



# Fire Protection Training

Procedures Handbook 4300

PORTABLE FIRE EXTINGUISHERS

**TOPIC:** Portable Fire Extinguisher Regulations and Servicing

**TIME FRAME:** 1 Hour

**LEVEL OF INSTRUCTION:**

**BEHAVIORAL OBJECTIVE:**

*Condition:* A written quiz

*Behavior:* The student will be able to list and describe regulations and service requirements for portable fire extinguishers.

*Standard:* With a minimum of 70% accuracy

**MATERIALS NEEDED:**

- Appropriate visual aids
- Audio visual equipment

**REFERENCES:**

- California Code of Regulations, Title 19, Subchapter 3;  
National Fire Protection Association Pamphlet #10;  
Uniform Fire Code Standards 10-1

**PREPARATION:** Portable fire extinguishers serve a vital function in the suppression of small fires, and are required to be installed in various occupancies for life and property protection. It is essential that extinguishers be serviced in accordance with national standards, state laws and regulations, as well as, department and unit policies.



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PRESENTATION	APPLICATION
<p><b>I. LAWS</b></p> <p>A. Health and Safety Code</p> <ol style="list-style-type: none"><li>1. Requires that the State Fire Marshal adopt regulations that govern the sale, installation and servicing of portable fire extinguishers.</li></ol> <p><b>II. REGULATIONS</b></p> <p>A. California Code of Regulations, Title 19, Subchapter 3</p> <ol style="list-style-type: none"><li>1. State Fire Marshal<ol style="list-style-type: none"><li>a. Establishes regulations and standards for portable fire extinguishers</li><li>b. Controls servicing, testing and marketing of portable fire extinguishers<ol style="list-style-type: none"><li>(1) Does not affect fire protection systems</li></ol></li><li>c. Enforces regulations</li></ol></li></ol> <p>B. Licenses</p> <ol style="list-style-type: none"><li>1. Issued by the State Fire Marshal authorizing a person, firm, corporation or association to engage in the business of servicing, charging, inspecting or hydrostatic testing of any portable fire extinguisher</li></ol>	<p>What California regulations covers the marketing, recharging and testing of portable fire extinguishers?</p>



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<p>2. Types of licenses:</p> <ul style="list-style-type: none"><li>a. Type A<ul style="list-style-type: none"><li>(1) Service, charge, recharge, inspect or hydrotest any type extinguisher</li></ul></li><li>b. Type B<ul style="list-style-type: none"><li>(1) Service, charge, recharge or inspect any or all extinguishers except dry chemical units</li></ul></li><li>c. Type C<ul style="list-style-type: none"><li>(1) Hydrostatic test of water and chemical fire extinguishers</li></ul></li><li>d. Type D<ul style="list-style-type: none"><li>(1) Inspect, service, charge, recharge or conduct hydrostatic tests of dry chemical units except hydrotest of D.O.T. listed cylinders</li></ul></li><li>e. Type E<ul style="list-style-type: none"><li>(1) Hydrostatic tests of extinguishers on cylinders listed by D.O.T.</li></ul></li></ul> <p>3. Change of location</p> <ul style="list-style-type: none"><li>a. Licensed concern must notify State Fire Marshal within 15 days</li></ul>	<p>Does not apply to fire suppression extinguishers utilized on incidents</p> <p>What are the various types of licenses?</p>



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<ul style="list-style-type: none"> <li>b. Must notify local agency within 7 days</li> <li>4. Restrictive use               <ul style="list-style-type: none"> <li>a. Does not provide authorization to enter upon any persons property</li> <li>b. Does not allow enforcement of any of the regulations</li> </ul> </li> <li>5. Registration number               <ul style="list-style-type: none"> <li>a. Every license shall be identified by an E-(number)</li> <li>b. Transfer of numbers must be approved by the State Fire Marshal's Office</li> </ul> </li> <li>C. Certificates of Registration               <ul style="list-style-type: none"> <li>1. Issued by the State Fire Marshal authorizing a person to perform service, recharge, or testing of portable fire extinguisher</li> <li>2. Type                   <p>Shall indicate the type of act or acts which the applicant is qualified to perform</p> <ul style="list-style-type: none"> <li>a. Type 1                       <ul style="list-style-type: none"> <li>(1) Charge, recharge, service and/or inspect any or all types of fire extinguisher cylinders</li> </ul> </li> <li>b. Type 2                       <ul style="list-style-type: none"> <li>(1) Hydrostatic test any or all wet and/or non D.O.T. cylinders</li> </ul> </li> </ul> </li> </ul> </li> </ul>	<p>Who issues the certificates of registration?</p>



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<ul style="list-style-type: none"><li>c. Type 3<ul style="list-style-type: none"><li>(1) Hydrostatic test any or all D.O.T. listed cylinders by the water jacket volumetric expansion method</li></ul></li><li>d. Type 4<ul style="list-style-type: none"><li>(1) Hydrostatic test any or all D.O.T. listed cylinder by the direct pressure method</li></ul></li><li>e. Type 5<ul style="list-style-type: none"><li>(1) Hydrostatic test of any or all D.O.T. cylinders by the proof pressure method</li></ul></li><li>3. Change of address<ul style="list-style-type: none"><li>a. Certificate holder must notify the State Fire Marshal within 15 days</li></ul></li><li>4. Verify identity<ul style="list-style-type: none"><li>a. Must show and permit the examination of such certificate by the local inspection authority upon request</li></ul></li><li>5. Examination<ul style="list-style-type: none"><li>a. The applicant must pass a State Fire Marshal examination to obtain a certificate of registration</li></ul></li><li>6. Certificate identification<ul style="list-style-type: none"><li>a. Every certificate shall be identified by a EE-(number), this number is non-transferable</li></ul></li></ul> <p>D. Labels</p>	



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<ul style="list-style-type: none"><li>1. Must comply with State Fire Marshal regulations and Uniform Fire Code Standard 10-1</li><li>2. Required on all portable fire extinguishers</li></ul> <p>E. Placement of Portable Fire Extinguishers</p> <ul style="list-style-type: none"><li>1. The number and type of portable fire extinguishers to be installed shall be determined by the inspection authority</li><li>2. Multiple classifications may be used to meet combined extinguisher requirements</li><li>3. Accessibility<ul style="list-style-type: none"><li>a. Readily accessible</li><li>b. Readily visible - when approved by the inspecting agency extinguishers do not need to be visible if approved directoral signs are provided</li></ul></li></ul>	<p>Who has the authority to determine the number and type of fire extinguishers to be installed?</p>
<p><b>III. SERVICE REQUIREMENTS</b></p> <p>A. Servicing</p> <ul style="list-style-type: none"><li>1. Shall be serviced or inspected each year or after each use whichever occurs first</li></ul>	<p>At what frequency must the portable fire extinguishers be serviced?</p>



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<ul style="list-style-type: none"> <li>2. Non refillable extinguishers shall not be recharged</li> <li>3. Cartridges shall be weighed yearly</li> </ul> <p>B. Service Tags</p> <ul style="list-style-type: none"> <li>1. Every fire extinguisher inspected, serviced, charged or recharged shall have an approved service tag affixed</li> <li>2. Internal maintenance tag - shall be placed on the topmost portion of the septon (pick-up) tube of all extinguishers when recharged, except               <ul style="list-style-type: none"> <li>a. Carbon dioxide</li> <li>b. Halon</li> <li>c. External cartridge operated</li> </ul> </li> </ul>	<p>What is the purpose of the service tag?</p>
<p><b>IV. INSPECTION AND RECHARGE</b></p> <ul style="list-style-type: none"> <li>A. Inspections and Recharging of Portable Fire Extinguishers Shall be Performed by trained Personnel</li> <li>B. All Parts, Chemicals, and Recharge Equipment Shall Meet Manufacturers Specifications for the Various Types of Fire Extinguishers</li> <li>C. The Serviceman Shall Check the Following During an Inspection</li> </ul>	<p>What procedures must be followed by the serviceman during an inspection?</p>



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<ol style="list-style-type: none"><li>1. Located in an approved location - both accessible and visible</li><li>2. Operating instructions are legible and facing outward</li><li>3. Seals and safety pins in place</li><li>4. Extinguisher is weighed with an approved scale, weight is listed on instruction plate</li><li>5. Hydrostatic test date has not expired</li><li>6. Examined for obvious physical damage, corrosion, leakage, or clogged nozzle or hose</li><li>7. Determine that the pressure gauge reading or indicator is in the operable range or position</li><li>8. If annual inspection affix a current service tag</li></ol> <p>D. The Serviceman Shall Complete the Following Procedures During a Recharge or Annual Service</p> <ol style="list-style-type: none"><li>1. Release any pressure in the cylinder and remove cartridge</li><li>2. Disassemble extinguisher</li><li>3. Clean all parts, threads and "O" rings</li><li>4. Inspect and/or replace chemical (see manufacturers specifications)</li><li>5. Apply internal tag if required</li><li>6. Reassemble extinguisher<ol style="list-style-type: none"><li>a. Hand tighten only</li></ol></li><li>7. Repressurize with nitrogen, dry air, or replace CO2 cartridge</li></ol>	



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<p>a. Replace safety pin and seal</p> <p>b. On cartridge operated units replace cartridge</p> <p>8. Attach service tag</p> <p><b>V. HYDROSTATIC TEST REQUIREMENTS</b></p> <p>A. Hydrostatic Tests Shall Only be Performed by Properly Trained Personnel with Approved Equipment and Test Facilities.</p>	<p>What are the hydrostatic test requirements?</p>



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## ***SUMMARY:***

The objective of installing and servicing portable fire extinguishers in accordance with National Standards and State Law is to assure that the extinguisher will work properly when used to protect life and property. It is also equally important that firefighters recognize and understand the servicing and inspection processes so they may be able to identify errors being performed by service or repair personnel.

## ***EVALUATION:***

A written quiz.

## ***ASSIGNMENT:***

To be determined by instructor(s).