U.S. Coast Guard, Washington, DC 20593–0001, plans that include—

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

(b) The design of each COW machine;

(c) The arrangement, location, and installation of the COW machines; and

(d) 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.

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

[CGD 77–058b, 45 FR 43709, June 30, 1980, as amended by CGD 82–28, 50 FR 11627 and 11630, Mar. 22, 1985; CGD 88–052, 53 FR 25122, July 1, 1988; CGD 96–026, 61 FR 33668, June 28, 1996; USCG–2006–25150, 71 FR 39210, July 12, 2006]

§ 157.104 Scale models.

If the pattern under § 157.100(a)(4) or § 157.102(d) cannot be shown on a plan, a scale model of each tank must be built for Coast Guard inspection to simulate, by a pinpoint of light, the projected direct impingement pattern on the surfaces of the tank.

§ 157.106 Letter of acceptance.

The Coast Guard informs the submitter by letter that the plans submitted under § 157.100 or § 157.102 are accepted if:

(a) The plans submitted show that the COW system meets this subpart; or

(b) The plans submitted and the scale model under § 157.104 show that the COW system meets this subpart.

§ 157.108 Crude Oil Washing Operations and Equipment Manual for U.S. tank vessels: Submission.

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 two copies of a manual that meets § 157.138, to the Officer in Charge, Marine Inspection, of the zone in which the COW system is installed or to the appropriate Coast Guard field technical office listed in § 157.100(b).

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

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

§ 157.110 Crude Oil Washing Operations and Equipment Manual for foreign tank vessels: Submission.

If the owner or operator of a foreign tank vessel having a COW system under § 157.10(e), § 157.10a(a)(2), or § 157.10c(b)(2) desires a Coast Guard approved *Crude Oil Washing Operations and Equipment Manual* under § 157.112, the owner or operator must submit two copies of a manual that meets § 157.138 to the Commandant (CG-543), U.S. Coast Guard, Washington, DC 20593–1000.

(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 CGD 88–052, 53 FR 25122, July 1, 1988; CGD 96–026, 61 FR 33668, June 28, 1996; USCG–2006–25150, 71 FR 39210, July 12, 2006]

§ 157.112 Approved Crude Oil Washing Operations and Equipment Manual.

If the manuals submitted under § 157.108 or § 157.110 meet § 157.138, the Coast Guard approves the manuals and forwards one of the approved manuals to the submitter.

§ 157.114 Crude Oil Washing Operations and Equipment Manual: Not approved.

If the manuals submitted under § 157.108 or § 157.110 are not approved, the Coast Guard forwards a letter to the submitter with the reasons why the manuals were not approved.

§ 157.116 Required documents: U.S. tank vessels.

The owner, operator, and master of a U.S. tank vessel having a COW system under § 157.10(e), § 157.10a(a)(2), or § 157.10c(b)(2) shall ensure that the vessel does not engage in a voyage unless the vessel has on board the following:

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