

## § 161.012-17

(3) Instructions on how to activate the light.

(b) The power source of each light must be permanently and legibly marked with its date of manufacture and expiration date. Each date must include the month and year.

### § 161.012-17 Instructions.

(a) Each light must have instructions on how to attach it to a PFD in a manner that complies with §161.012-7(a). However, in the case of lights that are to be attached by a PFD manufacturer, only one set of instructions need be provided for each shipment of lights.

(b) If a light is designed to be attached to a finished PFD, any attachment materials that are not supplied with the light must be clearly identified in the instructions. If a light is to be attached to a finished PFD by a PFD purchaser, any attachment materials not supplied with the light must be generally available for purchase.

(c) Each set of instructions must—(1) Clearly identify the kind of PFD construction (for example fabric covered or vinyl dipped) to which the light can be attached; and

(2) Not require penetration of the buoyant material of the PFD.

[CGD 76-028, 44 FR 38785, July 2, 1979, as amended by USCG-2014-0688, 79 FR 58286, Sept. 29, 2014]

## Subpart 161.013—Electric Distress Light for Boats

SOURCE: CGD 76-183a, 44 FR 73054, Dec. 17, 1979, unless otherwise noted.

### § 161.013-1 Applicability.

(a) This subpart establishes standards for electric distress lights for boats.

(b) [Reserved]

### § 161.013-3 General performance requirements.

(a) Each electric light must:

(1) Emit a white light which meets the intensity requirements of §161.013-5;

(2) Be capable of automatic signaling in a manner which meets the requirements of §161.013-7;

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(3) Contain an independent power source which meets the requirements of §161.013-9;

(4) Float in fresh water with the lens surface at or above the surface of the water;

(5) Be equipped with a waterproof switch; and

(6) Meet the requirement of paragraphs (a) (1) through (4) of this section after floating for at least 72 hours followed by submersion in 5% by weight sodium chloride solution for at least 2 hours.

(b) The electric light may not be equipped with a switch mechanism which permits continuous display of a beam of light except that the light may be equipped with a switch which returns to the off position when pressure is released.

### § 161.013-5 Intensity requirements.

(a) If an electric light emits light over an arc of the horizon of 360 degrees, the light must:

(1) When level, have a peak intensity within 0.1 degrees of the horizontal plane;

(2) Have a peak Equivalent Fixed Intensity of at least 75 cd; and,

(3) Have a minimum Equivalent Fixed Intensity within a vertical divergence of  $\pm 3$  degrees of at least 15 cd.

(b) If an electric light emits a directional beam of light, the light must:

(1) Have an Equivalent Fixed Intensity of no less than 25 cd within  $\pm 4$  degrees vertical and  $\pm 4$  degrees horizontal divergence centered about the peak intensity; and,

(2) Have a minimum peak Equivalent Fixed Intensity of 2,500 cd.

(c) The Equivalent Fixed Intensity (EFI) is the intensity of the light corrected for the length of the flash and is determined by the formula:

$$EFI = I \times (t_c - t_i) / 0.2 + (t_c - t_i)$$

Where:

I is the measured intensity of the fixed beam,

$t_c$  is the contact closure time in seconds, (0.33 for this S-O-S signal), and

$t_i$  is the incandescence time of the lamp in seconds.

(d) An electric light which meets the requirements of either paragraph (a) or (b) of this section need not, if capable