



Small Business Economic Impact Statement

Chapter 173-303 WAC

Dangerous Waste Regulations

August 2014

Publication no. 14-04-040

Publication and Contact Information

This report is available on the Department of Ecology's website at <https://fortress.wa.gov/ecy/publications/SummaryPages/1404040.html>.

For more information contact:

Hazardous Waste and Toxics Reduction Program
P.O. Box 47600
Olympia, WA 98504-7600

Phone: 360-407-6700

Washington State Department of Ecology – www.ecy.wa.gov

- Headquarters, Olympia 360-407-6000
- Northwest Regional Office, Bellevue 425-649-7000
- Southwest Regional Office, Olympia 360-407-6300
- Central Regional Office, Yakima 509-575-2490
- Eastern Regional Office, Spokane 509-329-3400

To ask about the availability of this document in a format for the visually impaired, call the Hazardous Waste and Toxics Reduction Program at 360-407-6700. Persons with hearing loss can call 711 for Washington Relay Service. Persons with a speech disability can call 877-833-6341.

Small Business Economic Impact Statement

Chapter 173-303 WAC Dangerous Waste Regulations

By

Jeremy Carter

for

Hazardous Waste and Toxics Reduction Program
Washington State Department of Ecology
Olympia, Washington

Table of Contents

Note: Due to size limitations relating to the filing of documents with the Code Reviser, the SBEIS does not contain full explanation of Ecology’s analysis. Additionally, it does not contain raw data or all summaries of data used in the analysis, or all of Ecology’s analysis of this data. However, this information is being placed in the rule-making file, and is available upon request for the rule file. A full analysis of compliance costs is available in the associated Cost-Benefit Analysis for this rule: <https://fortress.wa.gov/ecy/publications/SummaryPages/1404039.html>

Executive Summary.....	2
Section 1: Background	3
Description of the proposed rule amendments	3
Reasons for the proposed amendments	4
Section 2: Analysis of Compliance Costs for Washington Businesses	4
Establish time limit for special waste at transfer stations	4
Independent Qualified Professional Registered Engineer (IQPRE).....	5
Financial assurance	5
Combined costs.....	7
Section 3: Quantification of Cost Ratios	7
Section 4: Action Taken to Reduce Small Business Impacts	8
Section 5: The Involvement of Small Businesses in the Development of the Proposed Amendments.....	8
Section 6: The SIC Codes of Impacted Industries.....	9
Section 7: Impacts on Jobs.....	9
Section 8: References.....	11

Table of Tables

Table 1: Probable Costs.....	7
Table 2: NAICS Codes that Include Businesses Possibly Regulated by the Proposed Rule Amendments	9
Table 3: Disaggregation of Costs and Cost Savings.....	10

Executive Summary

Based on research and analysis required by the Regulatory Fairness Act – RCW 19.85.070 – Ecology has determined that the proposed amendments to the Dangerous Waste Regulations (Chapter 173-303 WAC) could have a disproportionate impact on small business. A small business is defined as having 50 or fewer employees. Ecology included language in the proposed rule amendment to minimize disproportionate impacts when doing so would not contradict the intent of the underlying rules and laws.

The Small Business Economic Impact Statement is intended to be read with the associated Cost-Benefit Analysis (Ecology publication #14-04-039), which contains more in-depth discussion of the analysis.

Due to the breadth and depth of the proposed rule amendments, we determined employment numbers for entities according to each proposed change. We used the statewide dangerous waste annual reporting program, TurboWaste, to determine which firms reported generating or handling the specific wastes mentioned in the various amendments. In turn, we used data from the Washington State Employment Security Department, to determine data figures for the impacted firms.

This SBEIS suggests that two of the proposed rule amendments have the potential to impact small businesses. The proposed rule amendment that establishes a time limit for transfer stations to store special waste has the potential to impact small businesses. However, the proposed rule amendment, if adopted, has enough flexibility so that all transfer stations would have the ability to apply for an exemption to the time limit. The proposed rule amendments concerning financial assurance could, potentially, pose a disproportionate impact on small businesses. However, Ecology considers these provisions essential to the goal and objectives of the underlying laws and rules.

Ecology involved small businesses in the development of the proposed rule by creating a web page describing the rule development process, creating a Power Point document that describes the proposed rule amendments, offering email notices about the rule development via a list serve, holding public workshops, and soliciting comments on the draft rules. Similarly, Ecology involved local governments, especially local health boards, by consulting with local authorities during development of the proposal.

Generally, we use the Washington State Office of Financial Management's 2007 Washington Input-Output Model (OFM-IO) to estimate the proposed rule's first round impact on jobs across the state. We estimated that the proposed rule amendments, if adopted, could result in an additional 312 jobs, statewide, over 20 years.

Section 1: Background

Based on research and analysis required by the Regulatory Fairness Act – RCW 19.85.070 – Ecology has determined that the proposed rule amendments to Dangerous Waste Regulations (Chapter 173-303 WAC) could have a disproportionate impact on small business.¹ As discussed below and the CBA, two proposed rule amendments could impact small businesses.

The Small Business Economic Impact Statement is intended to be read with the associated Cost-Benefit Analysis (Ecology publication #14-04-039), which contains more in-depth discussion of the analysis.

Description of the proposed rule amendments

The package of amendments includes proposals to adopt federal rules that provide alternative mechanisms for dangerous waste management under RCRA, and proposals initiated by Ecology to amend state-only rules. The new federal provisions include proposals related to:

- Academic labs
 - Allowing eligible college and universities with laboratories to choose alternative process for managing laboratory waste on-site.
- Saccharin
 - Removing saccharin and its salts from list of dangerous constituents, wastes, and substances.
- Carbamate LDR
 - Providing facilities that handle carbamate wastes an alternative standard to use when treating carbamate wastes to meet to land disposal restrictions (LDR) treatment standards.

In addition to the federal rules, Ecology proposed the following amendments that require analysis. Proposed amendments to the state-only requirements include:

- Special waste at transfer stations
 - Establishing a 30-day time limit for special waste accumulated at solid waste transfer stations.
- Revise Chemical Test Methods (CTM) publication
 - Clarifying appropriate test methods to designate halogenated organic compounds (HOCs).
- Independent qualified registered professional engineer (IQRPE)
 - Clarifying that facilities must use an “independent qualified registered professional engineer” instead of a “qualified professional engineer” (or similar language) for certifications.
- Enforceable documents
 - Adopt federal rules that allow use of enforceable documents in lieu of RCRA post closure permits.
- Financial assurance:

¹ A small business is defined as having 50 or fewer employees.

- 3rd party cost estimates
 - Ensuring that related corporate entities are not considered third parties for cost estimating purposes.
- Net Present Value
 - Clarifying cost estimates for closure and post-closure financial assurance must be in current dollars, and net present value adjustments are not allowed.
- Financial Test
 - Clarifying the financial test and the corporate guarantee are two separate but related options.
- Tangible net worth
 - Raising the minimum tangible net worth requirement from \$20 million to \$25 million to qualify for use of the financial test or corporate guarantee option.
- Agreed upon procedures
 - Clarifying financial test and corporate guarantee provisions to allow submission of an “agreed upon procedures” report to fulfill the special report requirement.
- Increase minimum financial assurance amounts
 - Updating the minimum liability coverage amounts.
- Financial Assurance Corrective Action
 - Adding subsection for corrective action financial assurance.
- Public Disclosure
 - Delete WAC 173-303-905. The section is in conflict with Public Records Act (PRA).

Reasons for the proposed amendments

The proposed amendments are necessary to maintain consistency with related regulations at the federal level. In addition, Ecology determined the proposed amendments to the state-only requirements increase efficiency at an agency level which means better protection for people and the environment.

Section 2: Analysis of Compliance Costs for Washington Businesses

Establish time limit for special waste at transfer stations

The costs associated with the establishment of a 30-day limit for special wastes at transfer stations would accrue to transfer stations. The proposed change could increase transportation costs for transfer stations that currently store special waste longer than 30 days. The exact cost

would depend on the size of the transfer station, distance from a final destination such as a solid waste facility, and cost of fuel.²

At this time, we do not have access to information that will enable us to estimate the potential cost of the 30 day limit on transfer stations. Approximately 147 transfer stations operate in Washington. At least nine of the 147 transfer stations employ fewer than 50 people.

In 2013, 11 generators reported 16,930,118 pounds of special waste. Because of special exemptions related to transfer stations and special waste, we do not know how much of the 16,930,118 pounds of special waste went through the transfer stations. Further, we do not know if any of the transfer stations employing fewer than 50 people receive, handle, or store special waste for any length of time. Accordingly, it is difficult to determine how many of the transfer stations the proposed change would impact (how many actually store special waste) or to what extent the change will impact operations (how much the transfer stations store or how long the special waste is kept).

Despite the lack of information related to this change, we feel confident that Ecology has incorporated enough flexibility into the proposed rule amendment to help transfer stations adapt to the proposed change. In particular, the proposed rule amendment enables transfer stations to apply for an exemption to the 30 day limit. As described in the Cost Benefit Analysis, transfer stations already apply to a local permitting authority to receive authorization to receive special waste. If adopted, the proposed rule amendment would enable transfer stations to seek an exemption to the time limit during the permitting or renewal process. Ecology does not anticipate that seeking an exemption would create additional costs to any transfer station.

Independent Qualified Professional Registered Engineer (IQPRE)

The requirement to hire an independent professional engineer for certification processes would impact treatment, storage and disposal facilities (TSDFs). There are 13 operating TSDFs in the state. We used publicly available data to determine that none of the TSDFs currently employ fewer than 50 people. Given the existing regulations regarding location of potential facilities, permitting requirements, and other rules, Ecology considers it highly unlikely that any new TSDFs might begin operation in Washington over the next 20 years.³

As none of the existing TSDFs employ fewer than 50 people, none is considered a small business. Accordingly, no analysis is required for this proposed amendment.

Financial assurance

The proposed rule amendments to increase minimum liability coverage amounts could increase the cost of compliance for TSDFs and dangerous waste recycling facilities. Generally, financial assurance minimum liability requirements apply to operating treatment, storage, and disposal

² The size of the transfer station will determine the amount of special waste that transfer stations can store for any length of time.

³ We affirmed this conclusion by reviewing the annual number of TSDFs as reported to the TurboWaste database as well as to the Department of Revenue in Washington.

facilities and dangerous waste recycling facilities. Of the facilities required to demonstrate financial assurance, as many as four facilities might qualify as a small business with fewer than 50 employees.

Currently, 22 facilities must demonstrate minimum liability coverage. Of those, four facilities use the financial test or corporate guarantee option and 18 facilities use liability insurance. The proposed rule amendments would not impact facilities that use the financial test or corporate guarantee option. Ecology anticipates that those facilities that use an insurance policy to demonstrate liability coverage could experience an increase in compliance costs due to the increase in minimum liability amounts.

Because the financial assurance requirements only apply to active treatment, storage, and disposal facilities and dangerous waste recycling facilities, Ecology does not anticipate that any new facilities would require financial assurance. That is, given the current regulatory environment, it is unlikely that any new TSDFs would locate in Washington. Additionally, the current recycling market appears to be stable and Ecology does not currently anticipate any new dangerous waste recyclers will enter the market. Ecology also feels confident that the firms that use a financial test or corporate guarantee would continue to do so over the time horizon in this analysis. It is possible that a currently active TSDF site or recycler could transition to closure or post-closure status in the next 20 years, which would reduce compliance costs. Since the transition to closure and post-closure program is generally a negotiated process, we do not feel confident forecasting when, if at all, a facility might transition to closure/post-closure status.

Presumably, increasing the face value of an insurance policy used to provide minimum liability coverage could increase the cost of using insurance. The cost of insurance depends on the specific wastes handled at a location, location of the facility, the proximity and condition of the surrounding buildings, the financial standing of the insured, and the insurance company. Unfortunately, Ecology does not have access to all of the policy documents needed to determine the term, details, and premiums that the facilities pay for insurance to meet financial assurance. Accordingly, we contacted several local brokers, financial assurance officers in other states, consulted marketing information from leading providers of environmental insurance, and consulted three studies concerning environmental insurance (Yount and Meyer, 2005a, 2005b, 2006).

Ecology considers it reasonable to assume that increasing the minimum financial assurance amounts for sudden accidents occurrence could increase premiums by \$5,000 annually and increasing the amount of financial assurance for combined sudden and non-sudden accidents could cost \$10,000. Ecology is seeking, and encourages, further comment and input to improve or verify these values during the public comment period.

Of the 18 facilities that use insurance to meet their obligation, four provide policies in excess of the current minimums. Of the remaining facilities, Ecology anticipates that as many as 14 might need to purchase additional sudden accidental coverage at an estimated cost of \$5,000. Ecology estimates that seven facilities that require non-sudden coverage would choose to self insure, and thus incur a zero incremental cost instead of \$10,000. Accordingly, we estimate that the

proposed rule amendment could increase compliance costs for the impacted facilities by \$70,000 annually.

In addition to information about insurance premiums, we also considered the price of alternative mechanisms that a facility in need of financial assurance might consider instead of insurance. Of the available options to provide financial assurance, insurance is likely the least expensive. From discussions with past and present facilities in the financial assurance program and regulators at EPA and in other states, Ecology also understands that the cost of surety bonds is frequently similar to those for insurance. For businesses that do not elect to use insurance, surety bonds would be a likely second choice.

The remaining options available under the regulations are obtaining a letter of credit from a bank or creating a trust fund with a bank or other acceptable trustee. Both of these options would likely be far more expensive than either an insurance policy or a surety bond. Therefore, we do not anticipate any business will elect to use either of these options.

In sum, Ecology estimates that, if adopted, the proposed rule amendment could increase costs to facilities using liability insurance to provide financial assurance by \$70,000 annually over the next 20 years. The net present value of \$70,000 annually at a discount rate of 1.32 percent for 20 years is \$1,223,403, which represents the total cost that could accrue to Washington facilities if the proposed rule amendment is adopted.

Combined costs

Table 1 below provides a review of the costs we anticipate could occur.

Table 1: Probable Costs

Proposed Rule Amendments	Annual Costs	NPV (1.32%, 20 years)
Transfer Stations	\$Unknown	\$Unknown
IQPRE	\$104,000	\$1,817,627
Financial Assurance	\$70,000	\$1,223,403
TOTAL	\$174,000	\$3,041,030

Section 3: Quantification of Cost Ratios

The proposed rule amendments do impact businesses across numerous industries. Our analysis suggests that one of the proposed rule amendments could impact small businesses. In particular, our analysis of the facilities that use liability insurance to satisfy minimum financial assurance amounts suggests that the proposed rule amendment could impact as many as five facilities. Our analysis suggests that the proposal to increase minimum liability amounts could impact 14 facilities. The net present value over 20 years of the annualized costs for the financial assurance amendments is \$1,223,402. Accordingly, the cost per facility totals \$87,386.

To calculate the cost ratios, we compare the net present value of the cost for a firm over 20 years to the number of employees at the ten percent of businesses that are the largest businesses

required to comply with the rule amendments. We estimate that the proposed rule amendment could increase compliance costs by \$5,000 annually for each facility. The net present value of \$5,000 over 20 years at a discount rate of 1.32% is \$87,386. The average number of employees at the largest companies is approximately 47,500. Accordingly, the cost per employee for the large businesses is \$1.84 per employee. We estimate that as many as four facilities employ as few as 20 employees. As a result, the cost per employee would total \$4,369.39.

The cost per employee calculations suggest that the proposed amendment related to increasing the minimum liability amount for financial assurance could have a disproportionate impact on small businesses.

Section 4: Action Taken to Reduce Small Business Impacts

As Ecology determined in Section 3, above, one of the proposed rule amendments could impose a disproportionate impact on small businesses. Accordingly, Ecology considered, as required by RCW 19.85.030 (2) (a-f), methods that might reduce the impact of proposed rule amendment on businesses. Ecology determined the following:

- Ecology incorporated an exemption process for transfer stations that need to store special waste more than 30 days. As described, the exemption process would not increase compliance costs, and provides the opportunity for transfer stations time to adjust the proposed rule amendment, if adopted.
- Ecology determined that it is not possible to reduce the cost of the financial assurance minimum liability coverage provision to small businesses without contradicting the goals and objectives of the underlying statute. The purpose of the minimum liability provisions is to ensure that parties that accept waste for treatment, storage, and disposal or recycling maintain adequate financial protection in case of accidents that expose the public to dangerous materials. Providing cost assistance or other measures to ameliorate the impact of this proposed rule amendment would effectively transfer the cost of liability from the facility to the state, which would violate the Washington Constitution and contradict the intent of the statute.

In sum, Ecology made every effort to consider and implement all available options that could reduce the impact of the proposed rule amendments on small businesses, and made adjustments where possible.

Section 5: The Involvement of Small Businesses in the Development of the Proposed Amendments

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

- Held a public meeting during the rule development process to get feedback on issues and comments on the draft rule language. This included small businesses and government entities.
- Developed a website to communicate with all interested persons, including small businesses, about rule making developments.
- Informed stakeholders via the dangerous waste listserv and the Ecology Shoptalk newsletter about the rule process.
- Sent rule information to all generators with EPA/State dangerous waste identification numbers, which includes small businesses, local governments, and representatives of these groups.

Section 6: The SIC Codes of Impacted Industries

The SIC (Standard Industry Classification) system has long been replaced by the North American Industry Classification System (NAICS). The proposed rule specifically applies to generators and facilities that handle hazardous and dangerous waste. The generators and TSD facilities span numerous sectors of the economy in Washington State. The majority of the TSD facilities self report their NAICS sector as 562211, Hazardous Waste Treatment and Disposal. The table below includes other NAICS sectors reported to Ecology via TurboWaste or mentioned by the EPA in rule notices.

Table 2: NAICS Codes that Include Businesses Possibly Regulated by the Proposed Rule Amendments

3119	3256	4931	6115
3121	3259	5417	6116
3219	3274	54194	6221
3251	3364	5622	6222
3253	3366	6112	6223
3254	4249	6113	

Section 7: Impacts on Jobs

The Regulatory Fairness Act requires “[a]n estimate of the number of jobs that will be created or lost as the result of compliance with the proposed rule” (RCW 19.85.040(2)(d)). Ecology interprets this requirement as including the jobs impacts of all compliance costs – not just those to which the SBEIS applies. In this section, therefore, we use the OFM Input-Output Model for Washington State, to estimate the jobs impacts of all of the compliance costs and cost-savings likely to result from the proposed rule amendments, not just those that impact small businesses. In particular, while the SBEIS does not include compliance costs for using independent professional engineers (because the requirement only applies to TSDs and no TSDs are small

businesses, making a comparison of relative compliance costs impossible), our jobs estimate does include these compliance costs to reflect the overall jobs-impact of the proposed rule amendments as a whole.

We used the Washington State Office of Financial Management’s 2007 Washington Input-Output Model (OFM-IO) to estimate the proposed rule’s first round impact on jobs across the state. This methodology estimates the impact as reductions or increases in spending in certain sectors of the state economy flow through to purchases, suppliers, and demand for other goods. Compliance costs incurred by an industry are entered in the OFM-IO model as a decrease in spending and investment.

To the extent possible, we used NAICS codes reported by facilities to Ecology via TurboWaste, to determine the sectors of the economy impacted by the proposed rule amendments. We then compared the NAICS codes from TurboWaste with the sectors defined in the OFM-IO model. We disaggregated the impacts of the rule amendments according to the sectors as defined in the OFM-IO model. For example, our review of the NAICS codes reported by generators to Ecology for wastes that contain halogenated organic chlorides (HOCs) revealed that facilities in the following sectors reporting waste streams that contain HOCs: wholesale (29), other transportation (35), educational services (45), hospitals (47), and waste management (52).⁴ Accordingly, we apportioned the total discounted cost savings for the chemical testing amendment across each of the sectors. Table 3 below lists the sectors and total estimated impact for each of the proposed rule amendments.

Table 3: Disaggregation of Costs and Cost Savings

	29-Wholesale	35-Other Transportation	45-Educational Services	47-Hospitals	52-Waste Management
Academic Lab			\$8,817,572		
HOC Testing	\$674,794	\$674,794	\$674,794	\$674,794	\$674,794
Enforceable Documents					\$5,787,864
IQPRE					(\$1,817,627)
Financial Assurance					(\$1,223,403)
	\$674,794	\$674,794	\$9,492,366	\$674,794	\$3,421,328

Using the net impact for each of the sectors above, we estimated that the proposed rule amendments, if adopted, could result in an additional 312 jobs, statewide over 20 years. As evident, the majority of the proposed rule amendments, if adopted, would impact treatment, storage, and disposal facilities (NAICS Code 562211: Hazardous Waste Treatment and Disposal).⁵ However, the potential losses from the increase in compliance costs for the waste management sectors are offset by the potential cost savings in the wholesale, transportation sector, education services, and hospital sectors.

⁴ The numbers in brackets refer to the sectors as defined in Table 2-1 of the Beyers and Lin (2012) document for the Washington State Office of Financial Management Input-Output analysis.

⁵ NAICS code 562211 falls under the broader Waste Management (52) sector in the Washington IO model.

Section 8: References

- American International Group (AIG), Inc. 2014. "Environmental Products Guide." AIG Property Casualty. Accessed August 8, 2014. http://www.aig.com/Industry-Specialization_3171_442588.html.
- Bureau of Economic Analysis, US. 2014. Implicit Price Deflator for Gross National Product or Gross Domestic Product. National Income and Product Accounts Tables. <http://www.bea.gov/iTable/iTable.cfm?reqid=9&step=3&isuri=1&904=2012&903=13&906=a&905=1980&910=x&911=0#reqid=9&step=3&isuri=1&904=2012&903=13&906=a&905=1980&910=x&911=0>.
- Bureau of Labor Statistics, US. 2014c. Employer Costs for Employee Compensation. Table Seven, "Private Industry, by census region and division, and area. Last modified June 11, 2014. <http://www.bls.gov/news.release/ecec.t07.htm>.
- Beyers, William and Ta-Win Lin. 2012. "The Washington Input-Output Study." Washington State Office of Financial Management. <http://www.ofm.wa.gov/economy/io/2007/default.asp>
- Department of Ecology, Washington State. 2014. TurboWaste.Net. <https://fortress.wa.gov/ecy/turbowaste/Login/Splash.aspx#>.
- Department of Revenue, Washington State. 2014. Detailed Tax Data by Industry and Tax Classification. Accessed July 2014. http://dor.wa.gov/Content/AboutUs/StatisticsAndReports/line_code_detail/default.aspx.
- Employee Security Department, Washington State. 2014. "Employment and Economic Information" July 2014. <https://fortress.wa.gov/esd/employmentdata/>.
- Marsh & McLennan Companies. 2013. "Benchmarking Trends: US Environmental Insurance Rates Remain Competitive." Accessed August 8, 2014. <http://usa.marsh.com/NewsInsights/MarshRiskManagementResearch/ID/32690/Benchmarking-Trends-US-Environmental-Insurance-Rates-Remain-Competitive.aspx>.
- Yount, Kristen and Peter Meyer. 2005a. "Environmental Insurance Products Available for Brownfields Redevelopment." Report for US EPA. Accessed August 8, 2014. http://www.epa.gov/brownfields/insurance/enviro_insurance_2006.pdf.
- _____. 2005b. Update: State Brownfield Insurance Programs, 2005. Report for the US EPA. Accessed August 8, 2014. <http://www.epa.gov/brownfields/insurance/>.
- _____. 2006. State Brownfield Insurance Programs. Report for the US EPA. Accessed August 8, 2014. <http://www.epa.gov/brownfields/insurance/>.

Zurich Insurance Company. 2014. "Z Choice Pollution Liability." Accessed August 8, 2014.
www.zurichna.com/environmental.