

(1) Is approved under § 157.112; or  
 (2) Bears a certification by an authorized CS that the manual contains the information required under § 157.138.

(b) Evidence of acceptance of the tank vessel's COW system consisting of—

(1) A document from an authorized CS that certifies the vessel meets § 157.10c(b)(2) and each amending letter by the authorized CS approving changes in the design, equipment, or installation; or

(2) The letter of acceptance under § 157.106 and each amending letter issued under § 157.158(c).

(c) Evidence that the COW system passed the required inspections by—

(1) A document from an authorized CS that the vessel has passed the inspections under § 157.140; or

(2) The letter of acceptance under § 157.142 after passing the inspection under § 157.140.

(Reporting and Recordkeeping requirements approved by the Office of Management and Budget under control number 1625-0036)

[CGD 82-28, 50 FR 11627 and 11630, Mar. 22, 1985, as amended by USCG-2006-25150, 71 FR 39210, July 12, 2006]

**§ 157.118 Required documents: Foreign tank vessels.**

(a) The owner, operator, and master of a foreign tank vessel under § 157.10(e) or § 157.10a(a)(2) shall ensure that the vessel does not enter the navigable waters of the United States or transfer cargo at a port or place subject to the jurisdiction of the United States unless the vessel has on board—

(1) The *Crude Oil Washing Operations and Equipment Manual* that—

(i) Is approved under § 157.112; or

(ii) Meets the manual standards in Resolution 15 of the MARPOL 73/78 and bears the approval of the government of the vessel's flag state; and

(2) Either—

(i) A document from the government of the vessel's flag state that certifies that the vessel complies with Resolution 15 of the MARPOL 73/78; or

(ii) The following letters issued by the Coast Guard:

(A) The letter of acceptance issued under § 157.106.

(B) The letter of acceptance issued under § 157.142.

(C) Each amending letter issued under § 157.158(c).

(b) On January 1, 1986, or 15 years after the date it was delivered to the original owner or 15 years after the completion of a major conversion, whichever is later, the owner, operator, and master of a foreign vessel having a COW system under § 157.10c(b)(2) shall ensure that the vessel does not enter the navigable waters of the United States or transfer cargo at a port or place subject to the jurisdiction of the United States unless the vessel has on board—

(1) The *Crude Oil Washing Operations and Equipment Manual* that—

(i) Is approved under § 157.112; or

(ii) Bears a certification by an authorized CS or the government of the vessel's flag state that the manual contains the information required under § 157.138;

(2) Evidence that the COW system passed the required inspections by—

(i) A document from an authorized CS or the government of the vessel's flag state certifying that the vessel passed the inspections under § 157.140; or

(ii) The letter of acceptance under § 157.142 after passing the inspection under § 157.140; and

(3) Either—

(i) A document from an authorized CS or the government of the vessel's flag state certifying that the vessel complies with the design, equipment and installation standards in §§ 157.122 through 157.136 and any amending letters approving changed COW system characteristics; or

(ii) The letter of acceptance under § 157.106 and any amending letters issued under § 157.158(c).

(Reporting and Recordkeeping requirements approved by the Office of Management and Budget under control number 1625-0036)

[CGD 82-28, 50 FR 11627 and 11630, Mar. 22, 1985, as amended by USCG-2000-7641, 66 FR 55573, Nov. 2, 2001; USCG-2006-25150, 71 FR 39210, July 12, 2006]

**§ 157.120 Waiver of required documents.**

The Coast Guard waives the requirement for the letter under § 157.116(b), if

## § 157.122

## 33 CFR Ch. I (7-1-08 Edition)

a U.S. tank vessel engages in a voyage, or under §157.118(b)(2)(ii), if a foreign tank vessel enters the navigable waters of the United States or transfers cargo at a port or place subject to the jurisdiction of the United States, for the purpose of being inspected under §157.140.

### DESIGN, EQUIPMENT, AND INSTALLATION

#### § 157.122 Piping, valves, and fittings.

(a) Except as allowed in paragraph (o) of this section, the piping, valves, and fittings of each COW system must:

(1) Meet 46 CFR Part 56; and

(2) Be of steel or an equivalent material accepted by the Commandant.

(b) The piping of each COW system must be permanently installed.

(c) The piping of each COW system must be separate from other piping systems on the vessel, except that the vessel's cargo piping may be a part of the COW piping if the cargo piping meets this section.

(d) The piping of each COW system must have overpressure relief valves or other means accepted by the Commandant to prevent overpressure in the piping of the COW system, unless the maximum allowable working pressure of that system is greater than the shut-off head of each pump that meets §157.126(b).

(e) Each overpressure relief valve must discharge into the suction side of a pump that meets §157.126(b).

(f) The piping and equipment of a COW system may not be in machinery spaces.

(g) Each hydrant valve for water washing in the piping of a COW system must:

(1) Have adequate strength to meet 46 CFR Part 56 for the working pressure for which the system is designed; and

(2) Be capable of being blanked off.

(h) Each sensing instrument must have an isolating valve at its connection to the piping of the COW system, unless the opening to that connection is 0.055 inches (1.4 millimeters) or smaller.

(i) If the washing system for cargo tanks has a steam heater used when water washing, it must be located outside the engine room and must be capa-

ble of being isolated from the piping of the COW system by:

(1) At least two shut-off valves in the inlet piping and at least two shut-off valves in the outlet piping; or

(2) Blank flanges identifiable as being closed (e.g., spectacle flanges).

(j) If the COW system has a common piping system for oil washing and water washing, that piping system must be designed to drain the crude oil into a slop tank or a cargo tank.

(k) The piping of a COW system must be securely attached to the tank vessel's structure with pipe anchors.

(l) When COW machines are used as pipe anchors, there must be other means available for anchoring the piping if these machines are removed.

(m) There must be a means to allow movement of the COW system piping as a result of thermal expansion and flexing of the tank vessel.

(n) The supply piping attached to each deck mounted COW machine and each COW machine that is audio inspected under §157.155(a)(4)(ii) must have a shut-off valve.

(o) On combination carriers, piping of the COW system installed between each COW machine located in a cargo tank hatch cover and an adjacent location just outside the hatch coaming, may be flexible hose with flanged connections that is acceptable by the Commandant.

#### § 157.124 COW tank washing machines.

(a) COW machines must be permanently mounted in each cargo tank.

(b) The COW machines in each tank must have sufficient nozzles with the proper diameter, working pressure, movement, and timing to allow the tank vessel to pass the inspections under §157.140.

(c) Each COW machine and its supply piping must be supported to withstand vibration and pressure surges.

(d) There must be one portable drive unit available on board the vessel for every three COW machines that use portable drive units during COW operations required by §157.160 before each ballast voyage.

(e) Except as allowed in paragraph (f) of this section, each cargo tank must have COW machines located to wash all horizontal and vertical areas of the