

## OSHA Directives

### STD 1-9.2 - 29 CFR 1910.157(f),(f)(2)(i) and (f)(4) Hydrostatic Testing of Dry Chemical Cartridge Portable Fire ...

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- **Record Type:** Instruction
  - **Directive Number:** STD 1-9.2
  - **Standard Number:** 1910.157(f)
  - **Subject:** 29 CFR 1910.157(f),(f)(2)(i) and (f)(4) Hydrostatic Testing of Dry Chemical Cartridge Portable Fire ...
  - **Information Date:** 08/05/1981
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Subject: 29 CFR 1910.157(f)(2),(f)(2)(i) and (f)(4) Hydrostatic Testing of Dry Chemical Cartridge Portable Fire Extinguishers

A. Purpose. This instruction provides specified exceptions for fire extinguisher repairs and/or subsequent hydrostatic tests which do not meet the requirements of 29 CFR 1910.157(f)(2),(f)(2)(i) and (f) (4) and are performed under conditions imposed by the manufacturer.

B. Scope. This instruction applies OSHA-wide.

C. Action. Regional Administrators/Area Directors shall take action to ensure that 29 CFR 1910.157(f)(2),(f) (2)(i) and (f)(4) are enforced in accordance with E. of this instruction.

D. Federal Program Change. This instruction describes a Federal program change which affects State programs. Each Regional Administrator shall:

1. Ensure that this change is forwarded to each State designee.
2. Explain the technical content of the change to the State designee as requested.
3. Ensure that State designees are asked to acknowledge receipt of this Federal program change in writing, within 30 days of notification, to the Regional Administrator. This acknowledgment should include a description either of the State's plan to implement the change or of the reasons why the change should not apply to that State.

4. Review policies, instructions and guidelines issued by the State to determine that this change has been communicated to State program personnel. Routine monitoring activities (accompanied inspections and case file reviews) shall also be used to determine if this change has been implemented in actual performance.

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E. Guidelines. Repairs will be permitted on dry chemical, cartridge type extinguisher shells constructed of mild steel when such repairs are by silver brazing and are performed in conformance with the pertinent requirements of the extinguishers' manufacturer.

1. Repairs shall only be performed by trained persons deemed competent and approved by the employer.

2. The employer shall have available and provide the Compliance Officer the employer's written designation of the approved competent person and the current manufacturer's instructions which provide for repairs, tests and/or maintenance of any fire extinguishers covered by this instruction.

3. After completion of allowable repairs, the unit shall be hydrostatically tested in accordance with the manufacturers written test instructions.

4. Allowable Repairs and Hydrostatic Test Requirements. The following allowable repairs and test requirements are considered within the scope of 29 CFR 1910.157 (f)(2), (f)(2)(i) and (f)(4):

a. Hand Portable Mild Steel, Dry Chemical Cartridge Operated Extinguishers. 1. Repairs shall be by means of silver brazing only.

2. Silver brazing is restricted to extinguisher components such as the carrying handle lug, nozzle holster nuts, hanger attachment, visual seal attachment, etc., which are specifically within the manufacturer's limitations.

3. Silver brazing shall not be allowed where the mild steel shell is damaged as by tearing, etc., of the parent metal from the shell.

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b. Wheeled Extinguishers.

1. Welding is restricted to such elements of the wheeled conveyance as the handle, axle shroud, nitrogen cylinder stand, etc., which are specifically within the manufacturer's limitations and do not affect the safety factor.

2. Welding shall not be allowed where the mild steel shell is damaged, as by the tearing, etc., of the parent metal from the shell.

3. Hydrostatic testing as required in 29 CFR 1910.157 (f)(1), (f)(2) and (f)(4) shall be conducted after allowable repairs are made directly to the pressure vessel.

NOTE: The manufacturer's instructions for allowable repairs and hydrostatic testing are not exempted from other applicable OSHA standards unless by a particular directive, variance or other official notification.

F. Background. Presently, Subpart L, 29 CFR 1910.157(f) (2) (i), does not provide for exceptions when fire extinguishers have been repaired by soldering, welding, brazing or use of patching compounds.

1. The source for the development of the Subpart L standards included NFPA 10-1970 and coordination with the NFPA during the recent changes to NFPA 10. The provisions of NFPA 10-1978, 5-1.3 (examination of cylinder condition) includes a note which states "For welding or brazing on mild steel shells, consult the manufacturer of the extinguisher". These recent changes reflect the intent of Appendix B to Subpart L which contains a cross reference listing of current national consensus standards. These standards contain information and guidelines which are considered acceptable in complying with requirements in the specific sections of Subpart L.

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2. As indicated by the manufacturers instructions, specified repairs can be made and subsequent hazards reduced by following the procedures, limitations, standards and quality assurance which ensure safety.

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