contents with an oil/water interface detector, immediately before the discharge shows that there is no oily mixture in the ballast. Use of an oil discharge monitoring and control system is not required. This paragraph applies to discharges of segregated ballast:

(1) Into the navigable waters of the United States; and

(2) Below the waterline at sea from an existing vessel that does not have an above the waterline discharge point for segregated ballast.

(c) All discharges of clean ballast and segregated ballast must be through an above waterline discharge point described in §157.11(b)(2), except that:

(1) A vessel may discharge clean ballast and segregated ballast below the waterline when in port or at an offshore terminal.

(2) A vessel may discharge clean ballast and segregated ballast at sea by gravity below the waterline.

(3) An existing vessel that does not have above waterline discharge points for dedicated clean ballast tanks may discharge clean ballast from those tanks below the waterline at sea.

(4) An existing vessel that does not have above waterline discharge points for segregated ballast tanks may discharge segregated ballast below the waterline at sea.

(d) This section applies only to seagoing tank vessels of 150 gross tons or more.

[CGD 76-088b, 48 FR 45721, Oct. 6, 1983; 48 FR 46985, Oct. 17, 1983; USCG-2000-7641, 66 FR 55573, Nov. 2, 2001; USCG-2004-18939, 74 FR 3382, Jan. 16, 2009]

## §157.45 Valves in cargo or ballast piping system.

When a tank vessel is at sea and the tanks contain oil, valves and closing devices in the cargo or ballast piping system or in the transfer system must be kept closed except they may be opened for cargo or ballast transfer to trim the vessel.

### §157.47 Information for master.

A master or person in charge of a new vessel shall operate the vessel in accordance with the information required in 46 CFR 31.10-30(d) that includes the following:

(a) Stability information.

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(b) Damage stability information determined in accordance with the criteria contained in appendix B of this part.

(c) Loading and distribution of cargo information determined in compliance with the damage stability criteria required in appendix B of this part.

[CGD 74-32, 40 FR 48283, Oct. 14, 1976, as amended by CGD 75-240, 41 FR 54180, Dec. 13, 1976]

### §157.49 Instruction manual.

The master of a tank vessel shall ensure that the instruction manual under §157.23 is available and used when the cargo or ballast systems are operated.

# Subpart D—Crude Oil Washing (COW) System on Tank Vessels

SOURCE: CGD 77-058b, 45 FR 43709, June 30, 1980, unless otherwise noted.

### GENERAL

#### §157.100 Plans for U.S. tank vessels: Submission.

(a) Before each U.S. tank vessel having a COW system under §157.10(e), §157.10a(a)(2), or §157.10c(b)(2) is inspected under §157.140, the owner or operator of that vessel must submit to the Coast Guard plans that include—

(1) A drawing or diagram of the COW pumping and piping system that meets 46 CFR 56.01-10(d);

(2) The design of each COW machine;(3) The arrangement, location, and

installation of the COW machines; and (4) Except as allowed in §157.104, the projected direct impingement pattern of crude oil from the nozzles of the

COW machines on the surfaces of each tank, showing the surface areas not reached by direct impingement.

(b) Plans under paragraph (a) of this section must be submitted to the Officer in Charge, Marine Inspection, of the zone in which the COW system is installed or to the Commanding Officer, U.S. Coast Guard Marine Safety