tested shall be measured by a visual photometer or equivalent photometric device while the specimen is supported in a horizontal position and the photometer is at right angles to the axis of the specimen. Visual luminous intensity readings shall be observed and recorded at approximately 5-second intervals during the burning of the specimen. The minimum photometric distance shall be 3 m (10 ft.). Recording photometers shall have a chart speed of at least 10 cm (4 in.) per minute. The luminous intensity of the specimen shall be computed as the arithmetical average of the readings recorded. The average luminous intensity of a specimen shall be not less than 20,000 candela.

(2) Elevated temperature, humidity, and storage. Place specimen in a thermostatically controlled even-temperature oven held at 75°C with not less than 90 percent relative humidity for 72 hours. Remove specimen and store at room temperature (20° to 25°C) with approximately 65 percent relative humidity for ten days. If for any reason it is not possible to operate the oven continuously for the 72-hour period, it may be operated at the required temperature and humidity for 8 hours out of each 24 during the 72-hour conditioning period. (Total of 24 hours on and 48 hours off.) The signal shall not ignite or decompose during this conditioning. The signal shall fire and operate satisfactorily following this conditioning.

(3) Spontaneous ignition. Place the specimen in a thermostatically controlled even-temperature oven held at 75°C with not more than 10% relative humidity for 48 consecutive hours. The signal shall not ignite or undergo marked decomposition.

(4) Chromaticity. The color of the burning signal must be vivid red as defined by Sections 13 and 14 of the "Color Names Dictionary." Two identical test plates of white cardboard about 30 cm × 60 cm (12"×24") are used. Except for a negligible amount of stray daylight, the first test plate is illuminated by light from the specimen placed at a distance of about 1.5 m (5 ft.). The second test plate is illuminated only by light from an incandescent lamp operated at a color temperature close to 2,848° K at a distance of about 30 cm (1 ft.). The first plate is viewed directly, the second through combinations of Lovibond red, yellow, and blue glasses selected so as to approximate a chromaticity match. By separating the test plates by a wide unilluminated area (subtending at the observer about 45°), it is possible to make accurate determinations of chromaticity in terms of the 1931 CIE Standard Observer and Coordinate System, in spite of fluctuations in luminous intensity of the specimen by factors as high as 2 or 3. The CIE coordinates are converted to the Munsell notation which is cross-referenced to the color name in Section 13 of the "Color Names Dictionary" (see the discussion in Section 10 of "The Universal Color Language").

§ 160.036–5 Marking.

(a) General. Each hand-held rocket-propelled parachute red flare distress signal shall be legibly marked or labeled as follows:

(Company brand or style designation) HAND-HELLED ROCKET-PROPELLED PARACHUTE RED FLARE DISTRESS SIGNAL—20,000 candela—30 seconds burning time. USE ONLY WHEN AIRCRAFT OR VESSEL IS SIGHTED. DIRECTIONS—(In numbered paragraphs, simply worded instructions for firing the device). Service Life Expiration Date (date to be inserted by manufacturer) (Month and year manufactured) (Lot No. ___) Manufactured by (Name and address of manufacturer) U.S. Coast Guard Approval No. ____

(b) Marking of expiration date. The expiration date must not be more than 42 months from the date of manufacture.

(c) Other marking. (1) On each hand-held rocket propelled parachute red flare distress signal there shall be die-stamped in figures not less than 3 mm (¼ in.) high, on the signal, numbers indicating the month and year of manufacture, thus: “6-54” indicating June, 1954.

(2) The pyrotechnic candle shall be legibly marked with the month and year of manufacture.

(3) In addition to any other marking place on the smallest packing carton or box containing signals, each carton or box shall be plainly and permanently
§ 160.036–6 Container.

(a) General. The container for storing the signals on lifeboats and liferafts is not required to be of a special design or be approved by the Coast Guard. The container must meet the requirements in Subpart 160.021 (§ 160.021–6) except that the wording on the container must be:

**HAND-HELD ROCKET-PROPELLED PARACHUTE**
**RED FLARE DISTRESS SIGNALS**

(b) [Reserved]

§ 160.036–7 Procedure for approval.

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

(b) [Reserved]