

§ 160.151-11 Approval procedure.

(a) A manufacturer seeking approval of an inflatable liferaft must comply with the procedures in part 159, subpart 159.005, of this chapter and in this section.

(b) A manufacturer seeking approval of an inflatable liferaft must submit an application meeting the requirements of § 159.005-5 of this chapter for preapproval review. To meet the requirements of § 159.005-5(a)(2) of this chapter, the manufacturer shall submit—

- (1) General-arrangement drawing including principal dimensions;
- (2) Seating-arrangement plan;
- (3) Plans for subassemblies;
- (4) Plans for carriage and, in detail, stowage of equipment;
- (5) Plans for the inflation system;
- (6) Plans for the outer container;
- (7) Plans for any lifting shackle or ring, including diameter in cross-section, used for connecting the suspension tackle of a davit-launched inflatable liferaft to the automatic disengaging device used for its hoisting and lowering;
- (8) Other drawing(s) necessary to show that the inflatable liferaft complies with the requirements of this subpart;
- (9) Description of methods of seam and joint construction;
- (10) Samples and identification of each material used in the buoyancy chambers, floor, and canopy, including the identity of their manufacturers, and segments of each type of seam made from such materials; and
- (11) Complete data pertinent to the installation and use of the proposed inflatable liferaft, including the maximum proposed height of its installation above the water, and the maximum length of the sea painter installed in the inflatable liferaft.

§ 160.151-13 Fabrication of prototype inflatable liferafts for approval.

If the manufacturer is notified that the information submitted in accordance with § 160.151-11 is satisfactory to the Commandant, fabrication of a prototype inflatable liferaft must proceed in the following sequence:

(a) The manufacturer shall arrange for an independent laboratory to in-

spect the liferaft during its fabrication and prepare an inspection report meeting the requirements of § 159.005-11 of this chapter. The independent laboratory shall conduct at least one inspection during layup of the buoyancy tubes of the liferaft, at least one inspection of the finished liferaft when fully inflated, and as many other inspections as are necessary to determine that the liferaft—

(1) Is constructed by the methods and with the materials specified in the plans;

(2) Passes the applicable inspections and tests required by § 160.151-31; and

(3) Conforms with the manufacturer's plans.

(b) The manufacturer shall submit the independent laboratory's inspection report to the Commandant for review.

(c) If, after review of the inspection report of the independent laboratory, the Commandant notifies the manufacturer that the liferaft is in compliance with the requirements of this subpart, the manufacturer may proceed with the approval tests required under §§ 160.151-27 and 160.151-29.

(d) The manufacturer shall notify the cognizant OCMI of where the approval tests required under §§ 160.151-27 and 160.151-29 will take place and arrange with the OCMI a testing schedule that allows for a Coast Guard inspector to travel to the site where the testing is to be performed.

(e) The manufacturer shall admit the Coast Guard inspector to any place where work or testing is performed on inflatable liferafts or their component parts and materials for the purpose of—

(1) Assuring that the quality-assurance program of the manufacturer is satisfactory;

(2) Witnessing tests; and

(3) Taking samples of parts or materials for additional inspections or tests.

(f) The manufacturer shall make available to the Coast Guard inspector the affidavits or invoices from the suppliers of all essential materials used in the production of inflatable liferafts, together with records identifying the lot numbers of the liferafts in which such materials were used.

(g) On conclusion of the approval testing, the manufacturer shall comply with the requirements of §159.005-9(a)(5) of this chapter by submitting the following to the Commandant:

(1) The report of the prototype testing prepared by the manufacturer. The report must include a signed statement by the Coast Guard inspector who witnessed the testing, indicating that the report accurately describes the testing and its results.

(2) The final plans of the liferaft as built. The plans must include—

(i) The servicing manual described in § 160.151-37;

(ii) The instructions for training and maintenance described in §§ 160.151-59 and 160.151-61, respectively;

(iii) The final version of the plans required under § 160.151-11(b), including—

(A) Each correction, change, or addition made during the construction and approval testing of prototypes;

(B) Sufficient detail to determine that each requirement of this subpart is met;

(C) Fabrication details for the inflatable liferaft, including details of the method of making seams and joints; and

(D) Full details of the inflation system.

(3) A description of the quality-control procedures that will apply to the production of the inflatable liferaft. These must include—

(i) The system for checking material certifications received from suppliers;

(ii) The method for controlling the inventory of materials;

(iii) The method for checking quality of seams and joints; and

(iv) The inspection checklists used during various stages of fabrication to assure that the approved liferaft complies with the approved plans and the requirements of this subpart.

[CGD 85-205, 62 FR 25547, May 9, 1997; 62 FR 35392, July 1, 1997]

§ 160.151-15 Design and performance of inflatable liferafts.

To satisfy the requirements of the regulations of SOLAS indicated in § 160.151-7, each inflatable liferaft must meet the following requirements of this section:

(a) *Workmanship and materials (Regulation III/30.2.1)*. Each liferaft must be constructed of the following types of materials meeting MIL-C-17415E, or materials accepted by the Commandant as equivalent or superior—

(1) Type 2, Class B, for the canopy;

(2) Type 8 for seam tape;

(3) Type 11 for the inflatable floor; and

(4) Type 16, Class AA, for all other inflatable compartments and structural components.

(b) *Seams (Regulation III/30.2.1)*. Each seam must be at least as strong as the weakest of the materials joined by the seam. Each seam must be covered with tape where necessary to prevent lifting of and damage to fabric edges.

(c) *Protection from cold inflation-gas (Regulation III/30.2.1)*. Each inflatable compartment must be provided with a protective liner or baffling arrangement at the inflation-gas inlet, or other equally effective means to prevent damage from exposure to cold inflation-gas.

(d) *Compatibility of dissimilar materials (Regulation III/30.2.4)*. Where dissimilar materials are combined in the construction of a liferaft, provisions must be made to prevent loosening or tightening due to differences in thermal expansion, freezing, buckling, galvanic corrosion, or other incompatibilities.

(e) *Color (Regulation III/30.2.6)*. The primary color of the exterior of the canopy must be vivid reddish orange (color number 34 of NBS Special Publication 440), or a fluorescent color of a similar hue.

(f) *Retroreflective material (Regulation III/30.2.7)*. Each inflatable liferaft must be marked with Type I retroreflective material approved under part 164, subpart 164.018, of this chapter as complying with SOLAS. The arrangement of the retroreflective material must comply with IMO Resolution A.658(16).

(g) *Towing attachments (Regulation III/38.1.4)*. Each towing attachment must be reinforced strongly enough to withstand the towing strain, and marked to indicate its function.

(h) *Weight (Regulation III/38.2.2)*. The weight of the liferaft including its container and equipment may not exceed 185 kg (407.8 lb), unless the liferaft is intended for launching into the water