

General Oil Transfer Requirements for Facilities and Vessels

Introduction

The Washington Department of Ecology's three oil transfer rules are designed to prevent spills when oil is transferred over water. Historically, bulk oil transfers have contributed to the majority of spills in state waters. In 2004, state lawmakers instructed Ecology to adopt a "zero spills" goal and these rules were written to complement that effort. The rules' citations in the Washington Administrative Code (WAC) are chapter 173-180 WAC for facilities, and chapters 173-184 and 317-40 WAC for vessels.

Do these rules apply to me?

- All Class 1, 2, 3 and 4 facilities delivering oil in bulk to non-recreational vessels or pipelines must meet state facility oil transfer requirements in chapter 173-180 WAC.
- A fueling station or marina that transfers oil to recreational vessels exclusively is not covered under these rules (see definition of "recreational" vessel in sidebar).
- All vessels delivering oil in bulk to a non-recreational vessel or facility must meet state vessel oil transfer requirements in chapter 173-184 WAC and, if providing bunkers to covered vessels, also the requirements in chapter 317-40 WAC. Covered vessels are defined in RCW 88.46.010.

Am I a Class 1, 2, 3, or 4 facility?

The rules establish four different classes of facilities:

- The **Class 1** category applies to large, fixed shore-side facilities such as refineries, refueling terminals, and oil pipelines. This definition includes facilities that transfer to tank vessels and pipelines.

WHY IT MATTERS

Because the risk of a catastrophic spill during an oil transfer is real, the oil transfer rules are designed to help prevent spills by adhering to specific regulations and will minimize the effect of a spill when it does happen.

DEFINITION

A **recreational** vessel is a vessel owned and operated only for pleasure with no monetary gain involved, and if leased, rented, or chartered to another for recreational use, is not used for monetary gain. This definition applies to vessels such as house boats, ski boats, and other small craft on a rental or lease agreement.

If a vessel does not meet the definition of a recreational vessel it is considered a **non-recreational** vessel. Some examples of non-recreational vessels are sight seeing or tour boats, passenger vessels, chartered fishing boats, boats used for parasailing, tug boats, etc.

This definition is not based on the vessel's size, but instead on its use.

Special accommodations:

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- The **Class 2** category applies to mobile equipment such as tank trucks, railcars, and portable tanks that transfer to any non-recreational vessel of any size.
- The **Class 3** category applies to small tank farms and terminals that transfer oil to non-recreational vessels that have a fuel capacity of 10,500 gallons or more. This definition does not include facilities that transfer to tank vessels and pipelines, as they are Class 1 facilities.
- The **Class 4** category applies to marinas or other small fueling facilities that transfer oil to non-recreation vessels that have a fuel capacity of less than 10,500 gallons. A separate focus sheet is available that addresses the requirements for Class 4 facilities, *Focus on Marinas and Small Fueling Facilities*. (Publication # 06-08-033)

I am a delivering vessel or a class 1, 2 or 3 facility. What do these new rules require for oil transfer operations?

Designating the Person-In-Charge (PIC)

All owners and operators of Class 1, 2, and 3 facilities and vessels transferring oil in bulk on or over state waters must designate a "person in charge" (PIC) who is responsible for supervising the oil transfer. All personnel involved in the transfer must be sufficiently trained to ensure a safe transfer. All Class 1 and 2 facilities must also be trained and certified as required in chapter 173-180 WAC and carry proof of this certification while participating in an oil transfer.

Pre-Transfer Conference

Under the rules, a face-to-face conference between the receiving and delivering PICs must occur prior to the oil transfer. The PICs must be able to communicate in English during this pre-transfer conference.

The PICs must discuss and approve the pre-transfer plan, the contents of the Document of Inspection (DOI), the procedures for communicating soundings, changing over tanks, topping off, shift changes, and emergency shutdown, as well as possible impacts of predicted weather and/or sea conditions. If applicable, the conference will identify the point-of-transfer watch and deck-rover watch on the vessel. The PICs may conduct this conference via radio if weather conditions make moving from vessel to facility or vessel to vessel unsafe.

Pre-Loading or Cargo Transfer Plan

A pre-load or cargo transfer plan must be completed prior to the pre-transfer conference. At a minimum, the plan must include:

- Identification, location, and capacity of the vessel's tanks receiving oil (if applicable);
- Level and type of liquid in all bunker or cargo oil tanks prior to the oil transfer;
- Planned final "ullage", or the depth of space above the free surface of the oil, and planned final "innage", or the difference from the surface of the oil to the tank bottom;
- Planned final percent of each tank to be filled;

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- Sequence in which the tanks will be filled; and
- The facility or vessel's procedures to regularly monitor all receiving tank levels and valve alignments during the transfer operation.

Communication between PICs

The facility PIC must ensure continuous, two-way voice communication between the delivering and receiving PICs throughout all phases of the transfer operation. The facility PIC must ensure that two portable intrinsically safe communication devices are available for use during the transfer.

An air horn must be available for emergency shutdown signals and all personnel involved in the oil transfer must know and use English phrases and hand signals indicating STOP, HOLD, WAIT, FAST, SLOW, and FINISH.

Safe Transfer Operational Requirements

All oil transfer operations at Class 1 and 2 facilities must be conducted according to the facility's Ecology-approved operations manual.

All transfer connections must be made using appropriate materials.

All persons involved in an oil transfer must have the means to contain and recover any drips or leaks from connections within the oil transfer system. Deliverers providing oil to vessels without fixed containment must use automatic back pressure shutoff valves and provide adequate portable containment for each tank vent on the vessel.

Before the transfer starts the PICs must verify that the Document of Inspection (DOI) is signed by both PICs; the available capacity in the receiving tank(s) is (are) greater than the volume of oil to be transferred; all valves are properly aligned; and an emergency shutdown system is in place and is operable. Once the transfer starts, the PICs must ensure the tanks designated in the pre-transfer plan are receiving oil at the planned rate. If a shift change occurs, the relieving PIC must notify the person in charge at the other end of the transfer and sign the DOI.

The delivering PIC must refuse to start or continue an oil transfer if the receiving PIC has not provided complete information as required by the Document of Inspection or refuses to correct deficiencies identified in the pre-transfer conference; does not comply with the operations manual or does not respond to identified concerns; and/or refuses to discuss the pre-load plan and oil transfer rate.

Work hours

Facility personnel with oil transfer duties may NOT work more than 16 hours in any 24-hour period; or more than 40 hours in any 72-hour period. The exception would include working in an emergency or to respond to a spill. A covered vessel's personnel when bunkering must comply with the 1990 Oil Pollution Act work hours or the Standards for Training and Certification of Watchkeepers rest hours.

The owner or operator of a vessel engaged in bunkering and Class 1, 2, or 3 facilities

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must maintain work hour records demonstrating compliance with the above work hour restrictions.

Oil transfer equipment requirements

All Class 1, 2, 3, and 4 facilities' oil transfer hoses and/or piping used in oil transfer operations must meet the following criteria:

- Must be well supported to avoid crushing or excessive strain.
- Flanges, joints, hoses, and piping must be visually checked for cracks and leakage prior to transferring oil.
- Must be in good condition and not have any loose covers, cracks, kinks, bulges, soft spots, or other defects that penetrate the hose reinforcement layer.
- Hoses or piping must not be permitted to chafe on the dock or vessel or be in contact with any other surface that might damage the hoses or piping.
- All hoses and loading arms must be long enough to allow the vessel to move to the limits of its moorings without placing excessive strain on the oil transfer equipment.
- Hose ends must be tightly closed with properly secured flanges when they are moved into position for connection and also immediately after they are disconnected. Residue in the hose or loading arm must be drained either into the vessels tanks or into suitable shore receptacles before they are moved away from the point of connection.

Oil transfer equipment testing

Annual tests of all oil transfer equipment such as pumps, valves, piping, manifolds, connections, and hoses are required. These tests must be done in accordance with the manufacturer's recommendations and industrial standards - or through procedures identified under federal regulations.

For facilities, the design, construction, and repair records for storage tanks, pipelines, and all oil transfer equipment testing and repair records must be kept for the life of the equipment. Inspection, maintenance, and repair records for pumps, valves, manifolds, and other ancillary equipment used in oil transfers must be kept for ten years.

For more information or technical assistance contact:

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Ecology Spills Program web site:
<http://www.ecy.wa.gov/programs/spills/spills.html>

Email for questions about the rule:
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