

(b) Drawings of alterations shall be approved before work is started unless deemed unnecessary by the Officer in Charge, Marine Inspection.

(c) Drawings will not be required for repairs in kind.

(d) Notice is not required for repairs or alterations to scientific equipment where the stability or safety of the vessel with regard to the hull and machinery or equipment is not affected.

§ 189.45-5 Inspection required.

(a) An inspection, either general or partial depending upon the circumstances, shall be made whenever any important repairs or alterations are undertaken.

Subpart 189.50—Special Operating Requirements

§ 189.50-1 Inspection and testing required when making alterations, repairs, or other such operations involving riveting, welding, burning, or like fire-producing actions.

(a) The provisions of "Standard for the Control of Gas Hazards on Vessels To Be Repaired," NFPA No. 306, published by National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02269, shall be used as a guide in conducting the inspections and issuance of certificates required by this section.

(b) Until an inspection has been made to determine that such operation can be undertaken with safety, no alterations, repairs, or other such operations involving riveting, burning, welding, or like fire-producing actions shall be made:

(1) Within or on the boundaries of tanks which have been used to carry combustible liquids or chemicals; or,

(2) Within spaces adjacent to tanks which have been used to carry Grade D combustible liquids, except where the distance between such tanks and the work to be performed is not less than twenty-five (25) feet; or,

(3) Within or on the boundaries of fuel tanks; or,

(4) Within or on the boundaries of tanks carrying Grade B or Grade C flammable liquids or within spaces adjacent to such tanks; or,

(5) To pipelines, heat coils, pumps, fittings, or other appurtenances connected to such fuel tanks.

(c) Such inspections shall be made and evidenced as follows:

(1) In ports or places in the United States or its territories and possessions the inspection shall be made by a marine chemist certificated by the National Fire Protection Association; however, if the services of such certified marine chemist are not reasonably available, the Officer in Charge, Marine Inspection, upon the recommendation of the vessel owner and his contractor or their representative shall select a person who, in the case of an individual vessel, shall be authorized to make such inspection. If the inspection indicates that such operations can be undertaken with safety, a certificate setting forth the fact in writing and qualified as may be required, shall be issued by the certified marine chemist or the authorized person before the work is started. Such qualifications shall include any requirements as may be deemed necessary to maintain, insofar as can reasonably be done, the safe conditions in the spaces certified throughout the operation and shall include such additional tests and certifications as considered required. Such qualifications and requirements shall include precautions necessary to eliminate or minimize hazards that may be present from protective coatings or residues from cargoes.

(2) When not in such a port or place, and a marine chemist or such person authorized by the Officer in Charge, Marine Inspection, is not reasonably available, the inspection shall be made by the senior officer in the crew present and a proper entry shall be made in the vessel's logbook.

(d) It shall be the responsibility of the senior officer present to secure copies of certificates issued by the certified marine chemist or such person authorized by the Officer in Charge, Marine Inspection. It shall be the responsibility of the senior officer in the crew present, insofar as the persons under his control are concerned, to maintain a safe condition on the vessel by full observance of all qualifications

and requirements listed by the marine chemist in the certificate.

[CGFR 67-83, 33 FR 1118, Jan. 27, 1968, as amended by CGD 95-072, 60 FR 50469, Sept. 29, 1995]

Subpart 189.55—Plan Approval

§ 189.55-1 General.

(a) The following list of required plans in §189.55-5 is general in character, but includes all plans which normally show construction and safety features coming under the cognizance of the Coast Guard. In the case of a particular vessel, all of the plans enumerated may not be applicable and it is intended that only those plans and specifications be submitted as will clearly show the vessel's arrangements, construction and required equipment.

(b) In the following list of required plans in §189.55-5, the items which must be approved by the American Bureau of Shipping for vessels classed by that organization are indicated by an asterisk. When prints bearing record of such approval by the American Bureau of Shipping are forwarded to the Coast Guard they will in general be accepted as satisfactory except insofar as the law or the Coast Guard regulations contain requirements which are not covered by the American Bureau of Shipping.

§ 189.55-5 Plans and specifications required for new construction.

(a) *General.* (1) Specifications.

(2) General arrangement plan of decks, holds, inner bottoms, etc., and including inboard and outboard profile.

(b) *Hull structure.*¹ (1) *Inner bottom plating and framing.

(2) *Midship section.

(3) *Shell plating and framing.

(4) *Stem, stern frame, and rudder.

(5) *Structural deck plans for strength decks.

(6) *Pillars and girders.

(7) *Watertight and oiltight bulkheads.

(8) *Foundations for main machinery and boilers.

¹The asterisk (*) indicates items which may require approval by the American Bureau of Shipping for vessels classed by that society.

(9) *Arrangement of ports, doors, and airports in shell plating.

(10) *Hatch coamings and covers in weather and watertight decks.

(11) *Details of hinged subdivision watertight doors and operating gear.

(12) *Scuppers and drains penetrating shell plating.

(13) Weight handling gear when required by the Officer in Charge, Marine Inspection, as provided for by §189.35-9.

(c) *Subdivision and stability.* Plans required by part 170 of this chapter.

(d) *Fire control.* (1) General arrangement plans showing for each deck the control stations, the various fire sections enclosed by fire resisting bulkheads, the arrangement of the alarm and extinguishing systems, the fire extinguishers, means of access to different compartments and decks and the ventilation system including location of ventilation shutdowns, positions of dampers and the number identifying each system.

(2) Ventilation diagram including dampers and other fire control features.

(3) Details of alarm systems.

(4) Details of extinguishing systems, including fire mains, carbon dioxide, foam and sprinkling systems.

(e) *Marine engineering.* For plans required for marine engineering equipment and systems. See Subchapter F (Marine Engineering) of this chapter.

(f) *Electrical engineering.* For plans required for electrical engineering, equipment, and systems, see Subchapter J (Electrical Engineering) of this chapter.

(g) *Lifesaving equipment.* These plans are to show the location and arrangement of embarkation decks, all overboard discharges and projections in way of launching lifeboats, weights of lifeboats fully equipped and loaded, working loads of davits and winches, types and sizes of falls, the manufacturer's name and identification for all equipment, and all other relevant and necessary information.

(1) Arrangement of lifeboats.

(2) Arrangement of davits.

(3) Location and stowage of liferafts and buoyant apparatus.

(h) *Accommodations for crewmembers and scientific personnel.* Arrangement