

(Adopted January 10, 1992)(Amended September 10, 1999)

RULE 1418. HALON EMISSIONS FROM FIRE EXTINGUISHING EQUIPMENT

(a) Purpose

The purpose of this rule is to reduce halon emissions by requiring the recovery and recycling of halon from fire extinguishing systems, by limiting the use of halon to specified necessary applications, and by prohibiting the sale of portable halon fire extinguishers that contain less than 5 pounds of halon.

(b) Applicability

This rule applies to any person who owns, operates, manufactures, services, or tests portable fire extinguishers or total flooding systems that contain halon, as defined below. This rule also applies to retailers of portable fire extinguishers.

(c) Definitions

For purposes of this rule, the following definitions shall apply:

- (1) ACCIDENTAL DISCHARGE is a halon discharge caused by a false alarm or a leaking total flooding system.
- (2) ACTUAL FIRE is a fire event that is not intentionally ignited for testing or training purposes.
- (3) DISCHARGE TEST is a method of testing the reliability, safety, and effectiveness of total flooding systems during product development, production-line manufacturing or after their installation by releasing halon from the total flooding system.
- (4) HALON is any one of the following compounds or any combination of these compounds: bromochlorodifluoromethane (Halon 1211), bromotrifluoromethane (Halon 1301), dibromotetrafluoroethane (Halon 2402), dibromodifluoromethane (Halon 1202), bromochloromethane (Halon 1011), and bromodifluoromethane (Halon 1201 or FM-100).
- (5) LEAK-FREE is a condition where halon gas is detected at levels no greater than 1000 parts per million during recovery or recycling operations as measured by an electronic halon detector used in accordance with manufacturer's specifications.
- (6) PERSON is any firm, business establishment, association, partnership, corporation or individual, whether acting as principal, agent, employee, or

other capacity, including any governmental entity or charitable organization.

- (7) PORTABLE FIRE EXTINGUISHER is a cylinder or cartridge containing halon which is used for extinguishing fires, and can be carried or wheeled to the site of a fire.
- (8) RECYCLE is to remove halon from a portable or total flooding system for reuse in the same or another system.
- (9) RECOVER is to capture halon from a portable or total flooding system container to a receiving container.
- (10) SERVICE is to inspect, install, maintain, test, replace, relocate, or remove portable fire extinguishers or total flooding systems, the result of which may cause the release of halon.
- (11) TOTAL FLOODING SYSTEM is a halon-containing, stationary fire suppression system which is designed to release its contents in order to extinguish or control a fire.

(d) Requirements

- (1) On and after July 1, 1992, the following requirements shall apply to portable fire extinguishers:
 - (A) No person shall release halon from any portable fire extinguisher unless such person recovers and/or recycles the halon using recovery or recycling equipment with an efficiency of at least 97 percent, or such release is for an actual fire.
 - (B) No person shall sell, distribute, or offer for sale or distribution any portable fire extinguisher which contains less than 5 pounds of halon, unless such an extinguisher is rechargeable, and is assigned a minimum Underwriter's Laboratory extinguisher rating of 5B.
- (2) On and after July 1, 1992, except while conducting a discharge test as provided in paragraph (d)(3), no person shall release halon from any total flooding system unless such person recovers and/or recycles the halon using recovery or recycling equipment with an efficiency of at least 95 percent, or such release is for an actual fire.
- (3) On and after September 10, 1999, no person shall conduct a discharge test on any total flooding system or its components using halon as the test gas unless:

- (A) the use of halons is required through a government specification for aircraft, spacecraft, or military vehicles;
 - (B) total flooding systems employing suitable alternative fire suppression agents to halons are not available or discharge tests using halons are essential to demonstrate system functionality; and
 - (C) the halons are recovered with an efficiency of at least 95 percent, as determined pursuant to paragraph (f)(3), unless the Executive Officer approves a compliance plan containing:
 - (i) a demonstration that a minimum 95 percent recovery efficiency is not technologically achievable; and
 - (ii) other means for recovering halons to the maximum extent feasible.
- (4) On and after July 1, 1992, no person shall service a total flooding system unless that person has or is working under the supervision of a person who has a C-16 classification contractor's license for fire protection, pursuant to Business and Professions Code Division 3, Chapter 9, or has a license issued by the State Fire Marshal, pursuant to California Health and Safety Code, Section 13196.5, Chapter 1.8.
- (5) On and after July 1, 1992, no person shall operate or possess a total flooding system unless each tank for the system is labeled with the following statement: "License required to remove, relocate, or service this system, pursuant to South Coast Air Quality Management District Rule 1418."
- (e) Recordkeeping
- (1) Any person who conducts a discharge test pursuant to paragraph (d)(3) shall maintain records to verify compliance with the discharge test requirements of that paragraph.
 - (2) Any person who owns or operates a total flooding system shall maintain the following records if the system requires the recharging of more than 10 pounds of halon due to accidental discharge: name, address, telephone number, and signature of the owner or operator; the cause of the accidental discharge; and measures taken to prevent another occurrence.
 - (3) The records required in paragraphs (e)(1) and (e)(2) shall be maintained at the location of the total flooding system, except for records of discharge tests conducted by total flooding system manufacturers, which shall be

maintained at the testing facility. Records must be maintained for a minimum of five years and made available to District personnel upon request.

(f) Efficiency Determination

- (1) For recovery or recycling equipment or systems that are not certified pursuant to Underwriter's Laboratory Standards 2006 or 2083, whichever is applicable, the efficiency of either equipment or system shall be demonstrated by using the following calculation on three recovery or recycling trials:

$$\frac{W_2 - W_1}{W_2 - W_c} \times 100$$

Where:

W_2 = Weight of the portable fire extinguisher or total flooding system supply container and halon prior to recovery or recycling, using a scale that is accurate to the nearest ounce for portable fire extinguishers, and accurate to the nearest pound for total flooding systems.

W_1 = Weight of the portable fire extinguisher or total flooding system supply container and all residual halon immediately after recovery operation takes place, using a scale that is accurate to the nearest ounce for portable fire extinguishers and to the nearest pound for total flooding systems.

W_c = Empty weight of container assembly. For total flooding systems, use the weight stamped on the container by the manufacturer, to the nearest pound. For portable fire extinguishers, weigh the entire halon-containing assembly, to the nearest ounce, after it has been emptied.

- (2) During recovery and/or recycling operations, the receiver container, portable fire extinguisher, and the total flooding system container shall be leak-free, and no halon shall be vented from these containers or the recycling and/or recovery system.
- (3) The recovery efficiency for discharge tests specified in paragraph (d)(3) shall be determined based on the weight of halons recovered or captured

into a receiving container to the weight of halons that was released or transferred from a supply container.

(g) Exemptions

- (1) Accidental discharges from total flooding systems are exempt from the requirements of paragraph (d)(2), provided that requirements of subdivision (e) are met, and the discharge is not a result of gross negligence on the part of any person.
- (2) Manufacturers of total flooding systems used for aircraft are exempt from the requirements of paragraph (d)(4).