

§ 157.12

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(ii) Is on a port or starboard weather deck or on the vessel's side above the waterline of its deepest ballast condition; and

(iii) Has an automatic stop valve that is actuated by an oil content meter signal, except that manual valves may be provided on new vessels of less than 4,000 tons deadweight and on existing vessels.

(c) An above waterline discharge point is not required on an existing vessel if its fixed piping system meets paragraphs 3 and 4 of appendix E of this part.

(d) Each tank vessel under §157.09, §157.10a, or §157.10b that carries crude oil must have:

(1) Equipment that drains each cargo pump and oil piping line of oil residue;

(2) Oil piping lines for the draining of oil residue from cargo pumps and other oil piping lines to a cargo tank or a slop tank; and

(3) An oil piping line that meets paragraph (f) of this section and is connected to the cargo discharge piping on the outboard side of the manifold valves for the draining of oil residue from cargo pumps and other oil piping lines to a receptacle on the shore.

(e) Each tank vessel under §157.10 must have:

(1) Oil piping lines that are designed and installed to minimize oil retention in those lines;

(2) Equipment that drains each cargo pump and oil piping line of oil residue;

(3) Oil piping lines for the draining of oil residue from cargo pumps and other oil piping lines to a cargo tank or slop tank; and

(4) An oil piping line that meets paragraph (f) of this section and is connected to the cargo discharge piping on the outboard side of the manifold valves for the draining of oil residue from cargo pumps and other oil piping lines to a receptacle on the shore.

(f) Each oil piping line under paragraph (d)(3) or (e)(4) of this section must have a cross-sectional area of 10 percent or less of the cross-sectional area of the main cargo discharge piping line, except if the oil piping line under paragraph (d)(3) of this section is installed before January 1, 1980, that piping line may have a cross-sectional area of 25 percent or less of the cross-

sectional area of the main cargo discharge piping line.

(g) Each tank vessel to which §157.10d applies that is built under a contract awarded after September 11, 1992 must be arranged so that:

(1) Except for short lengths of completely welded (or equivalent) piping,

(i) Ballast piping and other piping to ballast tanks, such as sounding and vent piping, do not pass through cargo tanks, and

(ii) Cargo piping and other piping to cargo tanks do not pass through ballast tanks;

(2) Suction wells in cargo tanks that protrude into the double bottom are as small as practicable and extend no closer to the bottom shell plating than 0.5*h*, as specified in §157.10d(c)(2) or §157.10d(d)(2), as applicable; and

(3) On a vessel that is constructed and certificated for service exclusively on inland, Great Lakes, or limited short protected coastwise routes, any oil piping that is located within double hull spaces must be placed as far from the outer shell as is practicable and must be fitted with valves at the point of connection to the tank served, to prevent oil outflow in the event of damage to the piping. Such valves must be closed whenever the vessel is underway with any oil in tanks served by the associated piping, except as necessary during transfer operations.

NOTE: Piping location requirements for an oceangoing vessel are in §157.19(d). Related operating requirements are in §157.45.

[CGD 74-32, 40 FR 48283, Oct. 14, 1975, as amended by CGD 80-78, 45 FR 43704, June 30, 1980; CGD 77-058b, 45 FR 43708, June 30, 1980; CGD 79-152, 45 FR 82250, Dec. 15, 1980; CGD 76-088b, 48 FR 45720, Oct. 6, 1983; CGD 90-051, 57 FR 36244, Aug. 12, 1992; USCG-2000-7641, 66 FR 55573, Nov. 2, 2001; USCG-2004-18939, 74 FR 3378, Jan. 16, 2009]

§ 157.12 Oil discharge monitoring and control system.

(a) Each vessel must have an oil discharge monitoring and control system (monitoring system) that is designed for use with each type of cargo oil that the vessel carries.

(b) Each oil content meter component of the monitoring system installed on a U.S. vessel must be approved under 46 CFR part 162, subpart

162.050. Each oil content meter component of the monitoring system installed on a foreign vessel must be approved:

(1) Under 46 CFR part 162, subpart 162.050; or

(2) As meeting IMO Marine Environment Protection Committee resolution MEPC.108(49) by a country that has ratified the MARPOL 73/78. Paragraph 1.2.2 of MEPC.108(49) provides, as to equipment installed in “oil tankers the keels of which are laid, or which are at a similar stage of construction, before January 1, 2005,” for alternative compliance with IMO resolutions A.393(X), A.496(XII), MEPC.13(19), and A.586(14). These five resolutions are incorporated by reference (*see* § 157.02).

(c) Each oil discharge monitoring and control system on a U.S. vessel must be installed in accordance with §§ 157.12b through 157.12g of this part.

[USCG–2004–18939, 74 FR 3378, Jan. 16, 2009]

§ 157.12a Definitions.

As used in §§ 157.12a through 157.12g—
Control section means a unit in a monitoring system composed of the items specified in § 157.12d(a)(4)(viii).

Control unit means a device that receives automatic signals of oil content of the effluent ppm, flow rate of discharge m³/hour, ship’s speed in knots, ship’s position-latitude and longitude, date and time (GMT, Greenwich Mean Time), and status of the overboard discharge control. The control unit makes automatic recordings of data as specified in § 157.12d(h)(2).

Oil discharge monitoring and control system or *monitoring system* means a system that monitors the discharge into the sea of oily ballast or other oil-contaminated water from the cargo tank areas and comprises the items specified in § 157.12d(a)(4).

Overboard discharge control means a device that automatically initiates the sequence to stop the overboard discharge of the effluent in alarm conditions and prevents the discharge throughout the period the alarm condition prevails. The device may be arranged to close the overboard valves or to stop the relevant pumps, as appropriate.

PPM means parts of oil per million parts of water by volume.

Starting interlock means a facility that prevents the initiation of the opening of the discharge valve or the operation of other equivalent arrangements before the monitoring system is fully operational when use of the monitoring system is required by the Convention.

[USCG–2004–18939, 74 FR 3379, Jan. 16, 2009]

§ 157.12b Implementation requirements.

Oil discharge monitoring and control systems must be fitted to oil tankers to which this subpart applies. A monitoring and control system must employ a control unit and be fitted with a starting interlock and overboard discharge control.

[USCG–2004–18939, 74 FR 3379, Jan. 16, 2009]

§ 157.12c Construction, maintenance, security, calibration, and training.

(a) The oil discharge monitoring and control system must be designed to ensure that user access is restricted to essential controls. Access beyond these controls must be available for emergency maintenance and temporary repair but must require the breaking of security seals or activation of another device, which indicates an entry to the equipment.

(b) The seals must be of a design that only the manufacturer or the manufacturer’s agent can replace the seals or reset the system following inspection and permanent repairs to the equipment.

(c) The accuracy of the monitoring system must be verified during International Oil Pollution Prevention certificate renewal surveys. The calibration certificate certifying date of last calibration check must be retained on board for inspection purposes.

(d) The monitoring system may have several scales as appropriate for its intended use. The recording device fitted to a meter which has more than one scale must indicate the scale which is in use.

(e) Simple means must be provided aboard ship to check on instrument drift, repeatability of the instrument reading, and the ability to re-zero the instrument.