

TANKER ESCORT

A. APPLICABLE VESSELS

All tank vessels as defined in Federal OPA 90 tanker escort requirements as per 33 CFR 168 (single hull tankers over 5,000 GRT); and State of Washington RCW 88.16.190 and WAC 363-116-500 (all oil tankers 40,000 DWT and over). Refer to Attachment 1 containing Federal and State tanker escort regulations.

B. ESCORT OPERATION

All escorts must be in close proximity for timely and effective response taking into consideration ambient sea and weather conditions, escort configuration, maneuvering characteristics of the vessels, emergency connection procedures, surrounding vessel traffic and other factors that may affect response capability. When required by this standard or otherwise deemed appropriate by the Master/Pilot to tether, the geographic areas include, but are not limited to, Rosario Strait, Guemes Channel, Haro Strait, Boundary Pass and between Saddlebag and Huckleberry Islands.

For the purpose of this document, “FULLY REDUNDANT TANKER” shall be defined as a tanker meeting 33 CFR 157.03 (double hull) and having fully redundant steering and propulsion systems as well as integrated navigation systems to minimally include: (1) Redundant propulsion and steering systems: (A) two independent propellers each with a dedicated engine (or motor), propulsion system (electrical generation system) electrical system (including the switchboard), fuel system, lube oil system; and any other system required to provide the vessel with independent means of propulsion; and (B) two independent rudders each with separate steering systems; and (C) the propulsion and steering components, as described in subsections (A) and (B), above, shall be arranged in separate spaces, such that a fire or flood in one space will not affect the equivalent system in the other space(s). (2) A navigation system in compliance with the federal navigational equipment requirements set forth in 33 CFR Sections 164.35, 164.37, 164.38(b), 164.40, 164.42, 164.46.

1. TETHERING REQUIRED; FULLY REDUNDANT TANKERS

Areas where tethering between escort tug and tank vessel is a requirement of this standard are specifically:

- A. Between Saddlebag and Huckleberry Islands
- B. In the vicinity of Viti Rocks
- C. Within the confines of Guemes Channel from Shannon Point to Cap Sante

2. TETHERING REQUIRED, TANKERS NOT FULLY REDUNDANT

Areas where tethering between escort tug and tank vessel is a requirement of this standard are specifically:

- A. Between Saddlebag and Huckleberry Islands
- B. In the vicinity of Viti Rocks
- C. Within the confines of Guemes Channel from Shannon Point to Cap Sante
- D. Boundary Pass
- E. Haro Strait
- F. Rosario Strait

Tankers should periodically demonstrate the tanker, escort and crews' ability to maneuver in response to a partial or total loss of propulsion and/or steering as a means of ensuring system integrity.

3. TANKER DECK FITTINGS: Noting that the following is already an industry standard put forth by Oil Companies International Marine Forum (OCIMF) in its Mooring Equipment Guidelines and is recognized by the International Maritime Organization (IMO) and by Intertanko, the following tanker deck fittings standards are to be followed in Puget Sound under this tanker escort standard of care when transiting Rosario Strait between Davidson Rock and Buoy CA (including all passages to/from Vendovi Island and anchorages and Anacortes), Boundary Pass and Haro Strait.
 - Oil tankers of 40,000 but less than 50,000 DWT when not in ballast: If the deck fitting, where the escort tug is made fast, has a Safe Working Load (SWL) of less than 100 metric tons, a second tug is to be provided.
 - Oil tankers of 50,000 and more, when not in ballast: If the deck fitting, where the escort tug is made fast, has a SWL of less than 200 metric tons, a second tug is to be provided.
4. ESCORT SPEED: The speed through the water of a tank vessel required to have escort(s) shall not exceed the service speed of the escort(s). The speed of the tank vessel shall be such that the escort(s) can reasonably be expected to bring the tank vessel under control within the navigational limits of the waterway. This speed shall take into consideration ambient sea and weather conditions, maneuvering and other characteristics of the vessel, surrounding vessel traffic, hazards, and other factors reducing maneuvering room. In Rosario Straits, speed through the water should not exceed 10 knots. When tethered, tank vessel and escort(s) must communicate as to appropriate speed so as to allow effective response and facilitate escort vessel maneuvering.
5. TUG AVAILABILITY: Refer to Attachment 1 for minimum state and federal escort tug performance requirements. Regardless of minimum state/federal

performance requirements, tanker Master/Pilot are to confirm that escort vessel(s) assigned to the transit are tractor type in configuration and capable of Indirect, Powered indirect and direct mode of suitable power. Currently, there are three companies providing escort services in Puget Sound. For information regarding their available escort tugs, refer to each company's web site:

- Foss Maritime – www.foss.com. For Ship Assist and Escort Services go to <http://www.foss.com/services/ship-assist-and-tanker-escort/>.
 - Crowley Maritime – www.crowley.com. For Ship Assist and Escort Services in the Pacific Northwest go to: www.crowley.com/ship-Assist-Escort/pacific-northwest.asp.
 - Starlight Marine Services – PNW – www.harleymarine.com/companies-sms.asp. For Ship Assist and Escort Services please contact (206) 209-4360 or email shipassist@harleymarine.com
6. MASTER'S RESPONSIBILITIES: It is the tanker Master's responsibility to ensure the vessel can make a safe transit. Nothing in this SOC precludes the Master from taking the appropriate action to ensure the safety of the vessel. The Master must provide the identification of strong tow point areas where escort tug(s) are likely to be made fast. When vessels tether, particular attention should be paid to not exceed the safe working loads of either vessel's equipment. Tanker Masters and tug Masters should refer to OCIMF "Mooring Equipment Guidelines, 3rd edition.
7. PRE-ESCORT CONFERENCE: All tank vessels that are required to have escort(s) must also conduct a tanker Master – Pilot – Tug Master pre-escort conference as listed in 33 CFR 168.60, and will include relevant port security issues for the transit.
8. ESCORT MANUALS: Tanker Escort Manuals are available from the tug companies performing escort service in Puget Sound. Tanker owners and operators are encouraged to obtain copies of these manuals for reference.
9. DIVERSION OF ESCORT TUG IN EMERGENCY: The Captain of the Port may, in an emergency search and rescue situation, for which the tank vessel escort tug is the closest and most appropriate rescue vessel, request the escort tug proceed to serve as the rescue vessel. The Captain of the Port will make a determination at that time as to whether the escorted tanker may proceed unescorted, or if additional safety measures are required, such as waiting for another tug escort, or anchoring.

C. RECOMMENDATIONS

1. TRAINING: When planned, and on a real-time basis, training that is mutually beneficial for the tug and tanker will be conducted within the four scenarios of Hook-up, Retard, Assist, and oppose. Pilots are strongly encouraged, when doing their 5-year refresher training on manned models, to include scenarios with tethered and non-tethered loss of steerage and propulsion. When conducting simulator

training, tanker companies are encouraged to include escort training. Tug companies are encouraged to coordinate with tanker company simulations.

2. OPERATIONS: Tug companies are strongly encouraged to have one other crew member, besides the boat operator, on the bridge of the escorting tug whenever it is tethered.
3. SOC REVIEW: During the annual review of the Harbor Safety Plan the continuing evolution of technology onboard escorted tank vessels and their required tugs will be evaluated.

Attachment 1: Applicable Federal and State Regulations

TANKER ESCORT

ATTACHMENT 1 - Applicable Federal and State Regulations

- A. FEDERAL OPA 90 REQUIREMENTS:
TITLE 33 – NAVIGATION AND NAVIGABLE WATERS
PART 168 – ESCORT REQUIREMENTS FOR CERTAIN TANKERS
- 168.01 Purpose
 - 168.05 Definitions
 - 168.10 Responsibilities
 - 168.20 Applicable Vessels
 - 168.30 Applicable Cargoes
 - 168.40 Applicable Waters and Number of Escort Vessels
 - 168.50 Performance and Operational Requirements
 - 168.60 Pre-escort Conference

Abstract: All single-hull tankers over 5,000 Gross Tons and laden with petroleum oil cargo are required to be escorted by at least two suitable escort tugs. These requirements apply to any petroleum oil listed in 46 CFR Table 30.25-1 as a pollution category I cargo. These requirements apply to the navigable waters in the U.S. east of a line connecting New Dungeness Light with Discovery Island Light and all points in the Puget Sound area north and south of these lights. Laden tankers greater than 125,000 DWT are prohibited from navigating in these regulated waters.

- B. STATE OF WASHINGTON REQUIREMENTS:
- WAC 363-116-500 Tug Escort Requirements For All Tankers
 - RCW 88.16.170 Oil Tankers - Intent and Purpose
 - RCW 88.16.180 Oil Tankers - State Licensed Pilot Required
 - RCW 88.16.190 Oil Tankers - Restricted Waters - Standard Safety Features Required - Exemptions

Abstract: Tug escort is required for all oil tankers of 40,000 DWT or greater when in a laden condition. The tug horsepower must equal or exceed 5 percent of the ship's deadweight tonnage. These requirements apply to all liquid oil cargoes, whether or not petroleum-based, and they also apply to Liquified Natural and Petroleum Gas carriers according to the same standards that apply to oil tankers. These requirements apply to the navigable waters of Washington State east of a line extending from Discovery Island Light south to New Dungeness Light.

- C. 33 CFR Part 168 Federal Performance Requirements:

The escort vessels, acting singly or jointly in any combination as needed, and considering their applied force vectors on the tanker's hull, must be capable of:—

1. Towing the tanker at 4 knots in calm conditions, and holding it in steady position against a 45-knot headwind;
2. Holding the tanker on a steady course against a 35-degree locked rudder at a speed of 6 knots; and
3. Turning the tanker 90 degrees, assuming a free-swinging rudder and a speed of 6 knots, within the same distance (advance and transfer) that it could turn itself with a hard-over rudder.