

Oil transfer rules keep state waters protected

In September 2006, Washington Department of Ecology (Ecology) adopted stringent oil transfer rules as directed by state lawmakers. These rules were in response to a 4,700 gallon heavy fuel oil spill during an oil transfer operation at Chevron-Texaco's Richmond Beach marine oil terminal in December 2003. Swift currents drove the spilled oil ashore on the Suquamish Tribe shellfish beds at Doe-kag-wats beach and salt marsh at Indianola in Kitsap County. *(Photo above right)*

In 2008, nearly 15 billion gallons of oil, as crude or refined product, were transferred over Washington waters between ships, and oil handling facilities, or tank trucks.

That's a staggering 1.7 million gallons pumped over water each hour!

Since October 2006, when the rules partially came into effect, Ecology has seen reductions in the number of spills and amount of oil spilled to surface waters. In 2008, only about 158 gallons spilled to Washington waters during oil transfers.

Ecology recognizes Puget Sound is an ecosystem in trouble and no spills are acceptable. The Legislature acknowledged this by setting a "zero spills" goal for the state.

The economic and environmental consequence of a major oil spill today is potentially greater than ever given the designation of several species as threatened and endangered, the cultural value of tribal lands and private property values, and our economy's heavy reliance on Pacific Rim trade, recreation, sport and commercial fishing, aquaculture and tourism. All of these rely foremost on effectively preventing spills from happening at all, and then limiting the impact of any spills that do occur.



WHY IT MATTERS

It is just over a year since the Washington state oil transfer rules came into full force. They have had an exceptional positive impact in preventing and mitigating oil spills from the nearly 15 billion gallons of oil transferred over our waters each year.

The consequence of a major oil spill is greater today than ever before and it has been determined that when containment boom is in the water or can be quickly deployed, oil recovery increases substantially.

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The state regulations apply to anyone delivering oil over the water such as:

- Oil tankers and fuel barges
- Certain fishing, cargo, passenger ships, and other non-recreational vessels over 300 gross tons
- Oil storage facilities and refineries
- Marinas fueling non-recreational vessels
- All mobile fuel transfers from tank trucks and railcars



The rules require vessels delivering oil to provide up to four hours advance notice, and oil handling facilities such as refineries, refueling terminals, as well as mobile oil transfers from tank trucks and railcars must provide up to 24-hour advance notice, whenever they transfer more than 100 gallons of oil over state waters.

Last year Ecology received 15,111 advance notices of oil transfer reports, which is about twice as many as originally anticipated when the rules went into effect. The rules do not apply to vessels transferring fuel internally from one tank to another such as the recent spill that occurred on the Catherine Quigg near Eagle Harbor in Kitsap County on Feb. 3, 2009.

Ecology determined that high-rate oil transfers over water present a significant risk of a sizeable oil spill occurring, and the impacts could be reduced if they were pre-boomed. The rules included pre-booming these high-rate oil transfers and gave affected oil deliverers a year to craft and implement approved plans to comply with the new pre-booming measure.

Pre-Booming Works!

Beginning in October 2007, all vessels delivering oil and the state's 23 major land-based, large-volume oil handling facilities were required to deploy boom around the vessel and dock area before starting oil transfers at rates greater than 500 gallons per minute. All 23 major oil handling facilities submitted operations manuals and identified safe and effective threshold values for boom deployment for review and approval. Ecology has approved these documents and the pre-booming systems put into place to help ensure adequate safety and protection during oil transfers.

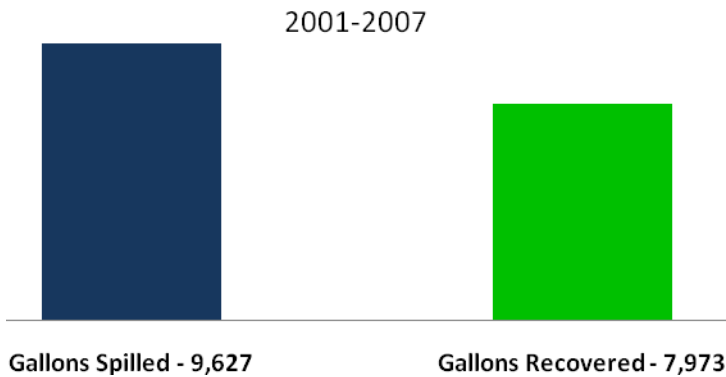
The pre-booming requirements cover most petroleum and bio-fuel products such as crude oil, diesel and bio-diesel fuel, and heavy fuel oils. For safety reasons, the most highly volatile oils (i.e. easily vaporized and flammable), like gasoline and aviation gas, are exempt from pre-booming.

Pre-booming is known for effectively trapping and containing spilled oil which:

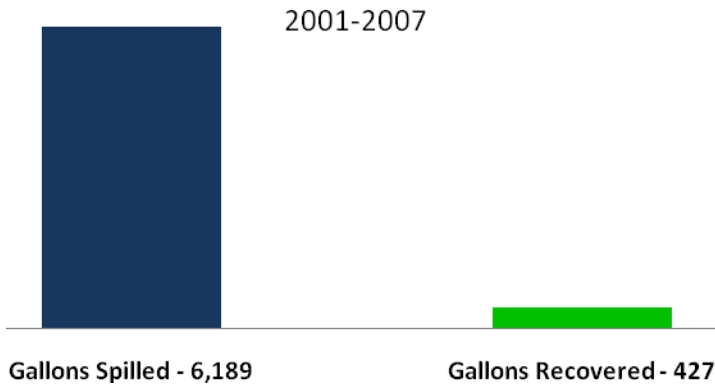
- Reduces adverse environmental impacts;

- Reduces response time and cleanup costs;
- Reduces economic impacts on the communities where a spill occurs; and
- Greatly improves the amount of oil recovered – over 75 percent more. *(See charts below.)*

**Oil Recovered When Operation Pre-Boomed
& Spills Immediately Boomed**



**Oil Recovered When Operation
& Spills Not Boomed**



Class 1 Oil Handling Facilities Have Stepped Up To Protect Our Waters

Since the inception of this requirement in 2007, almost 80 percent of all high-rate transfers required to be pre-boomed throughout the state were pre-boomed.

This is an exceptional overall compliance rate considering the great variability in weather and currents that often make pre-booming difficult or unsafe. It is even more noteworthy that nearly 90 percent of the oil transfer operations subject to the pre-booming rules in Puget Sound are

being pre-boomed. Even operations on the Columbia River, where fast currents make booming most difficult have steadily improved booming methods to enhance resource protection under these difficult conditions. These efforts are great news for the state's efforts to better protect Puget Sound and other waters of the state.

Given the wide range of environmental and operating conditions that exist at oil transfer locations across the state, when conditions make it unsafe or ineffective to pre-boom, operators must still have back-up or "alternative measures" in place to most rapidly respond to a spill. This has proven to be a secondary benefit, insuring more response resources are available around the state.

New Oil Transfer Inspectors and Ecology's Vessel Inspector Cadre Provide Exceptional Experience and Oversight

To support the new rules Ecology also expanded its oil transfer inspection program and stationed six new inspectors at its Bellingham, Bellevue, Vancouver and Lacey offices to augment the existing cadre of vessel inspectors. The inspectors provide technical assistance that help companies better comply with the rules. Last year, Ecology's eleven inspectors conducted 1,491 oil transfer inspections; that's roughly 10 percent of all reported transfers.

Ecology is committed to preventing spills from happening in the first place because prevention is the best tool for preserving state waters. The department screens vessels entering Washington waters for potential risks that may lead to a spill.

In 2008, agency inspectors boarded 1,110 vessels and performed 2,546 vessel and



facility inspections. In addition, they held 539 unannounced spill notification drills. Ecology continues to test the shipping industry's ability to make the proper calls to state and federal authorities if they have a spill – keeping any environmental impacts to a minimum.

Ecology investigates all significant oil spills and near miss incidents to determine cause and provide lessons learned to prevent repeating mistakes of the past.

These investigations are the most critical feedback link for assessing the effectiveness of our inspections, our regulations, and efforts of industry.

Other Provisions to Better Protect Against Spills

The rules also put 21 fuel truck delivery firms under Ecology's oversight ensuring they safely conduct oil transfers, and meet specific spill-response equipment and prevention standards. These mobile facilities transfer oil at less than 500 gallons per minute and have less stringent response protection requirements. Typically, these lower rate transfers are not required to be pre-boomed if equivalent alternative

protective measures are immediately available and ready to deploy.

Operators developed standards addressing how they prevent spills, improved communications, addressed personnel safety, wind, sea state, and current conditions for the unique characteristics of the specific location where oil is transferred.

Additional requirements for the regulated facilities include:

- Pre-transfer conference
- Providing safe vessel access
- Preloading or cargo transfer plan
- Open communications during transfers
- Oil transfer procedures
- Emergency shutdown
- Oil transfer training
- Equipment maintenance

Under Ecology's new regulations, marinas and small fueling facilities that transfer oil to non-recreational vessels with a total oil capacity less than 10,500 gallons are considered Class 4* facilities and are subject to Ecology inspections as well.

Non-recreational vessels are vessels used for commercial purposes or monetary gain.

Examples include sightseeing or tour boats, passenger vessels, chartered fishing boats, boats used for parasailing, tugboats, or state or federally owned public vessels, etc. This definition is based on a vessel's use, not its size.

The oil transfer rules *do not* apply to marine fueling stations that exclusively serve recreational vessels. Recreational vessels are vessels owned and operated only for pleasure with no monetary gain involved.

Types of recreational vessels include houseboats, ski boats, and other small craft under a rental or lease agreement.

Other new rules increase the State's authority to assess natural resource damages caused by an oil spill by increasing the ceiling amount from \$50 to \$100 per gallon. This new ceiling is intended to better compensate Washington residents for the true cost of injuries to state natural resources caused by an oil spill.

Ecology's investment in preventing and preparing for spills has paid great dividends for the citizens of Washington and it's critical we remain vigilant and maintain our successful track record preventing oil from spilling in the first place.

Definitions of Facility Classes

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.

Quick Oil Transfer Facts for 2008

- 14.75 billion gallons of oil were transferred over Washington waters.
- 1.7 million gallons an hour were transferred over state waters.
- 7.1 billion gallons of crude oil made its way by ship to Washington refineries.
- More than 15,000 Advanced Notice of Oil Transfers were reported to Ecology.
- 5,004 of the 15,000 Advanced Notice of Oil Transfers were required to be pre-boomed.
- 10.8 billion gallons or 73 percent of all oil transferred over Washington waters was required to be pre-boomed.
- Nearly 80 percent of those affected oil transfer operations were pre-boomed as required by their safe and effective thresholds.
- Ecology inspected 10 percent of all oil transfers.

The Oil Transfer Rules can be found under the Washington Administrative Code (WAC) 173-180 and 180-184.