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the following wording: ''HAND RED FLARE DISTRESS SIGNALS''. No additional marking which might cause confusion as to the contents shall be permitted. The vessel's name ordinarily is painted or branded on equipment such as this container, and nothing in this subpart shall be construed as prohibiting same.

§ 160.021–7 Procedure for approval.

(a) Signals are approved by the Coast Guard under the procedures in subpart 159.005 of this chapter.

(b) [Reserved]

Subpart 160.022—Floating Orange Smoke Distress Signals (5 Minutes)

SOURCE: CGD 76–048a and 76–048b, 44 FR 73067, Dec. 17, 1979, unless otherwise noted.

§ 160.022–1 Incorporation by reference.

(a) The following are incorporated by reference into this subpart:

(1) ''The Color Names Dictionary'' in *Color: Universal Language and Dictionary of Names*, National Bureau of Standards Special Publication 440, December 1976.

(2) ''Development of a Laboratory Test for Evaluation of the Effectiveness of Smoke Signals,'' National Bureau of Standards Report 4792, July 1956.

(b) NBS Special Publication 440 may be obtained by ordering from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402 (Order by SD Catalog No. C13.10:440).

(c) NBS Report 4792 may be obtained from the Commandant (CG–ENG–4), U.S. Coast Guard, 2100 2nd St., SW., Stop 7126, Washington, DC 20593–7126.

(d) Approval to incorporate by reference the materials listed in this section was obtained from the Director of the Federal Register on November 1 and 29, 1979. The materials are on file in the Federal Register Library.

[CGD 76–048a and 76–048b, 44 FR 73067, Dec. 17, 1979, as amended by CGD 82–063b, 48 FR 4782, Feb. 3, 1983; CGD 88–070, 53 FR 34535, Sept. 7, 1988; CGD 95–072, 60 FR 50467, Sept. 29, 1995; CGD 96–041, 61 FR 50733, Sept. 27, 1996; USCG–2009–0702, 74 FR 49237, Sept. 25, 2009]

§ 160.022–2 Type.

(a) Floating orange smoke distress signals, specified by this subpart shall be of one type which shall consist essentially of an outer container, ballast, an air chamber, an inner container, the smoke producing composition, and an igniter mechanism. Alternate arrangements which conform to the performance requirements of this specification will be given special consideration.

(b) [Reserved]

§ 160.022–3 Materials, workmanship, construction, and performance requirements.

(a) *Materials.* The materials shall conform strictly to the specifications and drawings submitted by the manufacturer and approved by the Commandant. Metal for containers shall be not less than 0.5 mm (0.020 in.) in thickness. Other dimensions or materials may be considered upon special request when presented with supporting data. Igniter systems shall be corrosion-resistant metal. The combustible material shall be of such nature that it will not deteriorate during long storage, nor when subjected to frigid or tropical climates, or both.

(b) *Workmanship.* Floating orange smoke distress signals shall be of first class workmanship and shall be free from imperfections of manufacture affecting their appearance or that may affect their serviceability.

(c) *Construction.* The outer container shall be of a size suitable for its intended use. All sheet metal seams should be hook-jointed and soldered. The whole container shall be covered with two coats of waterproof paint or equivalent protection system. The igniter mechanism shall be simple to operate and provide ignition in most unfavorable weather. The mechanism shall be protected with a watertight cover having a finish which is corrosion-resistant to salt water and spray. The cover shall be easily and quickly removable by hand without the use of tools. If attachment of the cover is by formed screw threads, it shall be of such construction or material to prevent rusting or corrosion and will not back off and loosen under shipboard vibration.

(d) *Performance.* Signals shall meet all the inspection and test requirements contained in §160.022–4.

§160.022–4 Approval and production tests.

(a) *Approval tests.* The manufacturer must produce a lot of at least 100 signals from which samples must be taken for testing for approval under §160.022–7. The approval tests are the operational tests and technical tests in paragraphs (c) and (d) of this section. The approval tests must be conducted by an independent laboratory accepted by the Commandant under §159.010 of this chapter.

(b) *Production inspections and tests.* Production inspections and tests of each lot of signals produced must be conducted under the procedures in §159.007 of this chapter. Signals from a rejected lot must not be represented as meeting this subpart or as being approved by the Coast Guard. If the manufacturer identifies the cause of the rejection of a lot of signals, the signals in the lot may be reworked by the manufacturer to correct the problem. Samples from the rejected lot must be retested in order to be accepted. Records shall be kept of the reasons for rejection, the reworking performed on the rejected lot, and the results of the second test.

(1) *Lot size.* For the purposes of sampling the production of signals, a lot must consist of not more than 30,000 signals. Lots must be numbered serially by the manufacturer. A new lot must be started with:

(i) Any change in construction details,

(ii) Any change in sources of raw materials, or

(iii) The start of production on a new production line or on a previously discontinued production line.

(2) *Inspections and tests by the manufacturer.* The manufacturer's quality control procedures must include inspection of materials entering into construction of the signals and inspection of the finished signals, to determine that signals are being produced in accordance with the approved plans. Samples from each lot must be tested in accordance with the operational tests in paragraph (c) of this section.

(3) *Inspections and tests by an independent laboratory.* An independent laboratory accepted by the Commandant under §159.010 of this chapter must perform or supervise the inspections and tests under paragraph (b)(2) of this section at least 4 times a year, unless the number of lots produced in a year is less than four. The inspections and tests must occur at least once during each quarterly period, unless no lots are produced during that period. If less than four lots are produced, the laboratory must perform or supervise the inspection and testing of each lot. In addition, the laboratory must perform or supervise the technical tests in paragraph (d) of this section at least once for every ten lots of signals produced, except that the number of technical tests must be at least one but not more than four per year. If a lot of signals tested by the independent laboratory is rejected, the laboratory must perform or supervise the inspections and tests of the reworked lot and the next lot of signals produced. The tests of each reworked lot and the next lot of signals must not be counted for the purpose of meeting the requirement for the annual number of inspections and tests performed or supervised by the independent laboratory.

(c) *Operational tests.* Each lot of signals must be sampled and tested as follows:

(1) *Sampling procedure and accept/reject criteria.* A sample of signals must be selected at random from the lot. The size of the sample must be the individual sample size in Table 160.022–4(c)(1) corresponding to the lot size. Each signal in the sample is tested as prescribed in the test procedure in paragraph (c)(2) of this section. Each signal that has a defect listed in the table of defects (Table 160.022–4(c)(2)) is assigned a score (failure percent) in accordance with that table. In the case of multiple defects, only the score having the highest numerical value is assigned to that signal. If the sum of all the failure percents (cumulative failure percent) for the number of units in the sample is less than or equal to the accept criterion, the lot is accepted. If this sum is equal to or more than the reject criterion the lot is rejected. If