



DEPARTMENT OF TRANSPORTATION
UNITED STATES COAST GUARD

Address reply to:
COMMANDANT (MMT-3)
U.S. COAST GUARD
WASHINGTON, D.C. 20591

• NVC 7-70

14 OCT 1970

NAVIGATION AND VESSEL INSPECTION CIRCULAR 7-70

Subject: Marine Type Portable Fire Extinguishers

1. Purpose. The purpose of this circular is to emphasize the importance of proper inspection and maintenance of marine type portable fire extinguishers.
2. Background. In recent months several reports have been received concerning defective marine type portable fire extinguishers. Unfortunately defects are often discovered when an extinguisher is needed the most. Routine annual inspections supplemented by monthly spot checks should uncover most defective extinguishers.
3. Discussion. The purpose of a well-planned and well-executed maintenance program is to afford maximum probability that an extinguisher:
 - a. Will operate properly between the time intervals established for maintenance examinations in the environment to which it is exposed.
 - b. Will not constitute a potential hazard to persons in its vicinity, or to operators or rechargers of extinguishers.

In this regard extinguishers should be inspected by a vessel's crew monthly or at more frequent intervals when circumstances require to ensure they are in their designated places, to ensure they have not been actuated or tampered with, and to detect any obvious physical damage, corrosion or other impairment. Any extinguisher showing defects should be given a complete maintenance check.

Particular attention should be given by the vessel's crew and Coast Guard inspectors to the inspection of extinguishers which have stainless steel shells.

Stainless steel is subject to stress corrosion cracking when exposed to corrosive environmental conditions. If stress corrosion cracking occurs and is undetected the extinguisher becomes a serious hazard. This is especially true of extinguishers that are pressurized immediately before use such as the chemical foam, soda and acid, and the cartridge operated dry chemical types. The extremely rapid build up of pressure could cause a defective shell to rupture. The attached photograph is of a stainless steel shell extinguisher that failed. Note the hair line corrosion cracks. The areas that require close inspection are the dome and the bottom under the skirt. These pieces are cold formed and subject to locked in stresses.

NAVIGATION AND VESSEL INSPECTION CIRCULAR 7-70

14 OCT 1970

4. Action. If an extinguisher fails in use a report of the failure should be transmitted by a responsible party on the vessel to a Coast Guard Officer in Charge, Marine Inspection via letter. The Officer in Charge, Marine Inspection will then transmit the failure to Coast Guard Headquarters on Coast Guard Form CG-2752(2-62) "Report of Equipment Failure on Inspected Vessel" through the appropriate channels.



W. M. BENKERT

Captain, U. S. Coast Guard

Acting Chief, Office of Merchant Marine Safety

Dist: (SDL NO. 91)

A: None

B: n(47); c(10); q(6); eg(3) bp(1)

C: mo(6); gy(1)

D: i(2); k(1)

E: o(2)

F: a(1)

List CG-12

