

# MSC Guidelines for Review of Fire Detection Systems

Procedure Number: E2-9

Revision Date: 04/24/00

---

## References

- a. Title 46 CFR 76.13 (Subchapter H)
  - b. Title 46 CFR 113.10 (Subchapter J)
  - c. Title 46 CFR 118.400 (Subchapter K)
  - d. Title 46 CFR 130.470 (Subchapter L)
  - e. Title 46 CFR 161.002 (Subchapter Q) - Type Approvals
  - f. Title 46 CFR 181.400 (Subchapter T)
  - g. NFPA 72
  - h. Navigation and Inspection Circular (NVIC) 2-89, "Guide for Electrical Installations on Merchant Vessels and Mobile Offshore Drilling Units"
  - i. Safety Of Life at Sea (SOLAS), Consolidated Editions, 1997, Chapter II-2
- 

## Disclaimer

These guidelines were developed by the Marine Safety Center staff as an aid in the preparation and review of vessel plans and submissions. They were developed to supplement existing guidance. They are not intended to substitute or replace laws, regulations, or other official Coast Guard policy documents. The responsibility to demonstrate compliance with all applicable laws and regulations still rests with the plan submitter. The Coast Guard and the U. S. Department of Transportation expressly disclaim liability resulting from the use of this document.

---

## Contact Information

If you have any questions or comments concerning this document, please contact the Marine Safety Center by e-mail or phone. Please refer to the Procedure Number: **E2-9**

E-mail: [customerservicemsc@uscg.mil](mailto:customerservicemsc@uscg.mil)

Phone: 202-366-6480.

---

## General Review Guidance

Note: For T boats with Direct Current (DC) as the main source of power, an alternative standard is available. See Attachment (3) for details. Attachments (2) and (3) may be found at <http://www.uscg.mil/hq/msc/e2.htm> For all other vessels, use the requirements below.

---

# MSC Guidelines for Review of Fire Detection Systems

Procedure Number: E2-9

Revision Date: 04/24/00

---

- ❑ Ensure that the Fire Detection System is a Type Approved system. See Attachment (1) for a list of Type Approved systems. Only Systems specifically "Type Approved" by the Coast Guard (G-MSE) may be installed, even if the system is not "required."
- ❑ Verify that the engine room fire detection loop does not share a common circuit with any detectors outside of the engine room. Isolator modules can be used to isolate the engine room. Ensure the isolator module is in accordance with Type Approval.
- ❑ Verify that the main control panel and fire detection units of the system are the same part numbers as those listed in the manufacturer's "type approved" manual.
- ❑ Ensure that Fire Detectors are located in all spaces required by references. Use specific Subchapter regulations for guidance.
- ❑ Verify that ALL components of the fire detection system correspond with part numbers from the manufacturer's "type approved" manual.
- ❑ Check Power Supply. The system must have two sources of power (main/emergency). The normal feed must be from the main power source with an automatic switch to the emergency feed. If the second source is a battery, the charger must have a feed from the emergency board.
- ❑ Check cable runs for directness per CFR 113.10-3.
- ❑ Ensure that no conductor is used as a common return for more than one zone, as required by 46 CFR 113.10-7.
- ❑ Ensure connection boxes are NEMA 250 (4 or 4X) or IEC IP 56, per 46 CFR 113.10-7.
- ❑ Check the batteries for compliance with 46 CFR 111.15.
- ❑ Power supply capacity of branch circuits must not be less than 125% of the maximum load per 46 CFR 113.10-9.
- ❑ Check "List of CG Approved Fire Detection Systems," see Attachment (1) for expiration date of Type Approval.

# MSC Guidelines for Review of Fire Detection Systems

Procedure Number: E2-9

Revision Date: 04/24/00

---

## Attachments

- (1) List of USCG Approved Fire Detection Systems.
- (2) One Line Diagram of T boat pre-engineered system with notes.  
<http://www.uscg.mil/hq/msc/e2.htm>
- (3) G-MOC Policy Letter 4-98 on Alternative Fire Detection Systems for Subchapter T Vessels utilizing DC Power, dated July 17, 1998.  
<http://www.uscg.mil/hq/msc/e2.htm>

# MSC Guidelines for Review of Fire Detection Systems

Procedure Number: E2-9

Revision Date: 04/24/00

## **LIST OF USCG APPROVED FIRE DETECTION SYSTEMS**

Approval Number	Manufacturer	Model Name/Number	Expiration Date
161.002/10/0	Henschel Corp	Dwg. 55-131	09 Aug 1998
161.002/17/6	Cerberus Pyrotronics	System 3	03 Nov 2003
161.002/19/2	Ansul	Multizone 20	11 Mar 2001
161.002/21/0	Kidde	Firehold (cargo)	01 Jul 1998
161.002/22/5	Cerberus Pyrotronics	MXL	03 Sep 2003
161.002/23/1	Notifier / Firelite	Notifier AFP-200	11 Mar 2001
161.002/24/3	Securiplex	Fire-Scope 1010	31 Mar 2000
161.002/25/4	Securiplex	Fire-Scope 1120	31 Mar 2002
161.002/26/0	G.S.Building/Edwards	IRC-3	06 May 1999
161.002/27/1	Notifier / Firelite	AM-2020/AFP-101	17 Jul 2001
161.002/28/1	Ansul	Autopulse IQ-301M	11 Mar 2001
161.002/29/0	Consilium Marine	Salwico CS 3000	03 Feb 2000
161.002/30/0	Consilium Marine	Salwico CS 3004	03 Feb 2000
161.002/31/0	G.S.Building/Edwards	LSS-4/12, -4/36	10 Feb 2000
161.002/32/2	Nittan System AB	NSCC-20	03 Mar 2002
161.002/33/0	Thorn Security	Minerva T890	28 Feb 2001
161.002/34/0	Thorn Security	Minerva T891	28 Feb 2001
161.002/35/0	Autronica AS	BS-100	27 Sep 2001
161.002/37/0	Nittan System AB	NSAC-1	27 Jan 2002
161.002/38/0	Heien-Larssen AS	SDA-95 (cargo)	05 Mar 2002
161.002/39/0	Unitor Ships Service	Model SDS	08 Aug 2002
161.002/40/0	Ansul CheckFire	12-24 Volt	21 Dec 2003