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CG-543 Policy Letter  
09-03

SEP 14 2009

From: Eric P. Christensen, CAPT  
COMDT (CG-543)

A handwritten signature in black ink, appearing to be "E.P. Christensen", written over the "From:" line.

To: Distribution

Subj: EXISTING ALTERNATIVE FIRE DETECTION SYSTEMS FOR SMALL  
PASSENGER VESSELS UTILIZING DC POWER

Ref: (a) G-MOC Policy Letter 4-98 (Cancelled)

1. G-MOC Policy Letter 4-98 was promulgated in July 1998 to address the lack of a Coast Guard approved fire detection system for small passenger vessels with a DC power supply as required by 46 CFR 181.400. Existing vessels were required to comply with 46 CFR 181.400 not later than March 11, 1999.
2. Policy letter 4-98 described a minimum standard for individual components that would be accepted until such time as a fire detection system was approved by the Coast Guard. Subsequently, the first DC power detection system was approved in December 1998. Later, it was realized that some OCMI's permitted the installation of "4-98 systems" as late as 2002. 4-98 was cancelled when COMDTINST M16000.7A, Marine Safety Manual Vol. II was promulgated in 2000 along with most other G-MOC policy letters preceding this date, but was not incorporated into the MSM. It was not the intent of this office to require retrofitting of any system installed in accordance with 4-98 once a detection system was type approved. However, since type approved systems are now available, 4-98 systems shall no longer be installed.
3. Marine Inspectors should ensure an inspection note is entered for each vessel equipped with one of these systems attesting to the fact that it was approved under policy letter 4-98 and the date the arrangement was approved, if known. Installations made on or after 1 January 2003 should fully comply with the applicable fire detection regulations and be equipped with an appropriate type approved system unless the OCMI determines there were special circumstances that should be considered (see paragraph 6).
4. The following paragraph (extracted from 4-98) remains valid to assist Marine Inspectors during inspections of vessels equipped with non-approved DC systems:

The general intent of type approvals for fire detection systems in 46 CFR Subpart 161.002 is to provide an automatic fire detection system consisting of normal and emergency power supplies, heat and/or smoke detectors, and distinctive audible and visual alarms. For equivalency, a 4-98 system shall at a minimum contain:

- a. Components which are listed by one of the following laboratories as meeting the applicable standard for that component:
  - (1) Underwriters Laboratories, Inc. (UL)
  - (2) Factory Mutual (FM), or
  - (3) Loss Prevention Council (LPC).
- b. A dedicated panel at the primary operating station with the following devices installed:
  - (1) A power-available light to indicate that the fire detection system is energized.
  - (2) A visible and audible alarm for each fire zone.
  - (3) A means to silence audible alarms (visible indication should remain energized when audible alarm is silenced).
  - (4) A circuit fault detector (test switch):
    - (a) For normally open circuit detectors a switch is necessary for each fire zone. The switch should be connected to the last or farthest (away from the primary operating station alarm devices) detector in the zone to verify the integrity of the wiring between the detectors and the fire alarm devices and for verifying the operation of audible and visual alarms.
    - (b) For normally closed circuit detectors only one switch is necessary to verify the operation of the audible and visual alarms.
  - (5) Label for all switches and indicator lights indicating their function.
- c. Arrangements to be energized for two sources of power. If transfer from the primary source to the secondary source is not automatic, a manual means of selecting the available power source should be provided at the primary operating station.
- d. An operation, testing, maintenance and information manual maintained on the vessel.

5. As stated in (b) (4) above, a system approved under the guidance of 4-98 may have a circuit fault detector "test switch" in lieu of constant electrical supervision. As this arrangement does not provide continuous supervision of the system, operators are to test the system prior to each voyage to ensure it is functional.

6. This policy applies to existing small passenger vessels with detection systems installed prior to December 31, 2002 and that were previously approved under G-MOC Policy Letter 4-98 as long as the systems remain serviceable. Installations or replacements made on or after January 1, 2003 should fully comply with the provisions of 46 CFR 181.400. If a system approved under the provisions of 4-98 was installed on or after January 1, 2003, the OCMI should consider and evaluate the circumstances under which it was approved when making a decision on whether to require retrofitting with a type approved system. Continued acceptance of any "4-98" existing systems shall be at the discretion of the OCMI who should consider suitability, serviceability, performance, reliability, and overall risk to the vessel. Appropriate inspection notes shall be

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entered in MISLE. All new fire detection installations shall comply with 46 CFR 181.400. This policy shall remain in effect until rescinded by this office.

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All Sectors/MSUs/MSDs)