- (iii) Adequate visibility when going astern.
- (8) Multiple-screw propulsion with independent control of propulsion from the pilothouse, complying with §130.120 of this part and being capable of steering the vessel.
- (9) Dual hydraulic cylinders arranged so that either cylinder can be readily isolated, permitting the other cylinder to remain in service and move each rudder.
- (10) The steering alarms and indicators required by §58.25-25 of this chapter, located in the pilothouse.
- (11) Instantaneous protection against short circuit for electrical power, and control circuits sized and located as required by §§58.25–55 (d) and (e) of this chapter.
- (12) A rudder-angle indicator, at the steering-control station in the pilothouse, that is independent of the control of the main steering gear.
- (13) Means to locally start and stop the steering pumps.
- (14) Means to isolate any auxiliary means of steering so as not to impair the reliability and availability of the control required by paragraph (b)(7) of this section.
- (15) Manual capability to center and steady the rudder if the vessel loses normal steering power.
- (c) For compliance with paragraph (b) of this section, a common piping system for pumps, helm, and cylinders is acceptable.

Subpart B—Miscellaneous Equipment and Systems

§ 130.210 Radiotelegraph and radiotelephone.

Each vessel must comply with 47 CFR part 80 as applicable.

§ 130.220 Design of equipment for cooking and heating.

- (a) Doors on each cooking appliance must be provided with heavy-duty hinges and locking-devices to prevent accidental opening in heavy weather.
- (b) Each cooking appliance must be installed so as to prevent its movement in heavy weather.
- (c) Each grill or similar cooking appliance must have means to collect

grease or fat and to prevent its spillage onto wiring or the deck.

- (d) On each cooking appliance, grab rails must be installed when determined by the cognizant OCMI to be necessary for safety.
- (e) On each cooking appliance, sea rails, with suitable barriers to prevent accidental movement of cooking pots, must be installed.
- (f) Each heater must be constructed and installed so as to prevent the hanging from it of items such as towels and clothing.

§ 130.230 Protection from refrigerants.

- (a) For each refrigeration system that exceeds 0.6 cubic meters (20 cubic feet) of storage capacity if using ammonia or other hazardous gas, or exceeds 28.3 cubic meters (1,000 cubic feet) of storage capacity if using a fluorocarbon, as a refrigerant, there must be available one pressure-demand, opencircuit, self-contained breathing apparatus, approved by the National Institute for Occupational Safety and Health (NIOSH) and having at a minimum a 30-minute air supply, and a full facepiece.
- (b) Each self-contained breathing apparatus must be stowed convenient to, but outside, the space containing the refrigeration equipment.
- (c) A complete recharge in the form of a spare charge must be carried for each self-contained breathing apparatus. The spare charge must be stowed with the equipment it is to reactivate.
- (d) The self-contained breathing apparatus in a fireman's outfit, if fitted, complies with this section.

§ 130.240 Anchors and chains for OSVs of 100 or more gross tons.

- (a) Each OSV of 100 or more gross tons must be fitted with anchors and chains meeting the applicable standards set by the ABS for classed vessels, including equipment, except as permitted by paragraphs (b) and (c) of this section.
- (b) As well as the standards incorporated by paragraph (a) of this section, each vessel of under 61 meters (200 feet) in length and with an equipment number from the ABS of less than 150 may be equipped with either—

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- (1) One anchor of the tabular weight and one-half the tabulated length of anchor chain listed in the applicable standard; or
- (2) Two anchors of one-half the tabular weight with the total length of anchor chain listed in the applicable standard, if both anchors are ready for use at any time and if the windlass is capable of heaving in either anchor.
- (c) Standards of classification societies other than the ABS may be used, upon approval of the Commandant.

§ 130.250 Mooring and towing equipment for OSVs of less than 100 gross tons.

Each OSV of less than 100 gross tons must be fitted with mooring and towing equipment meeting the applicable requirements for small passenger vessels in §184.300 of this chapter.

Subpart C—Navigational Equipment

§130.310 Radar.

Each vessel of 100 or more gross tons must be fitted with a general marine radar in the pilothouse.

§ 130.320 Electronic position-fixing device.

Each vessel must be equipped with an electronic position-fixing device satisfactory for the area in which the vessel operates.

§ 130.330 Charts and nautical publications.

- (a) Except as provided by paragraph (b) or (c) of this section, as appropriate for the intended voyage, each vessel must carry adequate and up-to-date—
- (1) Charts of large enough scale to make safe navigation possible;
- (2) U.S. Coast Pilot or similar publication;
 - (3) Coast Guard Light List;
- (4) Tide Tables published by the National Ocean Service;
- (5) Local Notice or Notices to Mariners; and
- (6) Current Tables published by the National Ocean Service, or a river-current publication issued by the U.S. Army Corps of Engineers or by a river authority, or both.

- (b) Any vessel may carry, instead of the complete publications listed in paragraph (a) of this section, extracts from them for areas it will transit.
- (c) When operating in foreign waters, a vessel may carry an appropriate foreign equivalent of any item required by paragraph (a) of this section.

§ 130.340 Compass.

Each vessel must be fitted with a compass suitable for the intended service of the vessel. Except aboard a vessel limited to daytime operation, the compass must be illuminated.

Subpart D—Automation of Unattended Machinery Spaces

§130.400 Applicability.

This subpart applies to each vessel of 100 or more gross tons where automated systems either replace specific personnel in the control and observation of the propulsion system and machinery spaces or reduce the level of crew associated with the vessel's engine department.

§130.410 General.

- (a) Arrangements must be such that under any operating condition, including maneuvering, the safety of the vessel is equivalent to that of the same vessel with the machinery spaces fully tended and under direct manual supervision.
- (b) Acceptance by the Coast Guard of automated systems to replace specific crew members or to reduce overall requirements for crew members depends upon the—
- (1) Capabilities of the automated system:
- (2) Combination of crew members, equipment, and systems necessary to ensure the safety of the vessel, personnel, and environment in each operating condition, including maneuvering; and
- (3) Ability of the crew members to perform each operational evolution, including to cope with emergencies such as fire and failure of control or monitoring systems.