

LIGHTERING WITHIN THE WATERS OF PUGET SOUND AND THE STRAIT OF JUAN DE FUCA

SOC Quick Reference

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A. GENERAL INFORMATION, DEFINITIONS, AND REGULATIONS

1. The waters of Puget Sound and the Strait of Juan de Fuca are environmentally sensitive and a precious environmental and economic resource. Lightering operations, while routine in many parts of the country, do in fact pose risks different than those normally expected of standard ship to shore cargo transfer operations. Sector Puget Sound, the State of Washington, and representatives of the petroleum industry have jointly developed the following guidelines to address those risks and ensure safe lightering operations in the Puget Sound region. For the purposes of this policy, lightering is defined as any oil transferred as cargo (not used for that vessel's propulsion) between vessels not docked at a marine transfer facility as defined in 33 CFR 154.
2. These guidelines represent the cooperative efforts of the Coast Guard, Washington State, and industry leaders to develop the best way to mitigate risks to the environment during lightering operations. As such, it is expected that industry members follow them, educate and enforce them among industry groups, and make recommendations to the Coast Guard and Puget Sound Harbor Safety Committee as changes are needed. In order to best mitigate risks, non-emergency requests for lightering operations that do not meet these standards must be made at least one month in advance, and include a description of how the operation can be conducted with an equivalent level of safety.

Full compliance with these standards of care will be considered a mitigating factor in the event of a spill or marine casualty.

3. Sector Puget Sound will conduct announced and unannounced monitoring of lightering operations. Companies should expect to be monitored the first time they lighter in Puget Sound. The frequency of monitoring will be determined by the level of risk, familiarity with company operations, procedures and track records. Sector Puget Sound may stop any lightering operation, or prohibit planned operations due to safety concerns or unacceptable risks.
4. Sector Puget Sound will periodically review the safety record of lightering operations, and work with the Harbor Safety Committee to determine if changes are needed to promote safety. Changes could include additional guidelines or a formal regulatory initiative.
5. **Definitions:** In addition to the terms defined in applicable federal regulations, the following definitions apply:
 - a. Lightering: The transfer of petroleum cargo in bulk from one tank vessel to another tank vessel while at anchor, or at a dock that is not regulated under the facility response plan and other requirements of 33 Code of Federal Regulations (CFR) Part 154. Specifically, this Standard of Care applies to cargo to cargo transfers, but not those transfers of fuel for vessel propulsion (commonly referred to as bunkering.)
 - b. Service vessel: The vessel receiving the cargo in a lightering operation.
 - c. Ship to be lightered (STBL): The vessel delivering the cargo in a lightering operation.
 - d. Lightering specialist: A person with significant experience in operations of the type to be conducted, i.e. ship-to-ship experience to conduct a ship-to-ship evolution. Individual companies should establish policies regarding their lightering specialists. A lightering specialist must be knowledgeable of safety regulations and industry standards, as well as pollution response procedures. The lightering specialist shall act as an advisor and in consultation with the PICs. Note that the lightering specialist is in addition to both PICs. The lightering specialist may be a licensed officer from the ship, but should have no other duties than to monitor the operation. The lightering specialist shall not be the vessel master. Consideration should be given to the length of lightering operations, and appropriate provisions should be made to provide relief for the lightering specialist during extended operations. Finally, a lightering specialist must have the authority to stop a lightering operation in the interest of safety. This in no way removes the final authority of the master (or PIC if a barge) regarding all operations. The lightering specialist should normally be stationed on the service vessel, but may visit the STBL if circumstances dictate. Most operations in Puget Sound involve a tank ship lightering to a tank barge.
 - e. Integrated Tug Barges (ITBs) and Articulated Tug Barges (ATBs) shall be considered as ships for the purposes of these Standards of Care.

6. **Regulations:** Lightering operations must be conducted in strict accordance with the letter and intent of all regulations. In particular, lightering operations fall under the following regulations:

- a. 33 CFR 151 (MARPOL implementation)
- b. 33 CFR 153 Notice of Discharge and Removal of Discharged Oil
- c. 33 CFR 155 Oil or Hazardous Material Pollution Prevention Regulations for Vessels
- d. 33 CFR 156 Oil and Hazardous Material Transfer Operations
- e. 46 CFR 30-40 Tank Vessels
- f. 173-184 WAC Vessel Oil Transfer Advance Notice and Containment Requirements

The following references contain worldwide industry standards, and should be consulted for applicability to Puget Sound lightering:

- g. Oil Companies International Marine Forum Guidelines (OCIMF) Ship to Ship Transfer Guide
- h. Oil Spill Risks from Tank Vessel Lightering - published by the Commission on Engineering and Technical Systems (CETS)

B. STANDARD OF CARE ITEMS

1. **Wind:** Vessels will not come alongside in preparation for lightering if sustained winds are at or exceed 30 knots. If lightering operations have already begun when sustained winds reach 30 knots, personnel in charge of lightering operations will monitor environmental conditions with particular attention, and take any additional measures necessary to reduce risk and prepare for worsening weather. When sustained winds reach 40 knots, lightering operations will cease, and hoses will be drained and disconnected. Personnel should consult separate guidance issued by Sector Puget Sound and the Puget Sound Harbor Safety Committee regarding heavy weather and anchoring procedures relevant to all vessels.
2. **Seas:** For barge to barge or ship to barge operations, lightering operations will cease, with hoses drained and disconnected when waves or swells reach 3 ft. For ship to ship operations, lightering operations will cease, with hoses drained and disconnected when waves or swells reach 6 ft. The wind and sea conditions criteria have been developed with industry input and are used by operating companies in the area. These standards are based on historical observations and experience in handling these vessels under prevalent conditions.
3. **Personnel:** A lightering specialist will be present for each lightering operation, in addition to the personnel normally required for transfer operations. The lightering specialist shall adhere to OPA 90 fatigue standards to ensure the safety of prolonged operations.

4. **Mooring equipment:** All parties will use fenders and mooring lines of sufficient size and type in accordance with the OCIMF Ship to Ship Transfer Guide.
5. **Tug availability:** During lightering operations involving a barge or barges, at least one tug will remain on scene and ready to render assistance during the entire evolution. The attending tug(s) must have sufficient horsepower to maneuver and control at least the smaller of the vessels involved in the operation. Ship to ship operations may take place without direct tug assistance, once the mooring portion of the operation has been completed. However, a tug of sufficient horsepower must be on immediate standby in the area to render assistance in less than 30 minutes. The name of the tug and tug company shall be listed on the Advance Notice of Lightering Sheet.
6. **Response equipment:** In addition to the vessel's Vessel Response Plan requirements, when lightering operations take place, boom capable of encircling the entire operation must be in place with at least a five foot stand-off from the vessels or boom must be positioned so as to provide for the maximum containment of any oil potentially spilled whenever it is safe and effective to do so. Each vessel that delivers oil at a rate exceeding 500 gallons per minute is obligated to have developed and implemented pre-booming strategies using such thresholds under state requirements which become in full force after October 26, 2007. Where it is not safe and effective to pre-boom transfer operations then such length of boom will be made available on scene and ready for immediate deployment such that the boom could be completely in place within 1 hour of detection of a spill, unless the vessel has an equivalent compliance plan approved by ecology and accepted by the USCG COTP. The standby booming requirement could be met by the equipment normally carried by a barge, or by a dedicated response vessel, or by both. If this requirement is met without a response vessel, then a small boat, capable of deploying the boom in a timely fashion, must be on scene and immediately available. If both the barge and a response vessel contribute toward this requirement, the equipment must be compatible. Adequate personnel should be on scene to take appropriate actions on the vessels, while simultaneously deploying boom. Personnel shall be trained in deploying boom, and the boom and response equipment shall be prepared so that it can be deployed with the absolute minimum of delay.
7. **Number of vessels involved:** Lightering operations will involve not more than one ship to be lightered and one service vessel. Bunkering will not take place simultaneously with lightering.
8. **Flow rate, topping off and gauging procedures:** In accordance with OCIMF Ship to Ship Transfer Guide.
9. **Watchkeeping:** Qualified deck officers will monitor the lightering operation as well as the vessel's navigational status. In the case of barges, the PIC and tankermen will monitor the transfer, but an officer will remain on the bridge of the tug or tugs to monitor the tugs communications and navigational status. The STBL must maintain constant communications with Puget Sound VTS on the appropriate working frequency, either 5A or 14, throughout the lightering operation.

- 10. Lightering Plans:** Companies will submit a lightering plan to Coast Guard Sector Puget Sound at least five business days prior to the proposed date of lightering. It is understood that it is the nature of marine industry to have unforeseen schedule changes. However, all possible effort must be made to submit a lightering plan in time for this office to review it, and arrange for lightering monitors. Individual requests for a shorter time period may be considered on a case-by-case basis, but will generally not be granted for other than safety reasons.

Companies can either develop a general fleet lightering plan for each type of operation (ship to ship, ship to barge, barge to barge); or, can submit individual plans prior to each event, covering the details of that specific operation. Fleet lightering plans will be approved and maintained on file at the Sector Puget Sound for review when an “Advance Notice of Lightering” is received. All lightering plans should also be available for inspection when the Coast Guard monitors a lightering operation, or upon request. Once a company has a fleet plan approved, they only have to submit the Advance Notice Form. Both types of lightering plans should include the following elements:

- a. Exact/anticipated location(s) of lightering operations. Locations used beyond the scope of a fleet plan should be added to the Advance Notice Form, when necessary.
 - b. Names, official numbers, lengths, and other pertinent data for all vessels and barges, including if they have approved Washington State response plans.
 - c. Names of the two PICs, and the name(s), required qualifications, and experience of the Lightering Specialist(s). For fleet plans, if this information is left out it must be included with the Advance Notice Form.
 - d. Date of transfer, and estimated start and stop times. Note if the operation will be restricted to daylight hours.
 - e. The maximum limiting weather and sea conditions, if different than the SOC limits.
 - f. Total cargo capacity of the barge(s) and the STBL, and volumes of transfers.
 - g. Planned spill response equipment to be either on scene, pre-staged, or on standby, as per the SOC.
 - h. General description of written transfer procedures, as required by 33 CFR 155. This should include maximum flow rate, means of communication, overflow protection devices, and topping off procedures.
 - i. Proper shipping name, type, and characteristics of product.
 - j. Mooring and fendering configuration between participating vessels.
 - k. Location and disposition of assist tug during lightering operation.
 - l. The final destination of the product.
 - m. If vapor balancing will be conducted (if yes, must comply with all applicable regulations).
 - n. How this Standard of Care will be implemented.
- 11. Notifications:** Companies wishing to conduct lightering operations must notify Sector Puget Sound via fax using the attached “Advance Notice of Lightering Operations” Fax

Sheet. This fax must be sent at least 24 hours prior to commencement of lightering operations. This sheet must be signed by the attending lightering specialist or a company officer senior to the lightering specialist. The STBL shall notify Puget Sound Vessel Traffic Service (PSVTS) via the appropriate working frequency immediately prior to starting and immediately after stopping transfers, using (approximately) the following language:

"Seattle Traffic, this is the T/V _____, commencing lightering operations. On scene weather is within parameters. Out."

"Seattle Traffic, this is the T/V _____. Lightering operations are secured. Out."

Vessels involved in the operation shall monitor the appropriate PSVTS working frequency throughout the duration of the operation, and must immediately report any spills or other problems. These notifications exceed the requirements contained in the Code of Federal Regulations, but allow the Sector Puget Sound enough time to screen operations and dispatch monitors.

12. Anchorage Management: Vessels desiring to lighter in designated anchorages in Puget Sound are reminded to consult the Sector Puget Sound guidance on securing reservations, as follows:

- PSVTS manages the anchorages in Puget Sound and adjacent areas for the Captain of the Port. For safety reasons, each anchorage has a restricted number of anchorage spaces available, and are normally reserved on a "first come, first served" basis. To allow a more efficient and fair allocation of available space the VTS asks that:
 - Reservations be made as far in advance of arrivals as possible.
 - Revisions of ETA's and ETD's be made as they become known.
 - Reservations are only valid for the time span requested. A vessel staying past the ETD may be subject to movement orders to make room for an inbound vessel with a reservation.
 - Anchorage reservations will not be accepted in high usage areas, such as Elliott Bay or Port Angeles, if there is a possibility of delay due to uncertain orders.
 - With these considerations, the occasions of a vessel being denied anchorage or being ordered to depart to make room for another vessel should be infrequent.

Lightering operations are normally permitted in Anacortes, Port Angeles, Elliott Bay, and Commencement Bay. Lightering operations at Vendovi Island anchorages will only be approved on a case-by-case basis. Requests to lighter in other locations should be submitted to Sector Puget Sound at least one month in advance.

ADVANCE NOTICE OF LIGHTERING OPERATIONS

This form, or the equivalent information, must be faxed to Sector Puget Sound at **(206) 217-6199**, a minimum of 24 hours prior to commencing transfer operations. Start / stop times are assumed to be accurate to within 1 hour. Changes should be made by either a revised fax, or by telephone to our operations center at **(206) 217-6001**. Sector Puget Sound will accept one notification for both the service vessel and STBL. It is the company's responsibility to ensure anchorage reservations are made separately through Coast Guard Vessel Traffic Service Puget Sound at **(206) 217-6040**.

Fleet plan on file with Sector Puget Sound: No / Yes Date Submitted: _____

Location of Operation: _____

Date of Operation: _____

Estimated Start Time: _____ Estimated Stop Time: _____

Lightering Specialist (L/S) in Charge: _____ Telephone: _____

Experience/ # of lighterings previously conducted by L/S: _____

PIC #1: _____ PIC #2: _____

Ship to be Lightered (STBL): _____ Official No: _____

Total Cargo Capacity of STBL: _____

Service Vessel: _____ Official No: _____

Total Cargo Capacity of Service Vessel: _____

Product to be Transferred: _____ Amount (bbls): _____

Product to be Transferred: _____ Amount (bbls): _____

OSRO, STBL: _____ Telephone: _____

OSRO, Service Vessel _____ Telephone: _____

Standby Tug Name/Company: _____ Telephone: _____

STBL Company Point of Contact: _____

POC Telephone: _____ Fax: _____

24 Hour Company Telephone: _____

I certify that this lightering operation will be conducted in accordance with the Puget Sound Harbor Safety Committee Lightering Standard of Care and my company's lightering plan, particularly with regard to the limiting weather parameters.

Signature of lightering specialist (or lightering company officer):

Date/Time Submitted: _____

This form is (circle one): ORIGINAL / UPDATE to form dated: _____