Portable Fire Extinguishers — OSHA Standard 1910.157

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The Impact of Safety on Florida Agriculture

Florida agriculture, including forestry and fishing, made an annual economic impact of $98 billion in 2004. More than 390,000 workers are directly employed in these industries in Florida, and another 380,000 people are employed in activities related to agriculture (Hodges 2006). The state's agricultural enterprises range from large citrus, vegetable and cattle operations to small family-operated farms.

In spite of the popular images of agriculture, it is a highly mechanized, industrial profession with one of the highest injury and death rates among U.S. industries. The last study of death rates in Florida agriculture (Liller 2000) found 240 deaths from 1989 to 1998. In 2005, the Bureau of Labor Statistics (BLS 2005a) reported that death due to injury in agriculture was 31.4 deaths per 100,000 full-time workers, which was the highest rate among all major occupational groups and an increase of 14% over 2004. Also in 2005, the Bureau of Labor Statistics reported 6,100 injuries per 100,000 full-time workers (BLS 2005b).

Safety in Florida agriculture is challenging because:

- the state's agricultural enterprises are diverse,
- safety knowledge among workers varies,
- manual labor is used extensively,
- the climate creates year-round heat stress.

Therefore, it is vital to assist the public in learning about OSHA documents related to agriculture. More information about the OSHA Standards and agricultural safety is available at the following Web sites:

- Florida AgSafe: http://www.flagsafe.ufl.edu
- National Agricultural Safety Database: http://www.cdc.gov/nasd

Overview

This document, a condensation of Standard 1910.157 of the Occupational Safety and Health Act, is not intended to be totally inclusive but rather to highlight
the information and requirements in the complete OSHA standard that owners and managers of all agricultural businesses should understand.

The requirements of this standard apply to the placement, use, maintenance and testing of portable fire extinguishers provided for the use of employees. The section "Selection and Distribution" does not apply to extinguishers provided for employee use on the outside of workplace buildings or structures. Where extinguishers are provided but are not intended for employee use and the employer has plans for emergency action and fire prevention that conform to the appropriate OSHA standards, then only the requirements of the section "Inspections, Maintenance and Testing" and the section "Evidence of Testing" apply.

Exemptions

Employers may be exempt from the requirements of this standard in the following situations:

Where the employer has established and implemented a written fire safety policy which:

• requires the immediate and total evacuation of employees from the workplace upon the sounding of a fire alarm signal, and

• which includes an emergency action plan and a fire prevention plan which meet the requirements of OSHA Standards 1910.38 and 1910.39, respectively, and

• when extinguishers are not available in the workplace,

the employer is exempt from all requirements of this section unless a specific standard in part 1910 requires that a portable fire extinguisher be provided.

General Requirements

When the employer must provide portable fire extinguishers, the extinguishers must be approved, and they must be mounted, located, and identified in such a manner that they are readily and safely accessible to employees.

The employer must:

• assure that portable fire extinguishers are maintained in a fully charged and operable condition and kept in their designated places at all times except during use;

• permanently remove from service all soldered or riveted shell self-generating soda acid and/or self-generating foam or gas cartridge water type portable fire extinguishers which are operated by inverting the extinguisher to rupture the cartridge or which initiate an uncontrollable chemical reaction to expel the agent; and

• not provide or make available in the workplace portable fire extinguishers using carbon tetrachloride or chlorobromomethane extinguishing agents.

Selection and Distribution

When portable fire extinguishers must be provided for employee use, they must be selected and distributed based on:

• the classes of anticipated workplace fires, and

• the size and degree of hazard which would affect their use.

Portable fire extinguishers must be distributed for use by employees so that the travel distance for employees to any Class B extinguisher is 50 feet (15.2m) or less, and to any Class A or Class D extinguishers 75 feet (22.9) or less. [Class D fire extinguishers which are designed for use on flammable metals, have little or no use in agriculture. A:B:C fire extinguishers are the more common standard as they can be used on ordinary combustibles, flammable liquids, and electrical fires - they should be located within 50 feet (15.2m) or less.]

The employer must distribute portable fire extinguishers used for Class C hazards on the basis of the appropriate pattern for the existing Class A or Class B hazards.

The employer may use uniformly spaced standpipe systems, or hose stations connected to a sprinkler system, installed for emergency use, instead of Class
A portable fire extinguishers, provided that such systems meet OSHA Standards 1910.158 or 1910.159, as appropriate, that they provide total coverage of the area to be protected, and that employees are trained at least annually in their use.

**Inspection, Maintenance and Testing**

- The employer is responsible for the inspection, maintenance and testing of all portable fire extinguishers in the workplace. Portable extinguishers (or hose station components) must be visually inspected monthly.

- The employer must assure that portable fire extinguishers are given an annual maintenance check. (Stored pressure extinguishers do not require an internal examination.) The employer must record the annual maintenance date and retain this record for one year after the last entry or for life of the shell, whichever is shorter.

- The employer must assure that stored pressure dry chemical extinguishers that require a 12-year hydrostatic test are emptied and subjected to applicable maintenance procedures every 6 years. (Dry chemical extinguishers having non-refillable disposable containers are exempt from this requirement.) When recharging or hydrostatic testing is performed, the 6-year requirement begins from that date.

- The employer must assure that alternate equivalent protection is provided when portable fire extinguishers are removed from service for maintenance and recharging.

**Evidence of Testing**

The employer must maintain, and provide upon request, evidence that the required testing of fire extinguishers has been performed at the proper time intervals. The evidence must be a certification record which includes the date of the test, the signature of the person who performed the test and the serial number, or other identifier, of the fire extinguisher that was tested. These records must be kept until the extinguisher is retested or taken out of service.

See the complete standard for details related to testing of specific extinguisher types.

**Training and Education**

Where the employer has provided portable fire extinguishers for employee use in the workplace, he or she must also provide an educational program to familiarize employees with the general principles of fire extinguisher use and the hazards involved with fighting incipient fires. The employer must provide this education upon initial employment and at least annually thereafter.

If an employer has developed an emergency action plan, then only those employees designated to use fire fighting equipment need to be trained in the use of the appropriate equipment. This training is required upon initial assignment to this designated group of employees and at least annually thereafter.

**Changes to the Standard**

Information from OSHA Standard 1910.157 included in this publication in sections "Overview" and "Exemptions" was altered in 2002 to reflect changes in the numbering of OSHA standards and changes to the exemptions to the standard. [67 FR 67964, Nov. 7, 2002]

**References**


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