-bbox="659 989 1430 1094"><b>Team Member 2:</b> After Team Member 1 gives the go-ahead, opens the water valve. Team Member 2 will then back up Team Member 1 at the nozzle.</p> <p data-bbox="659 1136 1430 1241">Explain that, due to the dryness of the hose fabric, water may seep through the hose fabric until the hose is saturated. This may last for approximately 1 minute.</p> <p data-bbox="659 1283 854 1314"><b>Confinement</b></p> <p data-bbox="659 1356 1433 1461">In interior spaces, it is possible to <i>confine</i> a fire and restrict the spread of smoke and heat by closing doors, interior and exterior.</p>

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INSTRUCTOR GUIDANCE	CONTENT
<p data-bbox="191 436 266 508"></p> <p data-bbox="191 548 548 611">If not mentioned, suggest these:</p> <ul data-bbox="191 636 581 810" style="list-style-type: none"><li>▪ Swimming pool or spa water and buckets</li><li>▪ Sand or dirt and shovels</li><li>▪ A garden hose</li></ul> <div data-bbox="191 898 626 1224"><p data-bbox="191 1262 461 1293"><b>Display Slide 2-22</b></p><p data-bbox="191 1367 407 1398"><b>PM, P. 2-27-28</b></p></div>	<p data-bbox="659 405 1049 436"><b>Other Creative Resources</b></p> <p data-bbox="659 476 1373 543"><b>What other resources might be handy to fight a fire?</b></p> <p data-bbox="659 877 1084 915"><b><i>Fire Suppression Safety</i></b></p> <p data-bbox="659 968 1430 1220">Introduce this topic by reminding the participants that, as CERT members, small fire suppression may be one of their roles. Emphasize, however, that — even following a disaster — their personal safety must always be their number one concern. Stress that they will be unable to help anyone if they are injured through careless sizeup or unsafe acts.</p> <p data-bbox="659 1335 1406 1402">Refer the group to the list of <i>Fire Suppression Safety Rules</i> in the Participant Manual.</p> <p data-bbox="659 1461 915 1493"><b>Fire Safety Rules</b></p> <p data-bbox="659 1514 1409 1581">Stress the importance of following <u>all</u> fire suppression safety rules.</p> <ul data-bbox="659 1602 1398 1745" style="list-style-type: none"><li>▪ <u>Use safety equipment</u> at all times. Wear your helmet, goggles, dust mask, leather gloves, and sturdy shoes or boots. If you are not equipped to protect your personal safety, <u>leave the building</u>.</li></ul>

**COMMUNITY EMERGENCY RESPONSE TEAM**  
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INSTRUCTOR GUIDANCE	CONTENT
	<ul style="list-style-type: none"><li>▪ <u>Work with a buddy.</u> Buddies serve an important purpose. They protect your safety. Don't ever try to fight a fire alone.</li><li>▪ <u>Have a backup team, whenever possible.</u> A backup team just makes good sense. A backup team can support your fire suppression efforts and can provide help if you need it.</li><li>▪ <u>Always have two ways to exit the fire area.</u> Fires spread much faster than you might think. Always have a backup escape plan in case your main escape route becomes blocked.</li><li>▪ <u>Look at the door.</u> If air is being sucked under the door or smoke is coming out the top of the door, do <u>not</u> touch the door.</li><li>▪ <u>Feel closed doors with the back of the hand,</u> working from the bottom of the door up. Do <u>not</u> touch the door handle before feeling the door. If the door is hot, there is fire behind it. Do not enter! Opening the door will feed additional oxygen to the fire.</li><li>▪ <u>Confine the fire,</u> whenever possible, by closing doors and keeping them closed.</li><li>▪ <u>Stay low to the ground.</u> Smoke will naturally rise. Keeping low to the ground will provide you with fresher air to breathe.</li><li>▪ <u>Maintain a safe distance.</u> Remember the effective range of your fire extinguisher. Don't get closer than necessary to extinguish the fire.</li><li>▪ <u>Never turn your back on a fire when backing out.</u></li><li>▪ <u>Overhaul the fire</u> to be sure that it is extinguished – and stays extinguished.</li></ul>

**COMMUNITY EMERGENCY RESPONSE TEAM**  
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INSTRUCTOR GUIDANCE	CONTENT
<div data-bbox="188 432 626 760" data-label="Image"> </div> <p data-bbox="188 793 461 831"><b>Display Slide 2-23</b></p> <p data-bbox="188 877 623 949">Explain that a small fire, unlike a large fire:</p> <ul data-bbox="188 1003 594 1150" style="list-style-type: none"> <li>▪ Is about the size of a wastepaper can</li> <li>▪ Can be extinguished with one fire extinguisher</li> </ul> <p data-bbox="188 1184 587 1360">Remind the group of the earlier demonstration (using burning cotton in the Pyrex<sup>®</sup> jar) to stress the need for overhauling.</p>	<p data-bbox="659 407 1403 478">Stress that what CERTs <u>don't</u> do when suppressing fires is as important as what they should do. <u>DON'T</u>:</p> <ul data-bbox="659 495 1438 974" style="list-style-type: none"> <li>▪ <u>Get too close</u>. Stay near the outer range of your extinguisher. If you feel the heat, you are too close.</li> <li>▪ <u>Try to fight a fire alone</u>. Remember that your first priority is your personal safety. Don't put it at risk.</li> <li>▪ <u>Try to suppress large fires</u>. Learn the capability of your equipment, and do not try to suppress a fire that is clearly too large for the equipment at hand (i.e., a fire that is larger than the combined ratings of available fire extinguishers).</li> <li>▪ <u>Enter smoke-filled areas</u>. Suppressing fires in smoke-filled areas requires equipment that CERTs don't have.</li> </ul>

**COMMUNITY EMERGENCY RESPONSE TEAM**  
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<b>PM, P. 2-27</b>	<b>Fire Suppression Safety Rules</b>
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- Use safety equipment at all times. Wear your helmet, goggles, dust mask, leather gloves, and sturdy shoes or boots. If you are not equipped to protect your personal safety, leave the building.
- Work with a buddy. Buddies serve an important purpose. They protect your safety. Don't ever try to fight a fire alone.
- Have a backup team, whenever possible. A backup team just makes good sense. A backup team can support your fire suppression efforts and can provide help if you need it.
- Always have two ways to exit the fire area. Fires spread much faster than you might think. Always have a backup escape plan in case your main escape route becomes blocked.
- Look at the door. If air is being sucked under the door or smoke is coming out of the top of the door, do not touch the door.
- Feel closed doors with the back of the hand, working from the bottom of the door up. Do not touch the door handle before feeling the door. If the door is hot, there is fire behind it. Do not enter! Opening the door will feed additional oxygen to the fire.
- Confine the fire, whenever possible, by keeping doors closed.
- Maintain a safe distance. Remember the effective range of your fire extinguisher. Don't get closer than necessary to extinguish the fire.
- Overhaul the fire to be sure that it is extinguished — and stays extinguished.

What CERTs don't do when suppressing fires is as important as what they should do.  
**DON'T:**

- Get too close. Stay near the outer range of your extinguisher. If you feel the heat, you are too close.
- Try to fight a fire alone. Remember that your first priority is your personal safety. Don't put yourself at risk.
- Try to suppress large fires. Learn the capability of your equipment, and do not try to suppress a fire that is clearly too large for the equipment at hand (i.e., a fire that is larger than the combined ratings of available fire extinguishers).
- Enter smoke-filled areas. Fire suppression in smoke-filled areas requires equipment that CERTs don't have.

**COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 2: FIRE SAFETY AND UTILITY CONTROLS**

INSTRUCTOR GUIDANCE	CONTENT
<p>Ask for a volunteer to assist you in demonstrating this technique.</p> <p>After reviewing the fire suppression procedure, show the video <i>Fire Safety: The CERT Member's Role</i>.</p>	<p><b>Proper Fire Suppression Procedures</b></p> <p>Describe and demonstrate the process for proper fire suppression.</p> <p>Explain briefly the responsibilities of each buddy. A buddy system is used in all cases. The job of Team Member 1 is to put out a fire with an extinguisher. The job of Team Member 2 is to watch for hazards and ensure the safety of both team members.</p> <ol style="list-style-type: none"> <li>1. Assume ready position. With the pin pulled, Team Member 1 holds the extinguisher aimed and upright, approximately 20 to 25 feet from the fire for small fires.</li> <li>2. When ready to approach the fire, Team Member 1 should say, "Ready." Team Member 2 should repeat, "Ready."</li> <li>3. As Team Member 1 begins to move forward, he or she should say, "Going in." Team Member 2 should repeat the command and stay within reach of Team Member 1.</li> <li>4. Both team members should walk toward the fire. Team Member 1 should watch the fire and Team Member 2 should stay close to Team Member 1, keeping his or her hand on Team Member 1's shoulder. Team Member 2's job is to protect Team Member 1.</li> <li>5. When Team Member 1 is exiting the fire area, he or she should say, "Backing out." Team Member 2 should repeat the command.</li> <li>6. Team Member 2 should guide Team Member 1 from the area with his or her hands as Team Member 1 continues facing the fire and looking for other hazards. Team Member 1 must never turn his or her back on the fire scene.</li> </ol>



**COMMUNITY EMERGENCY RESPONSE TEAM**  
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INSTRUCTOR GUIDANCE	CONTENT
	<p><b>Does anyone have any questions about fire suppression safety?</b></p> <p>Tell the group that next they are going to learn about identifying hazardous materials.</p>


**COMMUNITY EMERGENCY RESPONSE TEAM  
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INSTRUCTOR GUIDANCE	CONTENT
<div data-bbox="188 485 267 558"></div> <p data-bbox="188 590 516 657">Allow the group time to respond.</p> <div data-bbox="188 726 626 1052"></div> <p data-bbox="188 1087 462 1123"><b>Display Slide 2-24</b></p>	<p data-bbox="659 386 1024 422"><b><i>Hazardous Materials</i></b></p> <p data-bbox="659 485 1339 520"><b>How do you know if a material is hazardous?</b></p> <p data-bbox="659 695 1437 768">Explain that materials are considered hazardous if they have <u>any</u> of the characteristics listed on the slide:</p> <ul data-bbox="659 783 1364 1087" style="list-style-type: none"><li>▪ Corrode other materials</li><li>▪ Explode or are easily ignited</li><li>▪ React strongly with water</li><li>▪ Are unstable when exposed to heat or shock</li><li>▪ Are otherwise toxic to humans, animals, or the environment through absorption, inhalation, injection, or ingestion</li></ul> <p data-bbox="659 1161 1404 1234">Explain that hazardous materials include, but are not limited to:</p> <ul data-bbox="659 1249 1128 1587" style="list-style-type: none"><li>▪ Explosives</li><li>▪ Flammable gases and liquids</li><li>▪ Poisons and poisonous gases</li><li>▪ Corrosives</li><li>▪ Nonflammable gases</li><li>▪ Oxidizers</li><li>▪ Radioactive materials</li></ul>

**COMMUNITY EMERGENCY RESPONSE TEAM**  
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INSTRUCTOR GUIDANCE	CONTENT
 <p>Acknowledge the participants' responses.</p>	<p><b>Why is it important to know if hazardous materials are present?</b></p> <p>If not mentioned by the group, explain that knowledge that hazardous materials are present helps to protect CERT members' safety and is valuable sizeup information for all first responders.</p> <p><b>Identifying Hazardous Materials Locations</b></p> <p>Explain that there are several ways to identify locations where hazardous materials are stored, used, or in transit:</p> <ul style="list-style-type: none"><li>▪ Location and type of occupancy</li><li>▪ Placards</li><li>▪ Sights, sounds, and smells</li></ul> <p><u>Location and Type of Occupancy</u></p> <p>Explain that hazardous materials are commonplace throughout every community. They are used in many commercial processes and sold in many retail outlets. While these hazards are managed under normal circumstances, accidents and disasters can cause these materials to be released into the environment.</p> <p>Provide some common locations in the community:</p> <ul style="list-style-type: none"><li>▪ Industrial locations (e.g., warehouse, rail yard, shipyard)</li><li>▪ Dry cleaner</li><li>▪ Funeral home</li><li>▪ Home supply store</li><li>▪ Big box store</li><li>▪ Delivery van (UPS, FedEx)</li></ul>

COMMUNITY EMERGENCY RESPONSE TEAM  
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INSTRUCTOR GUIDANCE	CONTENT
<p data-bbox="191 447 266 516"></p> <p data-bbox="191 600 626 921"></p> <p data-bbox="191 957 461 989">Display Slide 2-25</p>	<p data-bbox="659 380 784 411"><u>Placards</u></p> <p data-bbox="659 453 1406 558"><b>Has anyone ever seen the symbol in the slide or one similar to it? Does anyone know what it is or what it means?</b></p> <p data-bbox="659 600 1422 852">If not mentioned by the group, explain that the placard is an <u>NFPA 704 Diamond</u>— the identification system instituted by the National Fire Protection Association. The NFPA 704 Diamond is a concise system for identifying the hazards associated with specific materials. This placard would be found on a fixed facility.</p> <p data-bbox="659 894 1438 1073">Tell the participants that the diamond is divided into four colored quadrants, each with a rating number inside of it, and that the number indicates the degree of risk associated with the material. Numbers range from 1 to 4. <b>The higher the number the higher the risk!</b></p> <p data-bbox="659 1115 837 1146">Explain that:</p> <ul data-bbox="659 1167 1308 1346" style="list-style-type: none"><li data-bbox="659 1167 1308 1241">▪ The <u>red</u> quadrant describes the material's <u>flammability</u>.</li><li data-bbox="659 1251 1308 1293">▪ The <u>blue</u> quadrant indicates <u>health hazard</u>.</li><li data-bbox="659 1304 1308 1346">▪ The <u>yellow</u> quadrant indicates <u>reactivity</u>.</li></ul>

**COMMUNITY EMERGENCY RESPONSE TEAM**  
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INSTRUCTOR GUIDANCE	CONTENT
<p data-bbox="196 426 423 453"><b>The White Quadrant</b></p> <ul data-bbox="212 472 407 600" style="list-style-type: none"><li>• NFPA 704 Diamond White Quadrant:<ul style="list-style-type: none"><li>• <b>W</b>: Shows unusual reactivity with water</li><li>• <b>OX</b>: Possesses oxidizing properties</li></ul></li></ul>  <p data-bbox="196 701 626 730">FEMA CERT Basic Training Unit 2: Fire Safety and Utility Controls 2-26</p> <p data-bbox="188 766 461 800"><b>Display Slide 2-26</b></p>	<p data-bbox="659 380 1398 485">Point out that the <u>white</u> quadrant indicates <u>special precautions</u>. There are two symbols specified in the National Fire Codes, section 704.</p> <ul data-bbox="659 506 1414 810" style="list-style-type: none"><li>▪ <b>W</b> indicates a material that displays unusual reactivity with water (i.e., should never be mixed with water or have water sprayed on it). <u>Magnesium metal</u> is an example of a material that is reactive to water.</li><li>▪ <b>OX</b> indicates a material that possesses oxidizing properties. <u>Ammonium nitrate</u> is an example of a material with oxidizing properties.</li></ul> <p data-bbox="659 831 1398 894">Explain that materials that are oxidizers increase the potential for explosion or fire.</p> <p data-bbox="659 957 1430 1062">Tell participants that in addition to the above symbols that are specified under the National Fire Codes, some NFPA 704 Diamonds will include additional symbols:</p> <ul data-bbox="659 1083 1325 1283" style="list-style-type: none"><li>▪ <u>ACID</u> indicates that the material is an acid.</li><li>▪ <u>ALK</u> indicates that the material is a base.</li><li>▪ <u>COR</u> indicates that the material is corrosive.</li><li>▪  indicates that the material is radioactive.</li></ul>
<p data-bbox="196 1388 269 1415"><b>STOP!</b></p>  <p data-bbox="196 1667 626 1696">FEMA CERT Basic Training Unit 2: Fire Safety and Utility Controls 2-27</p> <p data-bbox="188 1732 461 1766"><b>Display Slide 2-27</b></p>	<p data-bbox="659 1346 1430 1482">Stress that the numbers within the NFPA 704 Diamond are used to assist professional firefighters in responding to accidents or fires. <u>CERT members should consider these placards a “stop sign.”</u></p> <p data-bbox="659 1524 1430 1671">The only action CERT members should take is to evacuate persons who are downwind, as necessary, to an uphill or upwind location. Do not enter the building in an attempt to evacuate persons inside.</p>

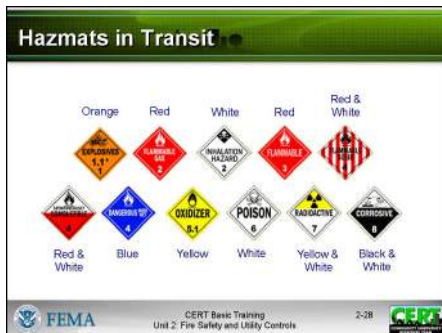
**COMMUNITY EMERGENCY RESPONSE TEAM**  
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INSTRUCTOR GUIDANCE	CONTENT
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Mention or use slides to illustrate local transportation hazards and any facilities that use the NFPA 704 Diamond, to provide more relevance to the discussion.

If possible, show the group an actual 704 placard to improve recognition.



**Display Slide 2-28**



The NA placarding system is being phased out but is still occasionally used, usually on hazardous materials being transported from Canada.

**Identifying Hazardous Materials in Transit**

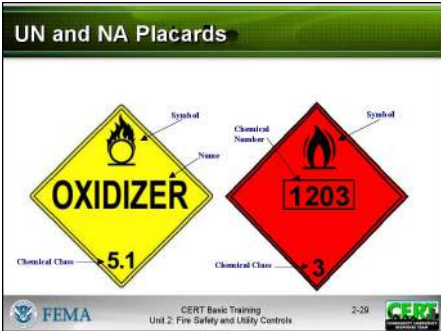
**Does anyone recognize the placards in the slide?**

If not mentioned by the group, explain that they are Department of Transportation (DOT) placards.

Explain that the DOT placard is one of three ways that hazardous materials are marked and identified while in transit. The other two ways are:

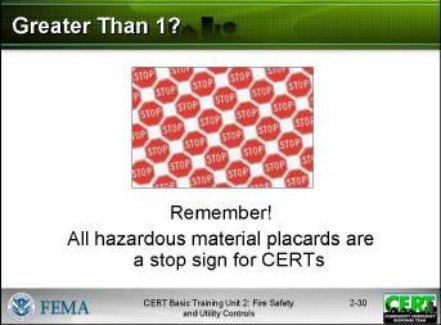

- The United Nations (UN) system
- The North American (NA) warning placards

**COMMUNITY EMERGENCY RESPONSE TEAM**  
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INSTRUCTOR GUIDANCE	CONTENT
<p>If anyone asks, hazardous materials that require placarding in any quantity include poisonous gases that present an inhalation hazard (DOT Class 2.3), poisonous liquids that present an inhalation hazard (DOT Class 6.1), and radioactive materials (DOT Class 7).</p> <p><b>PM, P. 2-33</b></p>  <p><b>Display Slide 2-29</b></p> <p>If possible, show the participants actual DOT placards to improve recognition.</p>	<p>Point out that these placards can be on any vehicle, not only tankers. Also, emphasize that:</p> <ul style="list-style-type: none"> <li>▪ No placard is required for less than 1,000 pounds of many hazardous materials.</li> <li>▪ Certain hazardous materials (e.g., anhydrous ammonia) are placarded as a nonflammable gas for domestic transport but as a flammable gas for international transport. (<u>Anhydrous ammonia is a flammable gas!</u>)</li> <li>▪ Sometimes drivers forget to change the placard when they change their cargo. CERT members should use extreme caution when approaching any vehicle in an accident.</li> </ul> <p>Refer the participants to the <i>DOT Placard Warning</i> illustrations in the Participant Manual.</p> <p>Tell the group that this slide shows examples of the UN and NA systems. The UN and NA systems are displayed mainly on tank cars, cargo tanks, rail cars, and portable tanks.</p> <p>Explain that, like the NFPA 704 Diamond, the DOT, UN, and NA placards should be a “stop sign” for CERT members. CERT members should always err on the side of safety. They should <i>not</i> assume that, because there is no placard, no hazardous materials are present. Treat any unknown situation as a hazardous materials incident.</p>

**COMMUNITY EMERGENCY RESPONSE TEAM**  
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INSTRUCTOR GUIDANCE	CONTENT
<p data-bbox="196 394 423 422">Greater Than 1?</p>  <p data-bbox="190 737 461 772"><b>Display Slide 2-30</b></p> 	<p data-bbox="657 380 1419 485">As a general rule of thumb, if you see a number in the NFPA 704 Diamond that is greater than one, stay away.</p> <p data-bbox="657 831 1049 863"><u>Sights, Sounds, and Smells</u></p> <p data-bbox="657 884 1430 1167">Explain that hazardous materials are all around us and may be present regardless of the location or whether there are placards or other posted warnings. While hazardous materials often smell, sound, or look unusual, participants may not be able recognize something toxic. Participants should stay away from any unidentifiable substance and alert building managers or authorities.</p> <p data-bbox="657 1209 1425 1314"><b>Does anyone have any questions about hazardous materials or how they are identified in storage or transport?</b></p> <p data-bbox="657 1398 1281 1440"><b><i>Exercise: Suppressing Small Fires</i></b></p> <p data-bbox="657 1493 1398 1566"><b><u>Purpose:</u></b> This exercise will provide the participants with experience in two key areas of fire suppression:</p> <ul data-bbox="657 1587 1373 1703" style="list-style-type: none"><li>▪ Using a portable fire extinguisher to suppress a small fire</li><li>▪ Applying teamwork to fire suppression</li></ul> <p data-bbox="657 1724 1430 1860"><u>Ensure that all of the participants are dressed properly and wear safety equipment for this exercise.</u> Dress for this exercise may be casual. However, shorts and open-toed shoes should not be permitted.</p>



**COMMUNITY EMERGENCY RESPONSE TEAM**  
**UNIT 2: FIRE SAFETY AND UTILITY CONTROLS**

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INSTRUCTOR GUIDANCE	CONTENT
<p>It is advisable to demonstrate critical steps (e.g., the “ready” position) before allowing the participants to complete this exercise.</p>	<p>Prepare a propane gas fire source outside in an area with at least 40 feet of open space upwind of the fire source. Provide Class A:B:C portable extinguishers.</p> <p>This exercise requires two instructors: Instructor 1 will lead the exercise. Instructor 2 will observe and serve as the exercise Safety Officer.</p> <p><b>Instructions:</b> Follow the steps below to conduct this exercise. <b>Coach the participants through the exercise using the instructions shown in bold type.</b></p> <ol style="list-style-type: none"><li>1. Assign the participants to two-person teams. Stress that participants must communicate with each other. The emphasis is on safety and teamwork.</li><li>2. Taking one team at a time, provide each team member with a portable fire extinguisher.</li><li>3. Instructor 2 will light the fire, using a road flare mounted on a long pole, when Instructor 1 indicates that the participants are ready to begin the exercise.</li><li>4. Before allowing the participants to begin this exercise, Instructor 1 should ask them:<ul style="list-style-type: none"><li>▪ What their exit routes are</li><li>▪ From which direction the wind is blowing</li><li>▪ Whether the fire is spreading and where it would be in the next 30 seconds</li></ul></li></ol>

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	<p>5. Ask Team Member 1 to assume the “ready” position, with pin pulled, extinguisher aimed and upright, approximately 20 to 25 feet from the fire.</p> <p><b>When ready to approach the fire, Team Member 1 should say, “Ready.” Team Member 2 should repeat, “Ready.”</b></p> <p><b>As Team Member 1 begins to move forward, he or she should say, “Going in.” Team Member 2 should repeat the command and place his or her hand on Team Member 1’s shoulder and stay within reach of Team Member 1.</b></p> <p>6. Ask Team Member 2 to act as backup, assuming the “ready” position at an arm’s distance from Team Member 1.</p> <div style="text-align: center;"> </div>

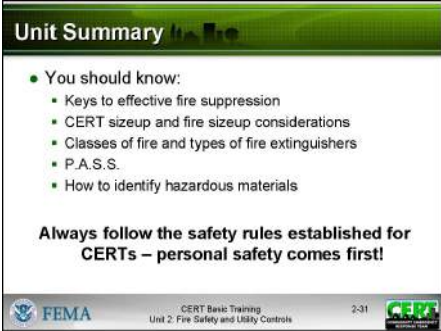
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INSTRUCTOR GUIDANCE	CONTENT
	<p>7. Position Instructor 1 between the participants and the fire at all times.</p> <p><b>Both team members should walk toward the fire. Team Member 1 should watch the fire and Team Member 2 should stay close to Team Member 1, keeping his or her hand on Team Member 1's shoulder. Team Member 2's job is to protect Team Member 1.</b></p> <p>8. Ask Team Member 1 to approach the fire from the windward side (i.e., with the wind to the participant's back). When approximately 10 feet from the fire, Team Member 1 should begin to discharge the extinguisher at the base of the fire, continuing the approach until the range for the extinguisher is optimal.</p> <p>9. Team Member 1 should sweep the base of the fire until it is extinguished.</p> <p><b>When Team Member 1 is ready to exit the fire area, he or she should say, "Backing out." Team Member 2 should repeat the command. Team Member 2 should guide Team Member 1 from the area with his or her hands as Team Member 1 continues facing the fire and looking for other hazards.</b></p> <p>After the fire is extinguished, ask the participants to trade positions and repeat the exercise. If time permits, allow each participant to use the extinguisher twice, to provide added practice.</p> <p>Repeat this exercise with the other teams until all participants have had the opportunity to extinguish the fire.</p>

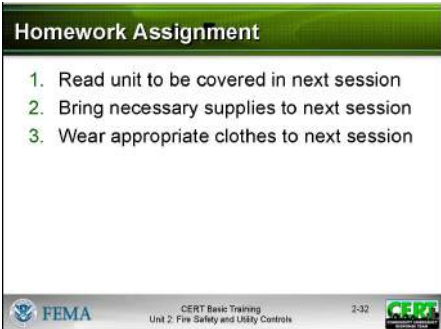
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INSTRUCTOR GUIDANCE	CONTENT
 <p><b>Display Slide 2-31</b></p>	<p><b><i>Unit Summary</i></b></p> <p>Summarize the key points of this unit:</p> <p>Effective fire suppression depends on an understanding of:</p> <ul style="list-style-type: none"><li>▪ The elements required for fire to exist</li><li>▪ The type of fuel involved</li><li>▪ The class of fire</li><li>▪ The resources required and available to extinguish each type of fire</li><li>▪ Effective fire suppression techniques</li></ul> <p>Fire requires heat, fuel, and oxygen to exist.</p> <p>There are five types, or classes, of fire:</p> <ul style="list-style-type: none"><li>▪ Class A: Ordinary combustibles</li><li>▪ Class B: Flammable liquids</li><li>▪ Class C: Energized electrical equipment</li><li>▪ Class D: Combustible metals</li><li>▪ Class K: Cooking oils</li></ul> <p>It is extremely important to identify the class of fire to use the proper extinguisher for the class.</p> <p>Portable fire extinguishers are most frequently used for suppressing small fires. Their labels tell the types of fires for which they are effective and the area that they can suppress.</p> <p>When using portable fire extinguishers, remember P.A.S.S.: Pull, Aim, Squeeze, and Sweep. Always test the extinguisher after pulling the pin.</p> <p>When suppressing a fire, <u>always</u> follow the safety rules established for CERTs.</p>

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<div data-bbox="188 648 626 974"></div> <p data-bbox="188 1010 461 1045"><b>Display Slide 2-32</b></p>	<p data-bbox="657 415 1430 611">To help understand the types of materials, there are several methods of placarding hazardous materials being stored or transported, including NFPA, DOT, UN, and NA. When faced with accidents involving materials that are placarded as hazardous — or when the material is unknown — <u>keep away and call for professional help immediately.</u></p> <p data-bbox="657 653 1013 688"><b>Homework Assignment</b></p> <p data-bbox="657 726 1409 793">Remind the participants that, before the next session, they should:</p> <ul data-bbox="657 816 1333 1234" style="list-style-type: none"><li>▪ Read and familiarize themselves with Unit 3: Disaster Medical Operations — Part I in the Participant Manual.</li><li>▪ Obtain and bring to the session:<ul data-bbox="708 995 1235 1234" style="list-style-type: none"><li>• One box of 4- by 4-inch bandages</li><li>• One roll of gauze</li><li>• One medical mask (N95)</li><li>• One pair of examination gloves</li><li>• One blanket</li></ul></li></ul> <p data-bbox="657 1257 1430 1360">Ask the participants to wear comfortable clothes for the next session because they will be practicing medical techniques.</p> <p data-bbox="657 1402 1425 1505">Thank the participants for attending the session. Remind them of the date and time for the next session if necessary.</p>

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