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ECOLOGY
State of Washington

Small Business Economic Impact Statement

Chapter 173-360 WAC
Underground Storage Tank Regulations

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Small Business Economic Impact Statement

Chapter 173-360 WAC
Underground Storage Tank Regulations

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Executive Summary

The Washington State Department of Ecology (Ecology) is proposing amendments to Chapter 173-360 WAC, Underground Storage Tank Regulations (UST rule). The main features of these proposed rule amendments include conditions and requirements for:

- Delivery prohibition.
- Operator training and retraining.
- Secondary and under-dispenser containment.

The probable quantifiable compliance costs likely resulting from the proposed rule amendments are provided in the table below.

Ecology calculated costs of the overall program components to be able to compare them with likely benefits (in the associated Cost-Benefit Analysis, Ecology publication #12-09-043), in addition to the costs specifically associated with requirements in which Ecology had sole discretion.

Ecology calculated cost-to-employment ratios to examine the relative impacts of the proposed rule amendments on small versus large businesses. Ecology also considered the impacts of the proposed amendments on local governments and other small public entities, to meet the requirements in the Governor's Executive Order 10-06.[1] Ecology was not able to get sufficient data for other measures (sales, hours of labor) often used to identify a business's ability to cope with compliance costs for the representative set of affected businesses.

When comparing the per-employee costs of compliance with the proposed rule amendments, for overall program costs, Ecology found that, as expected, with a constant cost range per-facility, the largest businesses experience the lowest per-employee costs (24 cents), and the smallest businesses experience the highest per-employee costs (nearly $26 thousand). Adjusted for discretion-specific costs where possible, this cost range shifted to $0.01 - $25 thousand. These costs represent per-employee total costs over 20 years, i.e., they include current and future costs, in present values.

Grouping businesses by under versus over 50 employees allowed Ecology to calculate that small businesses, on average, could pay $256 – $8,839 per employee, in compliance costs for the overall program, while large businesses could pay an average of $6 – $140 per employee. Adjusted for discretion-specific costs where possible, these ranges shift to 6 – $8,264 per employee at small businesses, and $0.15 – $340 per employee at large businesses. These costs represent per-employee total costs over 20 years, i.e., they are current and future costs, in present values.

Ecology performed this comparison because the largest ten percent of businesses possibly affected included a significant portion of small businesses (with 50 or fewer employees);

[1] http://www.governor.wa.gov/news/Executive_Order_10-06.pdf

the overlap complicated the interpretation of a comparison only of the largest ten percent to all small businesses, as required under the Regulatory Fairness Act (RCW 19.85.070). Ecology made decisions in the course of rulemaking to reduce disproportionate impacts on small businesses, including:

- Requiring recordkeeping instead of reporting.
- Multiple instead of individual class designations per operator.
- Combined training for multiple operator types.
- A broad range of acceptable trainings.
- Reciprocity with other states' and federal government training.
- An internet tool facilitating creation of operations and maintenance plans.
- Allowing Ecology discretion in identifying noncompliance and how to correct it.

While these rule components help to reduce costs for all businesses that take advantage of them within their other business decisions, they are likely to reduce small business costs by a larger percentage than for large businesses.

Based on the Washington State Office of Financial Management's Input-Output model of the state economy, Ecology calculated likely jobs outcomes under various scenarios, for overall program costs, and just those costs in which Ecology used its discretion. All costs are lost from the state economy in the Worst-Case scenario, while money paid to service providers stays in the state under the Best-Case scenario, and contributes to the economy here. Table 1 summarizes these ranges of impacts.

Table 1: 20-year Jobs Impacts under the Proposed Rule Amendments

	Industries Impacted	**Worst-Case Scenario**	**Best-Case Scenario**
Program Costs	All UST	lose 3 to 86	lose 57 up to gain 26
	Gasoline Sector Only	lose 32 to 55	lose 3 to 25
Discretion-Specific	All UST	lose 3 to 74	lose 45 up to gain 27
	Gasoline Sector Only	lose 28 to 47	lose 18 up to gain 2

These job losses and gains occur across all industries in the state – not just those that have USTs. Across all of the possible industries directly impacted, on average 34.4 percent of jobs impacts are directly within the impacted industry. For service providers, 42.6 percent of jobs impacts stay within the industry. This means for the overall range of jobs impacts (losing 86 to gaining 27, depending on assumptions) could have direct impacts of losing 29 direct positions in an industry complying with the proposed rule, to gaining 12 service provider jobs.

For context, there are 215 thousand – 541 thousand positions across all the industries that may need to comply with the proposed rule. The highest estimated direct job losses would reduce direct employment across these industries by up to 1/100th of one percent.

Section 1: Introduction and Background

Based on research and analysis required by the Regulatory Fairness Act – RCW 19.85.070 – Ecology has determined the proposed rule amendments to Chapter 173-360 WAC are likely to have a disproportionate impact on small business. Therefore, Ecology included cost-minimizing features in the rule where it is legal and feasible to do so.

This document presents the:

- Background for the analysis of impacts on small business relative to other businesses.
- Results of the analysis.
- Cost-mitigating action taken by Ecology.

This document is intended to be read with the associated Cost-Benefit Analysis (Ecology publication #12-09-043), which contains more in-depth discussion of the analyses, as well as references and appendices.

A small business is defined as having 50 or fewer employees. Estimated impacts are determined as compared to the existing regulatory environment—the way underground storage tanks would be regulated in the absence of the proposed rule amendments.

The existing regulatory environment is called the "baseline" in this document. It includes only existing laws and rules at federal, state, and local levels.

Description of the proposed rule amendments

The proposed rule amendments:

- Authorize Ecology to prohibit the delivery of regulated substances to UST systems not in compliance with regulatory requirements.
- Establish an operator training program for individuals who operate and maintain UST systems.
- Require secondary containment of tanks and pipes, and containment under dispenser systems.

Reasons for the proposed rule amendments

The proposed rule amendments are necessary to:

- Comply with the legislative directive in Substitute Senate Bill 5475 (2007) to adopt rules that are consistent with and no less stringent than the requirements in the Underground Storage Tank Compliance Act of 2005.
- Maintain federal funding for our state UST program. Such funding is contingent on state compliance with the requirements in the Underground Storage Tank Compliance Act of 2005.

- Reduce the number, duration, and severity of releases of petroleum and other hazardous substances from regulated UST systems in this state, which pose a serious threat to human health and the environment, including drinking water.

These reductions in releases would save UST owners money spent on cleanup, insurance, and prospective liability, as well as reduce property value impacts of soil and groundwater contamination. These reductions in releases would also reduce human and environmental exposure to petroleum and other hazardous substances stored in UST systems, reducing health and environmental costs.

Regulatory baseline

In most cases, the regulatory baseline is the existing rule. If there is no existing rule, the federal or local rule is the baseline. Sometimes, there is no baseline because there is no regulation at any level of government, and yet other times, the baseline is for changes to other regulations (e.g., federal regulation is expected to be enacted before or just after the proposed rule; or a regulatory program would otherwise change or expire in the absence of the proposed rule).

The baseline is complex for the proposed rule amendments to the UST rule because there are multiple factors involved. These factors are:

- The existing UST rule (Chapter 173-360 WAC).
- The state law authorizing the UST rule (Chapter 90.76 RCW), as amended by Substitute Senate Bill 5475 in 2007. The state law requires the UST rule to be at least as stringent as federal law and restricts Ecology's discretion otherwise allowed under federal law.
- The federal law establishing minimum requirements for state UST programs (the Underground Storage Tank Compliance Act of 2005, 42 U.S.C. Sec. 15801 et seq., Energy Policy Act of 2005, P.L. 109-58, Title XV, subtitle B). The federal law requires compliance with federal grant guidelines established by the U.S. Environmental Protection Agency (EPA).

Ecology determined the baseline for this analysis is the most stringent of following requirements:

- The federal grant guidelines established by EPA under federal law.
- The state law's limitations on Ecology's discretion otherwise allowed under the federal grant guidelines.

Section 2: Compliance Costs

Ecology estimated the expected costs associate with the proposed amendments to the UST rule, as compared to the baseline as described in Section 1 of this document. The costs analyzed in this document are associated with specific individual proposed amendments listed in section 2.4 of the Cost-Benefit Analysis, in three general categories:

- Operator training.
- Secondary containment for tanks and pipes.
- Under-dispenser containment.

The proposed rule amendments were generally determined by law, but the specifics of how to administer them were determined by Ecology. For example, the law requires Ecology to have an operator training program. Ecology could not quantify the benefits of just the Ecology discretion requirement to train all Class C operators at a facility, and so identified the benefits of the operator training program overall. For comparability, Ecology estimated the costs of the operator training program overall (to compare costs and benefits of the proposed rule amendments), but also estimated the costs of just the Ecology requirement to train all Class C operators at a facility.

Where possible, Ecology estimated the subset of total program costs attributable to requirements in which it had discretion under the law (in the above example, requiring all Class C operators at a facility to be trained). However, in some cases, that was not possible. In addition, Ecology was unable to estimate the subset of total program benefits attributable to those requirements.

So, to retain the ability to compare costs and benefits of the proposed rule amendments, Ecology estimated the total costs and benefits of the program. Where it could, Ecology also estimated the subset of those costs (although not benefits) attributable to Ecology's exercise of discretion under the law to illustrate to the public the impacts of Ecology's decisions.

Ecology estimated present value compliance costs over 20 years.

Ecology estimated the total program costs and the subset of discretion-specific costs as follows. For a full discussion of cost calculation methodologies and sources, see the Cost-Benefit Analysis (Ecology publication #12-09-043).

Table 2: Estimated Compliance Costs Summary (millions of $)

	Program Cost	**Discretion-Specific Cost (subset of program cost)**
Operator Training	$8.50	$0.21
Delayed Training Deadline	-$0.005	-$0.005
Longer Allowed Training Time	-$0.001	-$0.001
Secondary Containment -- Tanks and Pipes	$42.40	$42.40*
Under-Dispenser Containment	$6.83	$6.83*
Training Cost Mitigation • Reciprocity for out-of-state training • Acceptance of prior in-state training	(qualitative cost reduction)	

Cost-mitigating multiple operator class designations • Multiple class designation • Changes in scope of training requirements	(qualitative cost reduction)	
Required emergency response and signage • At least one designated operator must be present at manned facilities • Emergency signage is required	(qualitative)	
TOTAL QUANTIFIABLE COSTS	**$57.72**	**$49.43**

*The Discretion-Specific Cost is Ecology's best attempt to quantify the costs associated only with Ecology's discretion (that is, those requirements not mandated by state or federal law). Where quantifying those costs was not possible, then the total program cost was used. It is a likely an overestimate of actual costs associated only with Ecology's discretion in this rulemaking.

Section 3: Quantification of Cost Ratios

Ecology calculated the estimated per-facility costs to comply with the proposed rule amendments. Based on available data, estimation and forecasting was possible on a facility-level or tank-level calculation. This means cost estimates and ranges are for the average or typical facility, tanks, and piping. This causes inherent estimation of disproportionate costs across differently-sized businesses. In this section, Ecology summarizes compliance cost calculations (due to space constraints in this document, the full cost and benefit analyses are presented in the associated Cost-Benefit Analysis, Ecology publication #12-09-043).

Operator training costs

In its Cost-Benefit Analysis of the proposed rule amendments, Ecology calculated the per-facility costs based on subsections of its overall cost calculations. With the possibility of businesses entering the market during the 20-year time horizon, Ecology assessed a likely per-facility costs range based on the full range of business operations duration (1 to 20 years).

Program costs

For operator training, Ecology estimated the per-facility cost from its overall program cost calculations as up to $2,360 (in current dollar value) over 20 years. Facilities entering the market over the course of the 20-year time horizon would likely experience lower operator training costs, as they would still pay initial training costs, but pay fewer years of ongoing costs related to employee and operator turnover.

Discretion-specific costs

For operator training, Ecology estimated the per-facility cost from its discretion-specific cost calculations as $58 (in current dollar value) over 20 years. As with overall program costs, facilities entering the market over the course of this time period would likely experience lower training costs, since they would pay them for fewer years before the end of the relevant time period.

Secondary containment

In its Cost-Benefit Analysis of the proposed rule amendments, Ecology calculated the present value costs of the proposed secondary containment requirements.

Program costs

For the overall program requirements, Ecology estimated a per-tank (and associated piping) cost of secondary containment (replacement of a single-walled system with a double-walled system) for the universe of single-walled tanks and piping existing, as $8,989. This compliance cost number is based on smooth annual phasing-in of tank replacements (236 tanks and piping each year, rather than all tanks and piping being replaced immediately, as this is not required by the proposed rule language – only replaced tanks and piping require secondary containment), and spreading tank and piping replacement costs over the following 20 years (e.g., through loan repayment).

Through its UST database, Ecology found that there are 2.65 tanks at the average facility. This means the average cost per facility over the 20-year time horizon is $23,821, if Ecology assumes that single-walled tanks and piping are clustered at the same facilities. If facilities have a mix of single- and double-walled tanks and piping, a facility experiencing secondary containment compliance costs would experience as little as the $8,989 for just one tank and piping replacement. If a theoretical large facility had a cluster of more tanks and piping, they would pay higher compliance costs. Ecology chose the average to reflect these possibilities.

Discretion-specific costs

Ecology could not confidently identify the number of tanks and piping that would be affected by only the areas of the proposed rule in which Ecology had discretion. In particular, Ecology could not identify those tanks and piping that would have otherwise chosen a type of secondary containment other than double-walled tanks and piping. Moreover, Ecology could neither confidently identify a cost differential for other types of secondary containment, as all known hazardous substance UST systems (which are currently required to be secondarily contained) have voluntarily chosen double-walled tanks and piping. Ecology has, therefore, included this assessment qualitatively, and used the quantitative measure for overall program costs in calculations. Actual discretion-specific based costs are likely significantly lower.

Under-dispenser containment

Program costs

In its Cost-Benefit Analysis of the proposed rule amendments, Ecology calculated that compliance with under-dispenser containment requirements would result in under-dispenser containment costs over 20 years of $608 at the average facility.

Discretion-specific costs

Many of the proposed changes to the UST program are mandated by state and federal law, and therefore are not within Ecology's discretion. In this case, state and federal law require under-dispenser containment to be installed whenever an entire dispenser system is installed or replaced. Under its statutory rule-making authority, Ecology is also requiring under-dispenser containment when only a dispenser is replaced (as opposed to whole dispenser system) and when only underground piping is replaced (not the dispenser system connected to the piping.

However, of the total number of dispenser systems affected by the proposed rule amendments, Ecology could not distinguish how many would be affected by each of the different applicability provisions. Therefore, Ecology could not quantify the portion of the program costs attributable only to Ecology's discretion.

Thus, for the purposes of this analysis, Ecology used the requirement mandated by law identical program and discretion-specific costs for under-dispenser containment, understanding that actual discretion-based costs are likely significantly lower.

Total compliance costs

Ecology summed the above types of compliance costs associated with the proposed rule amendments, for the overall program as well as only those choices in which Ecology had discretion (see individual cost categories above for discussion).

Program costs

Ecology estimated total compliance cost estimates for the overall program requirements for operator training, secondary containment, and under-dispenser containment, of between $2,360 (for businesses complying only with operator training requirements) to $26,189 (for businesses complying with operator training requirements, replacing tanks and piping with secondary containment, and installing under-dispenser containment).

Discretion-specific costs

Ecology estimated total compliance cost estimates for the parts of the rule in which Ecology used its discretion (where possible to estimate separately; otherwise program costs were used), of between $58 (for businesses complying only with operator training requirements) to $24,487 (for businesses complying with all three categories of requirement).

Cost per employee

While USTs are primarily expected to be located at gasoline and service stations, Ecology identified 87 industries that *might* have underground storage tanks. These are listed in Section 6, below. Ecology then identified the distribution of businesses across various employment-size categories.[2] Businesses were identified across the full range of categories, from 1-4 employees, through over 10,000 employees. Most businesses were in gasoline

[2] Employment size categories available from WA Employment Security Department: 1-4, 5-9, 10-19, 20-49, 50-99, 100-249, 250-499, 500-999, 1,000-4,999, 5,000-9,999, and 10,000+ employees. Data taken from Workforce Explorer, www.workforceexplorer.com.

stations, retail automotive-related trades, and transportation and shipping fleets. Other businesses included those with large emergency power generators, such as hospitals.

In accordance with SBEIS requirements in the Regulatory Fairness Act, Ecology identified the largest ten percent of businesses that might have to comply with the proposed rule amendments. The largest ten percent of businesses encompasses 1,380 identified businesses, employing between 20 and over 10,000 people each. Most of the 1,380 businesses are at the low end of this employment scale, with only 36 businesses employing over 1,000 people each. Yet nearly 1,100 businesses employ fewer than 50 people each.

In this analysis, Ecology is required to compare the costs per employee for small businesses (those employing fewer than 50 people) with the largest ten percent of all businesses complying. In the case of those businesses that might have to comply with the proposed rule amendments, those categories overlap. Therefore, Ecology compared the per-employee costs for each business-size category, as well as per-employee costs for small versus large businesses (under 50 versus over 50 employees) as overall categories.

Program costs

In comparing the per-employee costs of compliance with the overall program requirements (those required to be included broadly by federal or state law; which didn't necessarily allow Ecology discretion in overall rule requirements) of the proposed rule amendments, Ecology found that, as expected, with constant cost range per-facility, the largest businesses experience the lowest per-employee costs (24 cents), and the smallest businesses experience the highest per-employee costs (nearly $26 thousand).

Grouping businesses by under versus over 50 employees allowed Ecology to calculate that small businesses, on average, could pay $256 – $8,839 per employee, in compliance costs, while large businesses could pay an average of $6 – $140 per employee, based on overall program requirements.

In these views, the proposed rule imposes disproportionate costs on small businesses. Ecology must then have included, in the proposed rule, elements mitigating costs to small businesses. These are discussed in Section 4 of this document, below.

Discretion-specific costs

In comparing the per-employee costs of compliance with those elements of the proposed rule amendments in which Ecology used its discretion, Ecology found that, as expected, with constant cost range per-facility, the largest businesses experience the lowest per-employee costs (1 cent), and the smallest businesses experience the highest per-employee costs (nearly $25 thousand).

Grouping businesses by under versus over 50 employees allowed Ecology to calculate that small businesses, on average, could pay $6 – $8,264 per employee, in compliance costs, while large businesses could pay an average of $0.15 – $340 per employee. This is based on costs specific to Ecology's discretion in the proposed rulemaking. As discussed above, actual discretion-specific based costs are likely significantly lower.

In either of these views, the proposed rule imposes disproportionate costs on small businesses. Ecology must then have included, in the proposed rule, elements mitigating costs to small businesses. These are discussed in Section 4 of this document, below.

Caveats on business size and costs

There are several confounding factors in UST regulation-compliant businesses sizes that were necessarily lost to averaging used to deal with the scope and quality of data. For example, if there is a correlation between business size and the number of USTs at its facility, then the disproportionate cost impact between small and large businesses is smaller. Further, for secondary containment of UST systems, if larger facilities are likely to have clusters of older, single-walled tanks, then the disproportionate cost impact also falls.

Smaller businesses also likely have fewer employees to train as operators of any class. They are also likely to take advantage of the ability to have the same person as a Class A and Class B operator.

Finally, Employment Security Department data treats a business as a facility at one location, and does not account for chains of small facilities (as can be the case with retail and gasoline service stations), or larger interstate or international ownership of businesses by conglomerates. The more small business locations are owned by a single owner, the greater that owner's capacity to cope with compliance costs, and it is possible that these locations are part of a large (over 50 employee) business. The more businesses are owned by larger corporations, the greater their capacity to cope with compliance costs.

Section 4: Action Taken to Reduce Small Business Impacts

Ecology had limited ability in this rulemaking to reduce the impacts specifically to small business, but in choosing the least burdensome means of facilitating compliance and protecting human health and the environment, Ecology provided options that can help small businesses reduce their compliance costs by greater percentages. Ecology could not exempt small businesses from the remaining requirements to reduce costs, as this would be contrary to the authorizing statute's requirement to have operator training and secondary and under-dispenser containment.

Recordkeeping instead of reporting for operator training

Compared to other means of ensuring all operators meet the proposed requirements, Ecology chose the least-cost option of recordkeeping. For small businesses, this means avoiding the costs of reporting compliance for their employees. For each employee part of a small business, this is a larger percentage cost reduction than at a large business.

Multiple operator class designations

Ecology used the maximum discretion possible within the EPA's limits to allow an individual to carry multiple class designations. This means that one person can be, for example, a Class A and a Class B operator. At a small business, this can have a larger percentage reduction in costs by allowing minimal necessary staff to operate a facility or train Class C operators, and leaves a greater degree of choice in the hands of the business.

Combined class A and class B operator training

The proposed rule amendments allow training approaches that combine training for more than one class of operator. This, again, can help all businesses, but small businesses may benefit disproportionately in the following ways. First, small businesses can take advantage of the multiple-designation option to send fewer people to training, and thereby pay less in training costs and lost work hours. Second, small businesses can coordinate business operations with training in the most efficient way, depending on facility-specific business practices. For example, a small business may determine it is beneficial to train operators for multiple classes at separate times, to maintain operations, or shut down operations for the minimum time possible to train all operators at once. These cost reductions are likely to be a greater percentage of a small business's compliance costs, than a large business might experience.

Types of operator training

Ecology used the maximum discretion possible within the EPA's limits in determining acceptable operator training for Class A and Class B operators. For Class C operators, Ecology used the highest discretion possible without allowing examination-only training, as Ecology does not believe that would sufficiently help to prevent and limit releases. Allowing the broadest range of reasonable training will likely help small businesses comply with the proposed rule, as many of them are gasoline and service stations in retail and wholesale sectors that would otherwise have the most difficulty maintaining staffing levels and business practices if, for example, everyone had to attend an extensive course on all the requirements. Larger businesses are more able to deal with disruptions in staff and hours.

Reciprocity for out-of-state training

Ecology allows reciprocity in training, with other states and with the federal government. This allows businesses to avoid multiple trainings or types of training for businesses owned across multiple states, or operators at multiple interstate locations. This also facilitates entry into, and mobility within, the market, which is otherwise costly for small businesses to move or expand to multiple locations, or hire people from other states who carry other training. While reciprocity does prospectively benefit all businesses complying with the proposed rule amendments, small businesses are likely to benefit more from reduced costs relative to their income and size.

Operations and maintenance plan tool

Ecology is currently developing a free online tool to facilitate businesses developing operations and maintenance plans in cases where Ecology does require one in response to a rule violation. This simplifies the process and reduces costs associated with creating the operations and maintenance plan. This cost reduction may be more meaningful for a small business (particularly in terms of operator time) than a large one.

Ecology discretion and flexibility

The proposed rule amendments allow Ecology discretion in many compliance and enforcement areas. This allows Ecology to consider the size of a business, available resources and staff, and other facility-specific factors when determining retraining requirements and the use of operations and maintenance plans. In this way, Ecology will work with businesses to meet their needs in complying with the proposed rule amendments.

Section 5: Small Business and Government Involvement

Ecology has involved small businesses and local governments (as well as large businesses and other interested parties) during the rule-making process (as well as during the earlier legislative process).

- Web page. Ecology developed a dedicated web page that described the purpose and status of the rule-making. Preliminary drafts of the proposed rule were also posted on the web page when they were submitted for public review.

- Preliminary Drafts. As preliminary drafts of each part of the rule were developed, Ecology provided the public an opportunity to review and comment on those drafts. We specifically notified small business associations and other interested persons of the opportunity. The drafts were included on the web page. Due to time constraints, this effort was suspended after Ecology decided to reduce the scope of the rule-making. Of the remaining parts, only the part governing operator training had been submitted for public review and comment. No comments were received on that part.

- Meetings and consultations. We consulted with stakeholders, including small business associations, individually or in groups at different points to discuss the issues addressed in the rule-making and our general policy direction. These stakeholders included:
    - Western States Petroleum Association (WSPA).
    - Washington Oil Marketers (WOMA).
    - Automotive United Trades Organization (AUTO).
    - Association of Washington Business (AWB).
    - Operator training providers.
    - Service providers.

- Development of training programs. During the rule-making, Ecology also developed a voluntary operator training program, including guidelines for providers. Ecology worked with providers to develop the guidelines. Ecology developed the voluntary program to allow owners, including small businesses and local governments, more time to comply with the training requirements. Ecology created a web site and focus sheet. A post card was mailed to each registered UST system owner in the state.

Ecology has consulted with several associations representing small businesses (such as WOMA and AUTO) and local governments (such as the Association of Washington Cities and Washington State Association of Counties) about how best to notify affected persons (such as through newsletters) of the proposed rule. To ensure that all UST system owners are notified, Ecology is mailing notices to each UST system owner. Some business and local government associations have also agreed to include notices in their members. Ecology will also translate the notice into Korean and provide it to outlets and business associations.

Section 6: NAICS Codes of Impacted Industries

The table below lists NAICS codes for industries Ecology expects could be impacted by the proposed rule amendments.[3]

Table 3: NAICS Codes that Include Businesses Possibly Needing to Comply with the Proposed Rule Amendments

211111	212325	221310	336120	441222	482111	485119	486110	488210	492110	622210
212111	212399	221320	423110	441229	483111	485210	486210	488310	532111	622310
212221	213111	324110	424710	447190	483113	485310	486990	488320	532120	623110
212311	213112	324121	424720	481111	484110	485320	487110	488330	562112	711212
212312	213114	324122	441110	481112	484121	485410	487210	488390	562119	713930
212319	221119	324191	441120	481211	484220	485510	487990	488490	562211	811191
212321	221122	336111	441210	481212	484230	485991	488119	488999	562212	928110
212322	221210	336112	441221	481219	485112	485999	488190	491110	622110	

Section 7: Impact on Jobs

Ecology used the Washington State Office of Financial Management's 2002 Washington Input-Output Model.[4] The model accounts for inter-industry impacts and spending multipliers of earned income and changes in output.

The proposed rule will result in transfers of money between industries; businesses complying with the proposed rule amendments will pay businesses providing operator training, installation, and other service provision. These providers could be in-state or out-of-state. Ecology analyzed a

[3] North American Industry Classification System (NAICS) codes have largely taken the place of Standard Industry Classification (SIC) codes in the categorization of industries.
[4] See the Washington State Office of Financial Management's site for more information on the Input-Output model. http://www.ofm.wa.gov/economy/io/2002/default.asp

range of scenarios including a “worst-case” scenario in which all compliance costs leave the state, and a “best-case” scenario, in which all compliance costs become revenues for service provider industries. (Ecology excluded operator training providers, as many of them are known as out-of-state.)

Ecology estimated long-term jobs impacts of the proposed rule amendments, considering the overall program requirements and just those requirements in which Ecology used its discretion. These prospective losses are due to overall program costs, and are an overestimate of the costs associated specifically with the areas of the proposed rule amendments in which Ecology could use its discretion. Ecology estimated both the worst-case (no money spent on training and service providers returns to the Washington State’s economy) and best-case (money spent on service providers benefits their industry in the state) scenarios for jobs over the next 20 years. The numbers gained or lost represent employment positions for the full 20 years. Table 4 summarizes these jobs impact ranges.

Table 4: Range of Job Impacts from the Proposed Rule Amendments

	Industries Impacted	**Worst-Case Scenario**	**Best-Case Scenario**
Program Costs	All UST	lose 3 to 86	lose 57 up to gain 26
	Gasoline Sector Only	lose 32 to 55	lose 3 to 25
Discretion-Specific	All UST	lose 3 to 74	lose 45 up to gain 27
	Gasoline Sector Only	lose 28 to 47	lose 18 up to gain 2

These job losses and gains occur across all industries in the state – not just those that have USTs. Across all of the possible industries directly impacted, on average 34.4 percent of jobs impacts are directly within the impacted industry. For service providers, 42.6 percent of jobs impacts stay within the industry. This means for the overall range of jobs impacts (losing 57 to gaining 27, depending on assumptions) could have direct impacts of losing 19 direct positions in an industry complying with the proposed rule, to gaining 12 service provider jobs.