
(a) Each Crude Oil Washing Operations and Equipment Manual must include the following information:

(1) The text of the Annex of Resolution 15 of the MARPOL 73/78.

(2) A line drawing of the tank vessel’s COW system showing the locations of pumps, piping, and COW machines.

(3) A description of the COW system.

(4) The procedure for the inspection of the COW system during COW operations.

(5) Design characteristic information of the COW system that includes the following:
   (i) Pressure and flow of the crude oil pumped to the COW machines.
   (ii) Revolutions, number of cycles, and length of cycles of each COW machine.
   (iii) Pressure and flow of the stripping suction device.
   (iv) Number and location of COW machines operating simultaneously in each cargo tank.

(6) The design oxygen content of the gas or mixture of gases that is supplied by the inert gas system to each cargo tank.

(7) The results of the inspections recorded when passing the inspections under §157.140.

(8) Characteristics of the COW system recorded during the COW operations when passing the inspections under §157.140 that includes the following:
   (i) Pressure and flow of the crude oil pumped to the COW machines.
   (ii) Revolutions, number of cycles, and length of cycles of each COW machine.
   (iii) Pressure and flow of the stripping device.
   (iv) Number and location of COW machines operating simultaneously in each cargo tank.

(9) The oxygen content of the gas or mixture of gases that is supplied by the inert gas system to each cargo tank recorded during COW operations when passing the inspections under §157.140.

(10) The volume of water used for water rinsing recorded during COW operations when passing the inspections under §157.140.

(11) The trim conditions of the tank vessel recorded during COW operations when passing the inspections under §157.140.

(12) The procedure for stripping cargo tanks of crude oil.

(13) The procedure for draining and stripping the pumps and piping of the COW system, cargo system, and stripping system after each crude oil cargo discharge.

(14) The procedure for crude oil washing cargo tanks that includes the following:
   (i) The tanks to be crude oil washed to meet §157.160.
   (ii) The order in which those tanks are washed.
   (iii) The single-stage or multi-stage method of washing each tank.
   (iv) The number of COW machines that operate simultaneously in each tank.
   (v) The duration of the crude oil wash and water rinse.
   (vi) The volume of water to be used for water rinse in each tank.

(15) The procedures and equipment needed to prevent leakage of crude oil from the COW system.

(16) The procedures and equipment needed if leakage of crude oil from the COW system occurs.

(17) The procedures for testing and inspecting the COW system for leakage of crude oil before operating the system.

(18) The procedures and equipment needed to prevent leakage of crude oil from the steam heater under §157.122(i) to the engine room.

(19) The number of crew members needed to conduct the following:
   (i) The discharge of cargo.
   (ii) The crude oil washing of cargo tanks.
   (iii) The simultaneous operations in paragraphs (a)(19) (i) and (ii) of this section.

(20) A description of the duties of each crew member under paragraph (a)(19) of this section.
(21) The procedures for ballasting and deballasting cargo tanks.
(22) The step by step procedure for the inspection of the COW system by vessel personnel before COW operations begin that includes the procedure for inspecting and calibrating each instrument. (Operational Checklist)
(23) The intervals for on board inspection and maintenance of the COW equipment. Informational references to technical manuals supplied by the manufacturers may be included in this part of the manual.
(24) A list of crude oils that are not to be used in COW operations.

(b) In addition to meeting paragraph (a) of this section, each Crude Oil Washing Operations and Equipment Manual on a tank vessel having a COW system under §157.10a(a)(2) or §157.10c(b)(2) must include the following:
(1) The procedure to meet §157.166.
(2) The procedures to meet §157.155(b).

§157.142 Letter of acceptance: Inspections.
If the inspections under §157.140 are passed, the Coast Guard issues to the tank vessel a letter that states that the vessel complies with this subpart.

§157.144 Tank vessels of the same class: Inspections.
(a) If more than one tank vessel is constructed from the same plans, the owner or operator may submit a written request to the Commandant (CG–543), U.S. Coast Guard, 2100 2nd St. SW., Stop 7381, Washington, DC 20593–7381, for only one of those tank vessels to be inspected under §157.140.
(b) Only one tank vessel of the class is inspected under §157.140, if the Commandant accepts the request submitted under paragraph (a) of this section.

§157.146 Similar tank design: Inspections on U.S. tank vessels.
(a) If a U.S. tank vessel has tanks similar in dimensions and internal structure, the owner or operator may submit a written request to the Officer in Charge, Marine Inspection, of the zone in which the COW system is inspected, for only one of those tanks to be inspected under §157.140(a)(1).