



Washington State Department of Ecology

Spill Prevention, Preparedness and Response Program

Revised Small Business Economic Impact Statement for Proposed Oil Transfer Rules

Prepared for

**State of Washington Department of Ecology
Spill Prevention, Preparedness, and Response Program
PO Box 47600
Olympia, WA 98504-7600**

By

**Northwest Economic Associates
12009 N.E. 99th Street, Suite 1410
Vancouver, WA 98682-2497**

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Executive Summary

The Spill Prevention, Preparedness and Response Program of the Washington State Department of Ecology is proposing revisions to the rules governing oil transfer operations that occur over state waters. The proposed rule changes will create standards for safe oil transfer operations as a strategy to meet a zero spill goal established by the Washington State legislature. The rules proposed in WAC 173.180, and 173.184 introduce new oil transfer standards that focus on preventing spills, preventing the spread of oil in the event of a spill by pre-booming oil transfers, and ensuring a rapid and effective response capability of the delivering facility or vessel in the event of a transfer related oil spill.

Since the proposed rules will impose more than minor costs on businesses, a Small Business Economic Impact Statement (SBEIS) is required by law (RCW 19.85.030). This study has been developed to analyze the compliance costs of the proposed rule to small and large businesses, in order to determine whether small businesses will bear a disproportionate share of these costs.

The analysis in this SBEIS compares the cost of compliance per employee between large and small businesses that are involved in over-the-water oil transfers. Based on the number of employees, five oil refineries classified as Class 1 facilities provide a cost basis for the analysis. The number of employees in each of these operations is over 300. Establishments within Class 2, Class 3, and Class 4 facilities make up the small business category, with an average of nine employees. One vessel company is also among the small businesses affected.

The average annual statewide compliance costs for the five largest companies is just over \$5.5 million, with a cost per employee of \$3,241. The compliance cost per employee for small businesses is \$1,455, or about 45 percent of the per employee cost of refineries. Therefore, since the potential compliance cost per employee in the small facilities is about 55 percent less than those in the five large refineries, the impact of the proposed rule is not likely to impose a disproportionate burden on small businesses compared to large companies. However, four small businesses are expected to pay per employee costs greater than the refineries.

Section I - Introduction

Background

The Spill Prevention, Preparedness and Response Program of the Washington State Department of Ecology (Ecology) is proposing revisions to the rules governing oil transfer operations that occur over state waters. The proposed rule changes will create standards for safe oil transfer operations as a strategy to meet a zero spill goal established by the Washington State legislature. Since the proposed rules will impose more than minor costs on businesses, a Small Business Economic Impact Statement (SBEIS) is required by law (RCW 19.85.030). This study has been developed to analyze the compliance costs of the proposed rule to small and large businesses, in order to determine whether small businesses will bear a disproportionate share of these costs.

Objective of the SBEIS

The objective of the SBEIS, as established in RCW 19.85.040, is to identify and evaluate the various requirements and costs that the rule might impose on businesses. In particular, the purpose is to determine whether a disproportionate impact of the compliance costs is borne by the State's small businesses. The legislative purpose of the Regulatory Fairness Act (RCW 19.85) is set out in RCW 19.85.011:

“The legislature finds that administrative rules adopted by state agencies can have a disproportionate impact on the state's small businesses because of the size of those businesses. This disproportionate impact reduces competition, innovation, employment, and new employment opportunities, and threatens the very existence of some small businesses. The legislature therefore enacts the Regulatory Fairness Act with the intent of reducing the disproportionate impact of state administrative rules on small business.”

The specific purpose of the SBEIS is identified in RCW 19.85.040:

“A small business economic impact statement must include [1] a brief description of the reporting, recordkeeping, and other compliance requirements of the proposed rule, and [2] the kinds of professional services that a small business is likely to need in order to comply with such requirements. [3] It shall analyze the costs of compliance for businesses required to comply with the proposed rule adopted pursuant to RCW 34.05.320, including costs of equipment, supplies, labor, and increased administrative costs. [4] It shall consider, based on input received, whether compliance with the rule will cause businesses to lose sales or revenue. [5] To determine whether the proposed rule will have a disproportionate impact on small businesses, the impact statement must compare the cost of compliance for small business with the cost of compliance for the ten percent of businesses that are the largest businesses required to comply with the proposed rules using one or more of the following as a basis for comparing costs:

- (a) Cost per employee;
- (b) Cost per hour of labor; or
- (c) Cost per one hundred dollars of sales.

(2) A small business economic impact statement must also include:

(a) [6] A statement of the steps taken by the agency to reduce the costs of the rule on small businesses as required by RCW 19.85.030(3), or reasonable justification for not doing so, addressing the options listed in RCW 19.85.030(3);

(b) [7] A description of how the agency will involve small businesses in the development of the rule; and

(c) [8] A list of industries that will be required to comply with the rule. However, this subsection (2)(c) shall not be construed to preclude application of the rule to any business or industry to which it would otherwise apply.”

For purposes of the SBEIS, the terms “business”, “small business”, and “industry” are defined by RCW 19.85.020:

(1) "Small business" means any business entity, including a sole proprietorship, corporation, partnership, or other legal entity, that is owned and operated independently from all other businesses, and that has fifty or fewer employees.

(2) "Small business economic impact statement" means a statement meeting the requirements of RCW 19.85.040 prepared by a state agency pursuant to RCW 19.85.030.

(3) "Industry" means all of the businesses in this state in any one four-digit standard industrial classification as published by the United States department of commerce.

Summary of Proposed Rule Changes

The proposed rule changes will affect both facilities and vessels that transfer oil over the navigable waters of Washington State. New requirements will apply to each of five different affected business types: refineries and other large oil handling facilities, marine fueling terminals, mobile facilities, marinas, and vessels. Facilities are broken out into four different classes:

Class 1: Large oil handling facilities,

Class 2: Mobile facilities

Class 3: Marine refueling terminals

Class 4: Marinas

Most of these sectors are currently complying with federal regulations enforced by the U.S. Coast Guard, and with existing State regulations. The federal regulations (46 U.S. Code) were strengthened by the Oil Pollution Act of 1990 requiring greater numbers of personnel for oil transfers, and 33 Code of Federal Regulations (CFR) requiring more and stronger steps be taken to prevent oil spills by commercial handlers and shippers of oil products. Parts 154, 155, and 156 of 33 CFR apply to vessels and facilities that conduct bulk oil or hazardous material transfers. These rules provide flexibility for the Coast Guard Captain of the Port to impose additional requirements depending on port-specific needs. These regulations define the standards for safe oil transfer that include topics such as transfer procedures, emergency shutdown, transfer restrictions, communication, watch-standers, recordkeeping, personnel qualifications, advance notice of transfers, and transfer containment and response standards.

In general, all oil transfers that occur at greater than 500 gallons per minute (gpm) are termed Rate A transfers, while lower speed transfers are termed Rate B. Under the proposed rule change, pre-booming will now be required for all Rate A transfers, as long as it is both safe and effective to do so. This will include a majority of the transfers at Class 1 facilities and most vessel to vessel transfers. If it is not safe and effective to do so, different vessel and facility classes will need to be meet alternative measures that require containment and recovery equipment to be readily available. In all cases, personnel conducting transfers will need to have appropriate training in oil transfer safety, hold pre-transfer conferences, and ensure that loading procedures and adequate communication between vessel and facility is established prior to and during a transfer. Furthermore, for Rate A transfers deliverers must develop and submit for approval to Ecology the threshold environmental determining factors for each location. This threshold analysis will be used to determine whether or not it is safe and effective to pre-boom.

Rate B transfers will need to either comply with the pre-booming as described in the new regulation, or with the alternative measures outlined therein. In general, the alternative measures involve having boom available to be deployed, and all equipment needed to deploy and clean up a spill if one occurs.

All affected parties will also have the option to develop plans to achieve equivalent compliance with respect to the alternative measures used when pre-booming is safe and effective. A plan for equivalent compliance is submitted to DOE for approval and will then replace regulation requirements for the alternative measures portion of the rule to those entities who submit plans.

The goals of the Washington State Legislature are to prevent all spills from occurring and to have the best possible response in place in the event of a spill, regardless of facility class or business size. Because small businesses are held to the same standard as large businesses, this initiative places the same compliance burden on large businesses as small businesses. However, as discussed in Section IV below, Ecology has taken measures to graduate the

burden of compliance on small businesses. It is emphasized that these businesses have not been regulated previously.

Industries Required to Comply

The only industries to which these rules will apply are those involved in over-the-water transfers. The rule proposed for facilities in WAC 173.180 categorizes facilities engaged in over-the-water transfers into four Classes. Table 1 identifies these Classes and provides brief descriptions of the kinds of industries that comprise each Class. A brief description of firms affected by the proposed vessel rule (WAC 173.184) is also shown in the table.

**Table 1
Industries Affected by Proposed Regulations**

Category	Category Name	Description	Number of Firms	Number of Employees per Firm
Class 1	Refineries	Firms that operate oil refineries within the state	5	> 300
	Non-refinery Facilities	Large industrial plants such as pulp and paper mills, fuel distributors, and some marine fueling terminals that receive fuels via pipelines	25	7-600
Class 2	Mobile Facilities	Mostly mobile tank trucks	35	12
Class 3	Marine Fueling Terminals	Facilities that provide fueling services to fishing vessels and other smaller commercial vessels	3	21
Class 4	Marinas	Small marinas and dock	approx. 80	7
Vessels	Vessels	Typically barges that transport oil products to and from terminals and refineries	5 ¹	38-120

Oil transfer activities from Class 2, 3, and 4 facilities have not previously been regulated by the Ecology, so the introduction of new regulations presents new costs to these businesses. Transfer operations of Class 1 Facilities and Vessels have been regulated at both Ecology and Federal level for many years now (e.g. Oil Pollution Act of 1990). Because these facilities

¹ There are five major companies that regularly deliver oil products to facilities and other vessels and these will be primarily affected. Several other vessel firms may also be affected such as shipping firms that refuel, and tankers that deliver crude to refineries. Tankers are not expected to experience costs because it is assumed that the compliance of Class 1 refineries will provide the compliance associated with tanker activity. Shipping firms may indirectly experience costs but the costs are expected to be covered by the firms delivering the fuel.

have already been exposed to extensive regulations, they are assumed to be in a position to respond to additional regulations more readily as compared to a newly regulated facility class. For example, Federal regulations establish a baseline for the required length of boom for most Class 1, 2 and 3 facilities, and the State's regulations only increase the length of boom. However, Class 2 facilities that transfer to vessels with a capacity of less than 10,500 gallons have operated without the requirement to have any boom in the past and is now confronted with a new cost.

Methods of Analysis

This analysis compares the cost of compliance per employee between large and small businesses involved in over-the-water transfers, in order to determine whether small businesses will bear a disproportionate share of these costs. Based on the number of employees, the five refineries in Class 1 are considered the largest businesses in this analysis. Small businesses, including those from all facility classes are aggregated, and the total per employee cost is compared with that for the largest businesses to assess whether or not a disproportionate impact is expected for small businesses. Since the majority of Class 1 "non-refineries" are not independent, this category presents a mixed bag of companies. Therefore, this class is excluded from the analysis in order to avoid discrepancies in the results.

Contents of the Document

The proposed oil transfer rules developed through this rulemaking process are evaluated further in the following sections as required in RCW 19.85. **Section II** discusses the compliance costs for businesses in Washington. The section provides (1) a brief description of the reporting, record keeping, and other compliance requirements, (2) the kinds of professional services that a small business is likely to need in order to comply, (3) the costs of compliance for businesses required to comply with the proposed rules, including costs of equipment, supplies, labor, and increased administrative costs, and (4) whether compliance with the rules will cause businesses to lose sales or revenue. **Section III** evaluates (5) whether the proposed rules will have a disproportionate impact on small businesses. **Section IV** considers (6) actions taken to reduce the impact of the rules on small businesses. **Section V** addresses (7) how small businesses were involved in the rule making process.

Section II - Compliance Costs for Washington Businesses

The majority of costs associated with the proposed regulations will be borne by the largest firms, those that operate oil refineries within the State (Class 1 "Refineries"). In most cases, the initial costs are associated with establishing a full-circle permanent boom at the dock that can be operated on a regular basis. Costs include such associated items as boats to maintain

the boom, dock lighting, and other equipment. The boom operation will also incur additional costs due to the labor required to conduct pre-booming. In subsequent years, this extra labor plus equipment maintenance comprise the majority of additional costs.

Non-refinery facilities within Class 1 include large industrial plants such as fuel distributors, pulp mills, and some marine fueling terminals that receive fuels via pipelines. These facilities are expected to respond to the regulations in one of three ways depending on a variety of factors: (1) reduce the pumping rate below 500 gallons per minute which would avoid the requirement to pre-boom, require the facility to provide response containment, recovery equipment and the personnel in-house at the facility in case of a spill; (2) provide pre-booming equipment and personnel in-house at the facility; or (3) contract an oil spill response organization (OSRO). If an OSRO is used, it is assumed that a typical transfer would cost approximately \$2,500 on average for the services of the OSRO to pre-boom.

Mobile tank trucks (Class 2 facilities) are expected to pool resources and share the costs of equipment purchases, so that boom will be available at docks where mobile trucks fuel ships. Some firms are expected to comply via in-house provision of a “runner” truck that will carry boom to the transfer dock, and have the driver of the runner truck be trained to meet the new requirements. The latter is a more expensive option.

Facilities that meet Class 3 standards are expected to experience additional costs associated with either pre-booming or having boom readily available. These facilities provide fueling services to fishing vessels and other smaller commercial vessels. There are four firms identified so far in this category in the State of Washington. Class 4 facilities are the many marinas that typically fuel recreational vessels and some smaller commercial and public boats.

The primary compliance costs of the vessel regulation are associated with pre-booming during vessel to vessel bunkering and lightering operations. Compliance costs to tugs and barges that transport oil products to and from terminals and refineries are primarily covered in the costs estimated for facilities, as most transfers in this industry are between a facility and a tank barge or tank ship. It is assumed that a firm that conducts a large number of bunkering operations at sea will provide compliance in-house at a significant cost. However, most firms that bunker or lighter irregularly are expected to comply with the new regulations via the assistance of an OSRO.

In accordance with RCW 19.85, a discussion of required cost categories is provided below:

Reporting and Recordkeeping: The additional recordkeeping/reporting rules are not expected to generate substantial additional costs to facility or vessel businesses.

Additional Professional Services: Some businesses that will be required to pre-boom all transfers will contract firms that specialize in oil spill recovery and response (OSRO) for

compliance. OSROs perform all necessary measures for a business to be in compliance during a transfer.

Compliance Costs: All facility and vessel businesses are expected to incur new costs in equipment compliance. Some facilities, with the exception of Class 4 facilities, may require additional employees to operate in compliance. Additional labor represents the greatest cost for all facility and vessel businesses. No additional administrative costs are anticipated for any facility or vessel business.

Loss of Revenues: It is possible that several types of businesses could lose sales as a result of the regulation. For example, if facilities within the Class 2 and Class 3 sectors pass the cost of complying with the regulation onto their customers, fueling may become more desirable in other locations such as Oregon or Canada. Some of these facilities service the resident fishing boat fleet in Puget Sound. Typically, these fishing vessels are all small family businesses and are already vulnerable to a great deal of economic variability due to the uncertainty in fish populations and weather. Furthermore, they form a key link in the economic chain formed by the seafood industry in Seattle, which is one of the largest in the country.

The vessel to vessel bunkering industry may also lose revenue if container ships and others elect to refuel in other states or countries rather than pay the additional costs. In the Columbia River, it is quite possible that Oregon water bunkers will be preferred to Washington not only due to additional costs, but also additional time associated with pre-booming. In Puget Sound, many of the large ships have fuel capacities such that they may opt to refuel in Asia as opposed to paying additional costs. Such impacts may have additional impacts in terms of lay-offs within the fueling industry. The vessel cargo industry may also lose revenue if over water transport becomes too costly due to the increased costs of booming at facilities that do not provide in-house compliance.

Average costs for each sector described are presented in Table 2 below.

Table 2
Summary of Expected Costs to
State of Washington from Proposed Oil Transfer Regulations

Affected Group	Number in State	Average Annual Costs per Firm	Average Annual Statewide Costs
Class 1 Facilities <i>(Refineries)</i>	5	\$1,101,856	\$5,509,279
Class 1 Facilities <i>(Other Large Facilities)</i>	12	\$115,752	\$1,389,025
Class 2 Facilities <i>(Mobile Tank Trucks)</i>	35	\$29,423	\$1,029,821
Class 3 Facilities <i>(Marine Fueling Terminals)</i>	3	\$72,204	\$216,612
Class 4 Facilities <i>(Marinas)</i>	80	\$1,864	\$149,088
Vessels	5 ²	\$287,651	\$1,438,254

Section III - Analysis of Proportionate Impact on Small Businesses

The analysis of proportionate impact is based on the costs of compliance relative to the number of employees at the facility. The largest businesses affected by the oil transfer rules are the five Class 1 oil refineries. These refineries each employ an average of three-hundred employees. The same companies representing the refineries also own some of the other Class 1 non-refinery facilities, and the rest of the firms in this sector are also expected to be large firms. Four of the five vessel companies are also expected to be large firms, employing more than 50 people.

Many small businesses are expected to be affected by the regulations. Firms within Class 2, Class 3, and Class 4 make up the small business category. The mean number of employees among all small operations is eight. Within the Class 2 facilities, 25 percent, or nine of the 35 firms are assumed to be integrated with large companies, and so just 26 firms are included in

² There are five major companies that regularly deliver oil products to facilities and other vessels and these will be primarily affected. Several other vessel firms may also be affected such as shipping firms that refuel, and tankers that deliver crude to refineries. Tankers are not expected to experience costs because it is assumed that the compliance of Class 1 refineries will provide the compliance associated with tanker activity. Shipping firms may indirectly experience costs but the costs are expected to be covered by the firms delivering the fuel.

the analysis. Among the vessel companies, only one is a small business and therefore included in this analysis.

Table 3 below demonstrates the cost on a per employee basis, and it is noted that Class 3 Facilities bear the closest equivalent cost burden to a large business. Ecology was aware that the vast majority of Class 2, 3 and 4 Facilities were performing transfers at less than 500 gallons per minute, and structured the rules accordingly to reduce the burden of compliance on these businesses, as is discussed in Section IV under the Cost Reducing Features. This is reflected in Table 4; where small businesses are viewed as a collective group operating in the State, it is apparent that the overall impact to small businesses operating in Washington is substantially lower than the impact of the regulations of large businesses.

Table 3
Cost per Employee for Each Individual Facility Class

Sector	Number of Firms	Average Employees per Firm	Statewide Total Employment	Sector Compliance Cost	Cost per Employee	Percent of Large Business Costs per Employee
Class 1	5	340	1700	\$5,509,279	\$3,241	100%
Class 2	26	12	312	\$765,010	\$2,452	76%
Class 3	3	21	63	\$216,612	\$3,438	106%
Class 4	80	7	560	\$149,088	\$266	8%
Vessels	1	45	45	\$287,651	\$7,191	222%

The Department of Ecology adopted a graduated, or performance standard based regulatory approach to oil transfer regulation. The businesses that transfer at higher rates and pose higher risks of spills bear a greater percentage of the cost burden compared to those that transfer lesser quantities of product. Although only three Class 3 businesses are known to be operating in the State, these facilities are responsible for transferring a large quantity of product in the state, and therefore this risk is reflected in their burden of compliance. The one vessel company that is a small business bears the greatest cost per employee burden of any other group. However, were other groups to be reviewed on a single firm basis, it is expected that per employee costs will vary greatly depending on the type of market that each firm targets, the location of firm, and the ability to develop cost-effective solutions. Further, the ability to pass along costs to customers without losing business will determine the true impacts to revenue and viability of each affected firm.

Table 4 presents the average cost per employee for the large refineries and other small businesses involved in over the water oil transfers. The average annual statewide compliance

costs for the five largest companies is just over \$5.5 million, with a cost per employee of \$3,241. The compliance cost per employee for small businesses is \$1,455, about 45 percent of the per employee cost for refineries.

**Table 4
Costs per Employee
in Large and Small Businesses**

Sector Classes	Number of Firms	Employees per Firm	Total Employment	Sector Compliance Cost	Cost per Employee	Percent of Large Costs per Employee
Large	5	340	1,500	\$5,509,279	\$3,241	100
Small	110	8.9	975	\$1,418,360	\$1,455	45

Based on this analysis the potential compliance costs per employee in small firms are about 55 percent less than that of the largest firms. Thus, the impact of the proposed rules is not likely to be disproportionately larger for small businesses than for large when measured on a cost per employee basis.

Section IV – Cost Reducing Features

RCW 19.85.030 requires that the following methods to reduce costs be used if it is legal and feasible to do so. The bulleted items below fall into one of each of the listed categories (a) through (f) except that it is not possible to reduce or modify the fee schedule.

- (a) Reducing, modifying, or eliminating substantive regulatory requirements;
- (b) Simplifying, reducing, or eliminating record keeping and reporting requirements;
- (c) Reducing the frequency of inspections;
- (d) Delaying compliance timetables;
- (e) Reducing or modifying fine schedules for noncompliance; or
- (f) Any other mitigation techniques.

The cost-reducing features are laid out by rule features that meet one of the above criteria. The following are areas where savings can be gained over the current rules:

- When modeling the rules, Ecology separated regulations by Class 1, 2, 3, and Class 4 facilities, with lesser regulatory requirements for facility classes comprised of smaller businesses.
- Facilities and vessels performing transfers at a rate less than 500 gallons per minute (Rate B) were allowed to choose their method of compliance by either prebooming all transfers, or complying by alternative measures described.
- The set of regulations for Class 4 Facilities (as the smallest businesses affected) are substantially less demanding in comparison to the requirements for the other facility classes.
- Use of a performance standard according to the operations of each business by requiring that each business have “access to boom sufficient to completely surround the vessel(s) and facility/terminal dock area directly involved in the oil transfer operation” [WAC 173-180-222]. This standard provides relief to businesses that transfer to/from smaller vessels an assumed lesser quantity of product.
- As a final measure, the proposed rules include a clause that allows for businesses to submit an Equivalent Compliance Plans to Ecology [WAC 173.180.070]. This clause reflects the flexibility of compliance that allows burden to be assessed on a case by case basis.

Section V - Description of How Agency Involved Small Businesses

Ecology communicated regularly with affected small businesses and distributed early versions of the draft rules to various organizations and businesses. Electronic correspondence with interested parties was established early in the rule development process in order to maintain communication. Ecology remained in regular contact with Class 3 Facility owners, and met individually with these businesses. Through the process, Class 4 Facilities were informed about the proposed regulations and were given the opportunity to comment. As part of the economic analyses, numerous small businesses were contacted about potential compliance costs. Interviews were conducted with these facility owners and managers and the information collected provided the basis for cost estimates. Additionally, representatives of small businesses, as well as business owners themselves, were members of the Oil Transfer Rule Advisory Committee that provided input into the development of the rules.