

Lower Columbia Region Harbor Safety Committee  
Harbor Safety Plan | Chapter 7

# LIGHTERING GUIDELINES

**CHANGE LOG:**

Changes Made	Sub-Committee	Date Approved
Chapter was reviewed and no changes required	Harbor Safety Committee	5/11/22

## **A. Columbia River Lightering Operations**

1. The waters of the Columbia River are environmentally sensitive and a valuable economic and environmental resource. Lightering operations, while considered routine in many parts of the country, do in fact pose significant risks beyond those normally expected of standard ship to shore cargo transfer operations.
2. These guidelines represent the cooperative efforts of the U.S. Coast Guard, Washington State, Oregon State, and industry leaders to develop the best way to mitigate risks to the environment during lightering operations within the Lower Columbia Region.
3. These guidelines are Standards of Care (SOC) for lightering and topping-off (reverse lightering) operations in the Lower Columbia River region of the USCG Sector Portland Captain of the Port (COTP) zone. As such, it is expected that industry members follow them, educate and enforce them among industry groups, and make recommendations to the U.S. Coast Guard and Lower Columbia Region 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 well 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.
4. Federal and state representatives may conduct announced and unannounced monitoring of lightering operations. Companies should expect to be monitored the first time they lighter in the Columbia River. The frequency of monitoring will be determined by the level of risk, familiarity with company operations, procedures and track records. Lightering operations may be stopped or prohibited due to safety concerns or unacceptable risks.
5. USCG Sector Portland, the Harbor Safety Committee, and other affected stakeholders will periodically review the safety record of lightering operations to determine if changes are needed to promote safer operations.

## **B. Definitions**

In addition to the terms defined in applicable federal regulations, the following definitions apply:

- Lightering is 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 CFR 154. Specifically, this Standard of Care applies to cargo transfers, but not those transfers of fuel for vessel propulsion (commonly referred to as bunkering.)
- Service Vessel is the vessel receiving the cargo in a lightering operation or delivering the cargo in a topping-off (reverse lightering) operation.
- Ship to be lightered (STBL) is the vessel delivering the cargo in a lightering operation or receiving the cargo in a topping-off (reverse lightering) operation.

## **C. Applicable 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:

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

In addition to the above regulations, vessels engaged in lightering operations must adhere to the vessel's Oil Transfer Procedures and should consult the Oil Companies International Marine Forum Guidelines (OCIMF) Ship to Ship Transfer Guide.

## **D. Standards of Care**

1. **Location:** Lightering operations, for vessels at anchor, may be conducted in any anchorage pre-approved for lightering operations by USCG Sector Portland. These anchorages are described in the separate Columbia River Anchorage Guidelines. Lightering operations in anchorages not pre-approved for lightering, or involving an emergency with the vessel being lightered, may be approved by USCG Sector Portland on a case-by-case basis.
2. **Lightering Plans:** Companies will submit a lightering plan to Coast Guard Sector Portland at least four days prior to the proposed date of lightering or when the vessel's Notice of Arrival is required. 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 Portland for review when an "Advance Notice of Lightering" is received. All lightering plans should also be available for inspection when the Coast Guard or State 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 details of any State approved contingency plans.
  - c. Date of transfer, and estimated start and stop times. Note if the operation will be restricted to daylight hours. For fleet plans, this information is included in the Advance Notice form.
  - d. The maximum limiting weather and sea conditions, if different than the SOC limits.
  - e. Total cargo capacity of the barge(s) and the STBL, and volumes of transfers (for fleet plans this is included on Advance Notice form.
  - f. Planned spill response equipment to be either on scene, pre-staged, or on standby, as per the SOC.
  - g. General description of written transfer procedures, as required by 33 CFR 155. This should include maximum flow rate, means of communication, overfill protection devices, and topping off procedures.
  - h. Proper shipping name, type, and characteristics of product.
  - i. Mooring and fendering configuration between participating vessels.
  - j. Location and disposition of standby tugs during lightering operation.
  - k. The final destination of the product.
  - l. If vapor balancing will be conducted (if yes, must comply with all applicable regulations).
  - m. General narrative of how the company intends to implement the SOC.
3. USCG Notification: The agent, owner, or operator of the STBL will ensure that USCG Sector Portland receives the lightering plan in writing at least four days prior to the proposed date of lightering or when the vessel's Notice of Arrival is required. In accordance with 33 CFR 156.118 or 33 CFR 156.215 as may be applicable, a finalized date and time notification will be submitted within 24 hours of the lightering operations. A lightering notification form is enclosed with these guidelines.

The vessel being lightered (STBL) shall advise USCG Sector Portland and Columbia River Pilots dispatch when lightering has actually begun, and when the last consecutive operation has concluded, or if lightering is secured for any emergency reason. These notifications can be accomplished by phone to USCG Sector Portland at 503/240-9301, or by VHF Channel 16, using the call sign COAST GUARD SECTOR PORTLAND, then shifting to the frequency specified. The Coast Guard may initiate a Broadcast Notice to Mariners, advising nearby traffic of the operation, and to proceed with due caution in the

immediate area. The Columbia River Pilots are reached through their Portland dispatch office at (503) 289-9922 or email to [dispatchers@colrip.com](mailto:dispatchers@colrip.com).

4. **Wind:** Expected weather conditions during the expected duration of the operation must be reviewed by the personnel conducting the pre-transfer conference, and agreement made on measures to be taken if unfavorable weather (wind, lightning) is expected. 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, vessel masters and Persons-in-Charge of lightering operations will take any additional prudent measures necessary to reduce risk and prepare for worsening weather. If sustained winds reach 40 knots (as determined by the STBL) lightering operations will cease, and hoses drained. The Persons-in-Charge and vessel masters will then determine if, given the high winds, the transfer hoses can be safely disconnected.
5. **Current:** If river stages are forecast to exceed long-term mean flows for intended lightering anchorages, or currents are expected to exceed 3 knots, vessel masters and the Persons-in-Charge shall exercise prudence and due care in determining the proper ground tackle and mooring line arrangement to handle the anticipated conditions. If river stages are forecast to reach or exceed "BANKFULL" stages, or the current in the anchorage is 5 knots or more, the Service Vessel should not come alongside. If, during the lightering operation the above-described river conditions occur, the transfer will cease and hoses drained. The vessel masters and Persons-in-Charge will then exercise prudence in determining if the transfer hoses can be safely disconnected.
6. **Personnel:** A separate Person-in-Charge will be assigned for each vessel involved in the lightering. The appropriate work-hour regulations of 46 CFR will be adhered to. Additional personnel, such as pollution control representatives and safety advisors may be assigned but in no way relieve the vessel masters or Persons-in-Charge of their responsibilities and authority as described in the applicable regulations of 33 and 46 CFR.
7. **Mooring equipment:** All parties will use fenders and mooring lines of sufficient size and type in accordance with industry practice and/or the Oil Companies International Marine Forum (OCIMF) Ship to Ship (STS) Transfer Guide.
8. **Tug availability:** During lightering operations at anchorage, a tug of sufficient horsepower to control the Service Vessel involved in the operation shall be available to render assistance in less than 30 minutes. For barge-to-barge lightering, either a suitable tug for each barge, or one tug capable of maneuvering both barges must be immediately available at the lightering location. For deep-draft vessels, whenever conditions prevent the arriving STBL from using a stern anchor or making fast at the stern to an anchor buoy, an assist tug should remain on station, immediately available at the lightering

location. The designated tug and company shall be listed in the 24-hour advance notice.

9. Response equipment: Both the STBL and the Service Vessel must make appropriate arrangements for Average Most Probable Discharge (AMPD) response resources prior to commencing the transfer. The name and contact number of the AMPD response provider will be provided in the 24-hour advance notice.
10. Washington State Requirements: Vessels conducting lightering in Washington State waters must comply with the transfer and pre-booming requirements of WAC 173-184. This includes submitting an Advance Notice of Transfer at least 24 hours before lightering to the Washington State Department of Ecology. The notice can be submitted online at <https://secureaccess.wa.gov/ecy/ants>, via email to [OilTransferNotifications@ecy.wa.gov](mailto:OilTransferNotifications@ecy.wa.gov) or via fax to (800) 664-9184.
11. Number of vessels involved: Lightering operations will normally involve not more than one ship to be lightered and one Service Vessel. In some cases, a “bridge” barge may be utilized and this procedure should be addressed in the lightering plan. Bunkering will not take place simultaneously with lightering.
12. Flow rate, topping off and gauging procedures: Conducted in accordance with the individual vessel’s oil transfer procedures and the OCIMF STS Transfer Guide.
13. Bridge watch: A qualified deck officer of the vessel being lightered, fluent in English, shall maintain a bridge radio watch on VHF Channels 13 and 16 during lightering. The watch officer is expected to keep a close watch on the lightering operation and be alert for any approaching commercial traffic capable of posing a hazard to the operation. For vessels at anchor, if the watch determines that the anchors are dragging, the masters and persons-in-charge will be immediately notified. In the case of attending and/or assist tugs, a licensed officer, capable of taking any necessary action, will remain on the bridge and maintain a radio watch on Channel 16 and the lightering operation working frequency.
14. Air Quality Standards: Lightering operations on the Columbia River are subject to air pollution regulations in both Oregon (Oregon Administrative Rules 340-232-0110) and Washington (SWCAA 491-040). Vessels lightering while made fast to a marine facility may not lighter gasoline or gasoline-like products unless a vapor recovery system is used. Lightering of gasoline and gasoline-like products at a facility or at anchor on Clean Air Action Days is prohibited unless vapor recovery systems are used. Clean Air Action Days are announced by the air pollution control agencies in both states when conditions are especially likely to lead to unhealthy ozone concentrations. Under ongoing adverse air quality conditions, lightering without vapor recovery may be prohibited altogether for up to two days. On third and subsequent days, lightering would only be allowed between the hours of 2 PM and 2 AM. To determine if a Clean Air Action Day has been or will be called, contact the

Oregon Air Quality boards at (503) 225-5555, ext.8054, (503) 229-5359 and the Washington SWCAA at (360) 574-3058.

15. Alternative Lightering Plans: Requests to conduct lightering operations which vary from these standards must be made well in advance to USCG Sector Portland. The alternative plan must include a description of how the operation will be conducted with an equivalent or greater level of safety to this standard of care.

## ADVANCE NOTICE OF LIGHTERING OPERATIONS

This form, or the equivalent information, must be sent to USCG Sector Portland via fax at (503) 240-9302 or emailed to D13-PF-SectorPortland-SCCInbox@uscg.mil 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/email or by telephone to the Coast Guard Operations Center at (503) 240-9301. USCG Sector Portland 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 the Columbia River Pilots dispatch at (503) 289-9922.

Location of Operation: \_\_\_\_\_

Date of Operation: \_\_\_\_\_

Time Alongside: \_\_\_\_\_

Estimated Separation Time: \_\_\_\_\_

Estimated Start Time: \_\_\_\_\_

Estimated Stop Time: \_\_\_\_\_

Ship to be Lightered (STBL): \_\_\_\_\_

Official No: \_\_\_\_\_ Flag: \_\_\_\_\_

Total Cargo Capacity of STBL: \_\_\_\_\_

Service Vessel: \_\_\_\_\_

Official No: \_\_\_\_\_ Flag: \_\_\_\_\_

Total Cargo Capacity of Service Vessel: \_\_\_\_\_

Product to be Transferred: \_\_\_\_\_ Amount (bbls): \_\_\_\_\_

Product to be Transferred: \_\_\_\_\_ Amount (bbls): \_\_\_\_\_

Person-in-Charge, STBL: \_\_\_\_\_ Telephone: \_\_\_\_\_

Person-in-Charge, Service Vessel: \_\_\_\_\_ Telephone: \_\_\_\_\_

OSRO, STBL: \_\_\_\_\_ Telephone: \_\_\_\_\_

OSRO, Service Vessel: \_\_\_\_\_ Telephone: \_\_\_\_\_

Standby Tug Name/Company: \_\_\_\_\_ Telephone: \_\_\_\_\_

STBL Company Point of Contact: \_\_\_\_\_

24 Hour Telephone: \_\_\_\_\_

I certify that this lightering operation will be conducted in accordance with the Columbia River Harbor Safety Plan Lightering Standards of Care and my company's lightering plan, particularly with regard to the limiting weather and river condition parameters.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Company

Date submitted: \_\_\_\_\_

Time Submitted: \_\_\_\_\_

This form is (check one): ☐ ORIGINAL ☐ UPDATE to form dated: \_\_\_\_\_