Focus on **Pre-Booming Requirements, Alternative Measures and Equivalent Compliance for Vessels Delivering Oil**

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 WAC 173-180 for facilities, and WAC 173-184 and WAC 317-40 for vessels.

Does this rule apply to my vessel?

Any vessel *delivering* oil in bulk to a non-recreational vessel or facility on or over Washington waters must meet the requirements of WAC 173-184 and, if engaged in bunkering a covered vessel, also the requirements of WAC 317-40. Covered vessels are defined in RCW 88.46.010.

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 vessel's size, but instead on its use.

Does this rule cover all oil types?

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 vessel need to pre-boom every oil transfer?

All delivering vessels must pre-boom a **Rate A** transfers (see definition of **Rate A** transfer below) when it is safe and effective to do so. When transferring at **Rate B**, the vessel may choose to either pre-boom or use alternative measures. When it is NOT safe and effective to pre-boom, the delivering vessel must meet the alternative measure requirements briefly described in the **Alternative Measures** section below and more fully described in WAC 173-184-115 and 120 and the ***Pre-Booming Guidance Manual*** provided by Ecology. Additionally, delivering vessels conducting **Rate A** transfers at sites other than Class 1 facilities must refer to the delivering vessels "safe and effective" threshold values to determine when to use alternative measures. Vessels delivering oil to a Class 1 facility must use the safe and effective threshold values provided by the facility's operations manual.

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

A vessel 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 stay within those boundaries during the transfer operation.

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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 vessel 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, other than Class 1 facilities, the vessel conducts **Rate A** transfers. **Vessels transferring to Class 1 facilities will use the safe and effective threshold values in the facility's operations manual.**

For each location (other than a Class 1 facility) the vessel will conduct **Rate A** transfers, the owner or operator must submit a ***Safe and Effective Threshold Determination Report*** to Ecology for review and approval. 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 vessel must also take into account the safety of the personnel involved in the possible pre-booming deployment. Report requirements may be found in WAC 173-184-130. 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.**

I am going to transfer at Rate A. What are my pre-booming requirements?

All **Rate A** transfers must be pre-boomed if it is safe and effective to do so. Prior to a **Rate A** transfer, the delivering vessel must have access to boom four times the length of the largest vessel involved in the transfer or 2000 feet, whichever is less. Boom must be deployed with a five foot stand-off around the vessel(s) and/or facility dock area, in a configuration which maximizes the containment effectiveness. For transfers with unique environmental considerations, the deliverer may pre-boom the portion of the vessel(s) and transfer area which will provide for maximum containment of any oil spilled into the water. (See sidebar)

Pre-Booming

Pre-booming a transfer means completely surrounding the vessel(s) and/or facility dock area directly involved in the oil transfer operation. The rule allows flexibility for vessels delivering oil in specific environments, such as rivers. In environments where spilled oil will always travel in one direction, for instance in a river situation, the delivering vessel must boom to provide for maximum containment of *any oil* spilled. This means that in this situation the delivering vessel may boom on the down-river side of the transfer. Delivering vessels 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.

All boom and related equipment must be of the appropriate size and design for the environmental conditions at the site based on the manufacturer's specifications. In the event of an emergency, the delivering vessel 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 Rate A pre-booming requirements refer to WAC 173-184-115 and the ***Pre-Booming Guidance Manual***.

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

All delivering vessels must begin pre-booming **Rate A** transfers within 365 calendar days from the effective date of this rule. This means vessels must ensure all **Rate A** transfers meet all the pre-booming requirements in WAC 173-184-115 on or before October 26, 2007.

What are the alternative measures I must use if it is not safe and effective to pre-boom my Rate A transfer?

For a **Rate A** oil transfer a delivering vessel 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 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 vessel 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/or facility 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.

I am going to conduct a Rate B transfer. What are my pre-booming requirements?

Rate B transfers are not required to be pre-boomed. A delivering vessel conducting a **Rate B** transfer may choose to either pre-boom the transfer or employ alternative measures. If pre-booming is chosen, the vessel must have access to enough boom to completely surround the vessel(s) 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. For additional pre-booming requirements refer to WAC 173-184-120 and the ***Pre-Booming Guidance Manual***.

I am going to conduct a Rate B transfer. What are my alternative measures requirements?

For a **Rate B** transfer the vessel must ensure:

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

Should a spill occur the vessel must ensure:

- Within one hour of notification of a spill, 500 feet of boom can be deployed for containment, protection and recovery; and

- Within two hours of notification of a spill, an additional 500 feet of boom is available on scene for containment, protection and recovery.

What is the compliance date for meeting Rate A and Rate B alternative measures requirements?

All vessels must meet the alternative measures requirements within 120 days from the date the rule goes into effect. That means all vessels transferring at either **Rate A** or **Rate B** must meet the alternative measures in WAC 173-184-115 and 120 by February 25, 2007.

My vessel operates in unique environments and I have an innovative way to address spill containment and recovery. May I submit an Equivalent Compliance Plan proposal to Ecology?

Any vessel may submit an Equivalent Compliance Plan proposal for the rule's alternative measures requirements. These plans are intended to allow flexibility for vessel owners and operators to develop innovative approaches to counter environmental peculiarities in their transfer locations. Until the Equivalent Compliance Plan has been approved, the vessel must meet the pre-booming or alternative measures 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 173-184-105.

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

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

Notifications: OilTransferNotifications@ecy.wa.gov