§ 177.100 General requirement.

The construction and arrangement of a vessel must allow the safe operation of the vessel in accordance with the terms of its Certificate of Inspection, giving consideration to provisions for a seaworthy hull, protection against fire, means of escape in case of a sudden unexpected casualty, guards and rails in hazardous places, ventilation of enclosed spaces, and necessary facilities for passengers and crew.

Source: CGD 85–080, 61 FR 961, Jan. 10, 1996, unless otherwise noted.

Subpart A—General Provisions

§ 177.115 Applicability to existing vessels.

(a) Except as otherwise required by paragraph (b) of this section, an existing vessel must comply with the construction and arrangement regulations that were applicable to the vessel on March 10, 1996, or, as an alternative, the vessel may comply with the regulations in this part.

(b) Alterations, or modifications made to the structure or arrangements of an existing vessel, that are a major conversion, on or after March 11, 1996, must comply with the regulations of this part. Repairs or maintenance conducted on an existing vessel, resulting in no significant changes to the original structure or arrangement of the vessel, must comply with the regulations applicable to the vessel on March 10, 1996, or, as an alternative, with the regulations in this part. However, when outfit items such as furnishings and mattresses are renewed, they must comply with the regulations in this part.

Subpart B—Plans

§ 177.202 Plans and information required.

(a) Except as provided in paragraph (c) of this section and §177.210 of this part, the owner of a vessel requesting initial inspection for certification shall, prior to the start of construction unless otherwise allowed by the cognizant Officer in Charge, Marine Inspection (OCMI), submit for approval to the cognizant OCMI, at least two copies of the following plans:

(1) Outboard profile;
(2) Inboard profile; and
(3) Arrangement of decks.

(b) In addition, the owner shall, prior to receiving a Certificate of Inspection, submit for approval to the cognizant OCMI, at least two copies of the following plans, manuals, analyses, and calculations that are applicable to the vessel as determined by the OCMI:

(1) Midship section;
(2) Survival craft embarkation stations;
(3) Machinery installation, including but not limited to:
   (i) Propulsion and propulsion control, including shaft details;
   (ii) Steering and steering control, including rudder details;
   (iii) Ventilation diagrams; and
   (iv) Engine exhaust diagram;
(4) Electrical installation including, but not limited to:
   (i) Elementary one-line diagram of the power system;
   (ii) Cable lists;
   (iii) Bills of materials;
   (iv) Type and size of generators and prime movers;
   (v) Type and size of generator cables, bus-tie cables, feeders, and branch circuit cables;
   (vi) Power, lighting, and interior communication panelboards with number of circuits and rating of energy consuming devices;
   (vii) Type of capacity of storage batteries;
   (viii) Rating of circuit breakers and switches, interrupting capacity of circuit breakers, and rating and setting of overcurrent devices; and
   (ix) Electrical plant load analysis.
(5) Lifesaving equipment locations and installation;
(6) Fire protection equipment installation including, but not limited to:
   (i) Fire main system plans and calculations;
   (ii) Fixed gas fire extinguishing system plans and calculations;
(iii) Fire detecting system and smoke detecting system plans;
(iv) Sprinkler system diagram and calculations; and
(v) Portable fire extinguisher types, sizes and locations;
(7) Fuel tanks;
(8) Piping systems including: bilge, ballast, hydraulic, sanitary, compressed air, combustible and flammable liquids, vents, soundings, and overflows;
(9) Hull penetrations and shell connections;
(10) Marine sanitation device model number, approval number, connecting wiring and piping; and
(11) Lines and offsets, curves of form, cross curves of stability, and tank capacities including size and location on vessel; and
(12) On sailing vessels:
(i) Masts, including integration into the ship’s structure; and
(ii) Rigging plan showing sail areas and centers of effort as well as the arrangement, dimensions, and connections of the standing rigging.

(c) For a vessel of not more than 19.8 meters (65 feet) in length, the owner may submit specifications, sketches, photographs, line drawings or written descriptions instead of any of the required drawings, provided the required information is adequately detailed and acceptable to the cognizant OCMI.

(d) An owner may submit any plans, manuals, or calculations, required to be submitted to the OCMI under this part, to the Commanding Officer, U.S. Coast Guard Marine Safety Center, 2100 2nd St., SW., Stop 7102, Washington, DC 20593–7102. Three copies of all documents are required to be submitted for Marine Safety Center plan approval.

(e) For a vessel, the construction of which was begun prior to approval of the plans and information required by paragraphs (a) and (b) of this section, the cognizant OCMI may require any additional plans and information, manufacturers’ certifications of construction, testing including reasonable destructive testing, and inspections, which the OCMI determines are necessary to verify that the vessel complies with the requirements of this subchapter.

§ 177.210 Plans for sister vessels.

(a) Plans are not required for a vessel that is a sister vessel, provided:
(1) Approved plans for the original vessel are on file at the Marine Safety Center or in the files of the cognizant OCMI;
(2) The owner of the plans authorizes their use for the new construction of the sister vessel;
(3) The regulations used for the original plan approval have not changed since the original approval; and
(4) There are no major modifications to any of the systems to be used.

(b) If approved plans for the original vessel are not on file at the MSC or with the cognizant OCMI, the vessel owner shall submit plans as described in §177.202 of this part.

Subpart C—Hull Structure

§ 177.300 Structural design.

Except as otherwise allowed by this subpart, a vessel must comply with the structural design requirements of one of the standards listed below for the hull material of the vessel.

(a) Wooden hull vessels: Lloyd’s Yachts and Small Craft (incorporated by reference, see 46 CFR 175.600);

(b) Steel hull vessels:
(1) Lloyd’s Yachts and Small Craft;
or
(2) ABS Steel Vessel Rules (< 61 Meters)(incorporated by reference, see 46 CFR 175.600);

(c) Fiber reinforced plastic vessels:
(1) Lloyd’s Yachts and Small Craft;
(2) ABS Plastic Vessel Rules (incorporated by reference, see 46 CFR 175.600); or
(3) ABS High Speed Craft (incorporated by reference, see 46 CFR 175.600);

(d) Aluminum hull vessels:
(1) Lloyd’s Yachts and Small Craft;
or