

when operating on the Great Lakes and their connecting and tributary waters.

(t) At least two of the steering-gear power units on the vessel are in operation when such units are capable of simultaneous operation, except when the vessel is sailing on the Great Lakes and their connecting and tributary waters, and except as required by paragraph (u) of this section.

(u) On each passenger vessel meeting the requirements of the International Convention for the Safety of Life at Sea, 1960 (SOLAS 60) and on each cargo vessel meeting the requirements of SOLAS 74 as amended in 1981, the number of steering-gear power units necessary to move the rudder from 35° on either side to 30° on the other in not more than 28 seconds must be in simultaneous operation.

[CGD 74-77, 42 FR 5956, Jan. 31, 1977, as amended by CGD 83-004, 49 FR 43466, Oct. 29, 1984; CGD 91-203, 58 FR 27633, May 10, 1993; CGD 83-043, 60 FR 24771, May 10, 1995]

#### § 164.13 Navigation underway: tankers.

(a) As used in this section, "tanker" means a self-propelled tank vessel, including integrated tug barge combinations, constructed or adapted primarily to carry oil or hazardous material in bulk in the cargo spaces and inspected and certificated as a tanker.

(b) Each tanker must have an engineering watch capable of monitoring the propulsion system, communicating with the bridge, and implementing manual control measures immediately when necessary. The watch must be physically present in the machinery spaces or in the main control space and must consist of at least a licensed engineer.

(c) Each tanker must navigate with at least two licensed deck officers on watch on the bridge, one of whom may be a pilot. In waters where a pilot is required, the second officer, must be an individual licensed and assigned to the vessel as master, mate, or officer in charge of a navigational watch, who is separate and distinct from the pilot.

(d) Except as specified in paragraph (e) of this section, a tanker may operate with an auto pilot engaged only if all of the following conditions exist:

(1) The operation and performance of the automatic pilot conforms with the

standards recommended by the International Maritime Organization in IMO Resolution A.342(IX).

(2) A qualified helmsman is present at the helm and prepared at all times to assume manual control.

(3) The tanker is not operating in any of the following areas:

(i) The areas of the traffic separation schemes specified in subchapter P of this chapter.

(ii) The portions of a shipping safety fairway specified in part 166 of this chapter.

(iii) An anchorage ground specified in part 110 of this chapter.

(iv) An area within one-half nautical mile of any U.S. shore.

(e) A tanker equipped with an integrated navigation system, and complying with paragraph (d)(2) of this section, may use the system with the auto pilot engaged while in the areas described in paragraphs (d)(3) (i) and (ii) of this section. The master shall provide, upon request, documentation showing that the integrated navigation system—

(1) Can maintain a predetermined trackline with a cross track error of less than 10 meters 95 percent of the time;

(2) Provides continuous position data accurate to within 20 meters 95 percent of the time; and

(3) Has an immediate override control.

[CGD 91-203, 58 FR 27633, May 10, 1993, as amended by CGD 91-203, 58 FR 36141, July 6, 1993]

#### § 164.15 Navigation bridge visibility.

(a) The arrangement of cargo, cargo gear, and trim of all vessels entering or departing from U.S. ports must be such that the field of vision from the navigation bridge conforms as closely as possible to the following requirements:

(1) From the conning position, the view of the sea surface must not be obscured by more than the lesser of two hip lengths or 500 meters (1640 feet) from dead ahead to 10 degrees on either side of the vessel. Within this arc of visibility any blind sector caused by cargo, cargo gear, or other permanent obstruction must not exceed 5 degrees.

(2) From the conning position, the horizontal field of vision must extend