



Focus on Pre-Booming Requirements, Alternative Measures and Equivalent Compliance for Oil Handling Facilities

from Ecology's Spill Prevention, Preparedness, and Response Program

Introduction

The Washington Department of Ecology's 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.

Does this rule apply to my facility?

Any oil handling facility transferring oil in bulk with non-recreational vessels or pipelines on or over Washington waters must meet the requirements of WAC 173-180. For the purposes of this rule facilities are divided into four classes. The requirements are scaled based on the class of facility.

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 a non-recreational vessel 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 vessels size, but instead on its use.

What are the "classes" of facilities this rule applies to?

Class 1 facilities are large, fixed shore-side facilities such as refineries, refueling terminals, and oil pipelines. This definition includes facilities which transfer to and from tank vessels and pipelines.

Class 2 facilities include tank trucks, railcars, and portable tanks which transfer to non-recreational vessels of any size.

Class 3 facilities include small tank farms and terminals that transfer to non-recreational vessels with a total oil capacity of 10,500 gallons or more. This definition does not include facilities which transfer to tank vessels and pipelines, as they are Class 1 facilities.

Class 4 facilities include marinas or other small fueling facilities that transfer oil to non-recreation vessels with a total oil capacity of less than 10,500 gallons. Small fueling stations or marinas that transfer to recreational vessels exclusively are not covered by these regulations.

Does this rule apply to the types of oil my facility transfers?

The regulations apply to transfers of all oil that can be recovered when spilled to water, including jet fuels, diesels and heating oils. They do not apply to transfers of gasoline, aviation gasoline, and other highly volatile products with similar characteristics.

Does my facility need to pre-boom every transfer?

Class 4 facilities do not have to pre-boom oil transfers, although they may elect to do so. A separate focus sheet is available that addresses the requirements for Class 4 facilities, *Focus on Marinas and Small Fueling Facilities*.

All delivering Class 1, 2, and 3 facilities must pre-boom a **Rate A** transfer (see definition of **Rate A** transfer below) when it is safe and effective to do so. When transferring at **Rate B**, the delivering facility may choose to either pre-boom or use alternative measures. When it is NOT safe and effective to pre-boom, the delivering facility must meet the alternative measure requirements briefly described in the **Alternative Measures** section below and more fully described in WAC 173-180-221 and 222 and the *Pre-Booming Guidance Manual* provided by Ecology. Additionally, all **Rate A** delivering facilities must refer to their operation manual for “safe and effective” threshold values to determine when to use alternative measures.

How do I know if my facility is conducting a Rate A transfer or a Rate B transfer?

A facility may be conducting either a **Rate A** or **Rate B** transfer depending on the transfer rate of the specific oil transfer operation. These rules use transfer rate as a cut-off to define the pre-booming and alternative measures requirements. It is important to determine the planned transfer rate prior to the transfer operation and the stay within those boundaries during the transfer operation. This knowledge can prevent a spill from tank overflows as well as ensuring the proper requirements for prebooming or alternative measures are met. The transfer rates are:

Rate A – Operations transferring oil over 500 gallons per minute.

Rate B – Operations transferring oil at 500 gallons per minute or less.

What are safe and effective threshold values?

The rules require delivering facility owners or operators to determine the “threshold values” for sea and wave conditions, wind speed, current velocity, and any other pertinent conditions, beyond which they believe pre-booming is unsafe and/or ineffective for each location the facility conducts **Rate A** transfers. Facilities must submit a *Safe and Effective Threshold Determination Report* to Ecology for review and approval for each location at which the facility plans to conduct **Rate A** transfers. This report contains the environmental threshold values for determining when it is safe and effective to pre-boom; it also may contain the environmental threshold values for shutting down the transfer operation.

The report is a detailed analysis based on environmental data collected on the site and the boom manufacturer’s recommendations for effectiveness. The facilities must also take into account the safety of the personnel involved in the possible pre-booming deployment. Report requirements may be found in WAC 173-180-224. These reports must be submitted to Ecology within 180 days from the effective date of the rule. **This means reports must be submitted to Ecology by April 25, 2007.**

What are the pre-booming requirements?

For purposes of pre-booming, a delivering facility conducting a **Rate A** transfers must have access to boom four times the length of

Pre-Booming

Pre-booming a transfer means completely surrounding the vessel and facility/dock area directly involved in the oil transfer operation. The rule allows flexibility for facilities transferring in specific environments, such as rivers. In environments where spilled oil will always travel in one direction, for instance in a river situation, the facility may boom where it will provide for maximum containment of *any oil* spilled. This means that in this situation the facility may boom on the down-river side of the transfer. Facilities may NOT boom only under the transfer hose/manifold area. Booming only under the transfer manifolds would not provide for maximum containment of any oil spilled outside of this narrowly boomed area.

the largest vessel involved in the transfer or 2000 feet whichever is less. If a facility elects to pre-boom a **Rate B** transfer, the facility must have enough boom to completely surround the vessel and facility/dock area directly involved in the oil transfer operation, or the area which would provide for maximum containment of *any oil* spilled into the water. All boom and related equipment must be of the appropriate size and design for the environmental conditions at the site based on the manufacture's specifications. In the event of an emergency, the delivering facility must be able to quickly disconnect all containment boom.

If multiple products are transferred simultaneously and one of the products transferred is NOT appropriate for pre-booming (gasoline for example), then the portion of the transfer which is inappropriate to pre-boom must still meet the alternative measures criteria. All portions of the transfer which may be safely and effectively pre-boomed must be pre-boomed. For additional pre-booming requirements refer to WAC 173-180-221 and 222 and the *Pre-Booming Guidance Manual*.

What is the compliance date for pre-booming Rate A transfers?

All facilities must begin pre-booming **Rate A** transfers within 365 calendar days from the effective date of this rule. This means delivering facilities must ensure all **Rate A** transfers meet all the pre-booming requirements in WAC 173-180-221 and 222 on or before October 26, 2007.

What are the alternative measures requirements?

For a **Rate A** oil transfer a delivering facility must:

- Complete and submit Ecology's *Boom Reporting* form via email or FAX. This form is available at the following web site: <http://www.ecy.wa.gov/programs/spills/spills.html>.
- Have access to boom four times the length of the largest vessel involved in the transfer or 2000 feet, whichever is less.
- Have personnel trained in the proper use and maintenance of boom and recovery equipment.
- Have enough recovery equipment readily available on-site for a seven-barrel spill (i.e. containers, shovels, sorbent materials, storage capacity, etc.).

Should a spill occur the facility must:

- Have the ability to safely track the spill in low visibility conditions and the tracking system must be able to be on-scene within thirty minutes of being made aware of a spill.
- Within one hour of notification of a spill, be able to completely surround the vessel(s) and dock area with containment boom.
- Within two hours of notification of a spill, have additional boom four times the length of the largest vessel involved in the transfer or 2000 feet, whichever is less, available for containment, protection and recovery.
- Have an operable skimming system available on site with fifty barrels recovery and one hundred barrels of storage capacity.

For a **Rate B** transfer the facility must:

- Have access to boom long enough to surround the vessel(s) and dock area involved in the transfer, providing for maximum containment.
- Have personnel trained in the proper use and maintenance of boom and recovery equipment.
- Have recovery equipment available on site for a two-barrel spill (i.e. containers, shovels, sorbent materials, storage capacity, etc.).

Should a spill occur the facility must:

- Within one hour of notification of a spill, be able to deploy 500 feet of boom for containment, protection and recovery.
- Within two hours of notification of a spill, have an additional 500 feet of boom available on scene for containment, protection and recovery.

For additional alternative measures requirements see WAC 173-180-221 and 222.

What is the compliance date for meeting the alternative measure requirements?

All facilities must meet the alternative measures requirements within 120 days from the date the rule goes into effect. That means all facilities transferring at either **Rate A** or **Rate B** must meet the alternative measures in WAC 173-180-221 and 222 by February 25, 2007.

My facility has a unique operating environment and I have an innovative way to address spill containment and recovery. May I submit an Equivalent Compliance Plan proposal to Ecology?

Any facility may submit an Equivalent Compliance Plan proposal for the rule's alternative measures requirements. These plans are intended to allow flexibility for facility owners and operators to develop innovative approaches to counter environmental peculiarities in their transfer locations. Until the Equivalent Compliance Plan has been approved, the facility must meet the pre-booming or alternative measures required in the rule.

The proposal must contain:

- The name of the company and contact person;
- Table of contents and executive summary;
- Detailed description that includes equipment, personnel, operating procedures, and maintenance systems;
- Detailed analysis of how the proposal offers equivalent or greater protection, prevention, and response measures;
- Methodology of the analysis;
- Detailed results with supporting data, references, graphs, tables, photos etc.; and
- Technical feasibility of proposal versus current requirements.

The proposal must be submitted at least 120 days before planned operation. For additional Equivalent Compliance Plan information please see WAC 173-180-070.

For more information or technical assistance contact:

Washington Department of Ecology
Spill Prevention, Preparedness, and Response Program
Prevention Section
PO Box 47600, Olympia, WA 98504-7600
Olympia Office: 360-407-7455; Fax: 360-407-7288 or 1-800-664-9184

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

Questions about the rule: OilTransferRule@ecy.wa.gov

Notifications: OilTransferNotifications@ecy.wa.gov