



PROPOSED RULE MAKING

CR-102 (December 2017) (Implements RCW 34.05.320)

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FILED

DATE: January 23, 2018

TIME: 11:10 AM

WSR 18-03-165

Agency: Department of Ecology AO# 13-08

Original Notice

Supplemental Notice to WSR _____

Continuance of WSR _____

Preproposal Statement of Inquiry was filed as WSR 13-22-07 ; or

Expedited Rule Making--Proposed notice was filed as WSR _____; or

Proposal is exempt under RCW 34.05.310(4) or 34.05.330(1); or

Proposal is exempt under RCW _____.

Title of rule and other identifying information: (describe subject) Chapter 173-350 WAC – Solid Waste Handling Standards. The rules in this chapter pertain to non-hazardous solid waste, and facilities that manage non-hazardous solid waste, except municipal solid waste landfills.

Hearing location(s):

Date:	Time:	Location: (be specific)	Comment:
March 6, 2018	9:00 AM	In person and by Webinar: Ecology Headquarters 300 Desmond Drive Lacey, WA 98503 Ecology Northwest Regional Office 3190 160th Ave SE Bellevue, WA 98008	The hearing begins at 9:00 AM with a brief presentation and question and answer session, followed by the formal hearing and testimony. You may attend at one of the listed locations, or participate remotely by webinar. A webinar is an online meeting forum that you can attend from any computer using internet access. To join the webinar, click on the following link for more information and instructions: https://watech.webex.com/watech/j.php?MTID=m94a01659810819e31fd7c2d1db093317 Meeting Number: 804 165 501 Meeting Password: Ecology1 For audio only, call US toll number 1-650-479-3208 or toll free 1-877-668-4493 and enter access code 804 165 501. Or to receive a free call back, provide your phone number when you join the event.
March 9, 2018	9:00 AM	In Person and by Webinar Ecology Central Regional Office 1250 W. Alder Street Union Gap, WA 98903 Ecology Eastern Regional Office 4601 N. Monroe St.	The hearing begins at 9:00 AM with a brief presentation and question and answer session, followed by the formal hearing and testimony. You may attend at one of the listed locations, or participate remotely by webinar.

	Spokane, WA 99205	<p>A webinar is an online meeting forum that you can attend from any computer using internet access. To join the webinar, click on the following link for more information and instructions: https://watech.webex.com/watech/j.php?MTID=mf0c938692688a15bda43b5f59841845a</p> <p>Meeting Number: 802 522 807 Meeting Password: Ecology1</p> <p>For audio only, call US toll number 1-650-479-3208 or toll free 1-877-668-4493 and enter access code 802 522 807. Or to receive a free call back, provide your phone number when you join the event.</p>
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Date of intended adoption: April 25, 2018 (Note: This is **NOT** the **effective** date)

Submit written comments to:
Name: Kyle Dorsey
Address: PO Box 47600, Olympia, WA 98504-7600 (U.S. mail)
300 Desmond DR SE, Lacey, WA 98503 (parcel delivery services)
Email: Please submit comments online, by mail, or at one of the public hearings
Fax: N/A
Other: Online form: <http://wt.ecology.commentinput.com/?id=N3EMG>
By (date) March 20, 2018

Assistance for persons with disabilities:
Contact Hanna Waterstrat
Phone: 360-407-7668
Fax: 360) 407-6137
TTY: 877-833-6341
Email: hwat461@ecy.wa.gov
Other: Washington Relay Service 711
By (date) March 1, 2018

Purpose of the proposal and its anticipated effects, including any changes in existing rules: Ecology is proposing a comprehensive amendment of the Solid Waste Handling Standards in Chapter 173-350 WAC. Changes proposed to sections 220, 225 and 250 are intended only for the purposes of clarification and consistency with other sections of the rule. Experience implementing the rule and input from stakeholders identified many areas in need of improvement. Issues previously identified as priorities (preproposal statement of inquiry – CR-101) included updating definitions, clarifying criteria for inert waste classification and when earthen material/soil is a solid waste, as well as streamlining recordkeeping and reporting requirements. In the CR-101 for this rulemaking, Ecology announced it would also address other issues that might result in substantive changes, as well as clarifications and corrections to language in the chapter not expected to change the overall effect of the rule. This rulemaking will:

- Standardize language and construction to improve usability and consistency across the rule.
- Improve user ability to identify solid wastes apart from commodities, and support material recovery and recycling activities while protecting public health and the environment.
- Help users more easily distinguish inert wastes from other materials requiring a higher standard of management.
- Clarify applicability of the rule, operational requirements, and timeframes for managing solid wastes in piles.
- Distinguish between clean and contaminated soils and dredged material, and clarify management requirements.
- Make other changes to the rule. See the proposed language for more details on all changes.

Reasons supporting proposal: See: Purpose of proposal and its anticipated effects, above.

Statutory authority for adoption: RCW 70.95, 70.95.060, 70.95.215, 70.95.218, 70.95.260(6), 70.95.300, 70.95.305, 70.95.310, 70.95.440

Statute being implemented: RCW 70.95 Solid Waste Management - Reduction and Recycling

Is rule necessary because of a:

- Federal Law? Yes No
Federal Court Decision? Yes No
State Court Decision? Yes No

If yes, CITATION:

Agency comments or recommendations, if any, as to statutory language, implementation, enforcement, and fiscal matters: N/A

Name of proponent: (person or organization) Washington State Department of Ecology

- Private
 Public
 Governmental

Name of agency personnel responsible for:

	Name	Office Location	Phone
Drafting:	Kyle Dorsey	Lacey	360-407-6559
Implementation:	Laurie Davies	Lacey	360-407-6103
Enforcement:	Laurie Davies	Lacey	360-407-6103

Is a school district fiscal impact statement required under RCW 28A.305.135?

- Yes No

If yes, insert statement here:

The public may obtain a copy of the school district fiscal impact statement by contacting:

Name:
Address:
Phone:
Fax:
TTY:
Email:
Other:

Is a cost-benefit analysis required under RCW 34.05.328?

- Yes: A preliminary cost-benefit analysis may be obtained by contacting:
Name: Kyle Dorsey
Address: PO Box 47600, Olympia, WA 98504-7600
Phone: 360-407-6559
Fax: NA
TTY: See "Assistance for persons with disabilities" above
Email: kyle.dorsey@ecy.wa.gov
Other: N/A
- No: Please explain:

Regulatory Fairness Act Cost Considerations for a Small Business Economic Impact Statement:

This rule proposal, or portions of the proposal, **may be exempt** from requirements of the Regulatory Fairness Act (see chapter 19.85 RCW). Please check the box for any applicable exemption(s):

This rule proposal, or portions of the proposal, is exempt under RCW 19.85.061 because this rule making is being adopted solely to conform and/or comply with federal statute or regulations. Please cite the specific federal statute or regulation this rule is being adopted to conform or comply with, and describe the consequences to the state if the rule is not adopted.

Citation and description:

This rule proposal, or portions of the proposal, is exempt because the agency has completed the pilot rule process defined by RCW 34.05.313 before filing the notice of this proposed rule.

This rule proposal, or portions of the proposal, is exempt under the provisions of RCW 15.65.570(2) because it was adopted by a referendum.

This rule proposal, or portions of the proposal, is exempt under RCW 19.85.025(3). Check all that apply:

- | | |
|---|--|
| <input type="checkbox"/> RCW 34.05.310 (4)(b)
(Internal government operations) | <input type="checkbox"/> RCW 34.05.310 (4)(e)
(Dictated by statute) |
| <input type="checkbox"/> RCW 34.05.310 (4)(c)
(Incorporation by reference) | <input type="checkbox"/> RCW 34.05.310 (4)(f)
(Set or adjust fees) |
| <input checked="" type="checkbox"/> RCW 34.05.310 (4)(d)
(Correct or clarify language) | <input type="checkbox"/> RCW 34.05.310 (4)(g)
((i) Relating to agency hearings; or (ii) process requirements for applying to an agency for a license or permit) |

This rule proposal, or portions of the proposal, is exempt under RCW _____.

Explanation of exemptions, if necessary:

COMPLETE THIS SECTION ONLY IF NO EXEMPTION APPLIES

If the proposed rule is **not exempt**, does it impose more-than-minor costs (as defined by RCW 19.85.020(2)) on businesses?

- No Briefly summarize the agency's analysis showing how costs were calculated. _____
- Yes Calculations show the rule proposal likely imposes more-than-minor cost to businesses, and a small business economic impact statement is required. Insert statement here:

**WA Department of Ecology
Small Business Economic Impact Statement:
Relevant Information for State Register Publication**

Proposed amendments to WAC 173-350 SOLID WASTE HANDLING STANDARDS

This Small Business Economic Impact Statement (SBEIS) presents the:

- Compliance requirements of the proposed rule.
- Results of the analysis of relative compliance cost burden.
- Consideration of lost sales or revenue.
- Cost-mitigating action taken by Ecology, if required.
- Small business and local government consultation.
- Industries likely impacted by the proposed rule.
- Expected net impact on jobs statewide.

A small business is defined by the Regulatory Fairness Act (chapter 19.85 RCW) as having 50 or fewer employees. Estimated costs are determined as compared to the existing regulatory environment—the regulations in the absence of the rule. The SBEIS only considers costs to “businesses in an industry” in Washington State. This means that impacts, for this document, are not evaluated for non-profit or government agencies.

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

This information is excerpted from Ecology's complete set of regulatory analyses of the proposed rule. For complete discussion of the likely costs, benefits, minimum compliance burden, and relative burden on small businesses, see the Regulatory Analyses (Ecology publication no. XX-XX-XXX, JANUARY 2018)

COMPLIANCE REQUIREMENTS OF THE PROPOSED RULE, INCLUDING PROFESSIONAL SERVICES

Baseline

The baseline for our analyses generally consists of existing rules and laws, and their requirements. This is what allows us to make a consistent comparison between the state of the world with and without the proposed rule amendments.

For this proposed rulemaking, the baseline includes:

- The existing rule, chapter 173-350, Solid Waste Handling Standards.
- The authorizing statute, chapter 70.95 RCW, Solid Waste Management – Recycling and Reduction.
- Related laws and rules, including but not limited to:
 - Chapter 173-226, Waste Discharge General Permit Program.

- Chapter 173-340, Model Toxics Control Act – Cleanup.

Proposed rule amendments

The proposed rule amendments that differ from the baseline and are not *specifically* dictated in the authorizing statute or elsewhere in law or rule include:

Applicability

Proposed

- Adding a new exclusion for management of soils within a cleanup site.
- Adding a new exclusion for managing dead livestock.
- Adding a new exclusion for managing non-livestock animal mortalities.
- Adding a new exclusion for reused engineered soil.
- Adding a new exclusion for reuse.
- Adding a new exclusion organic materials used as animal feed.
- Adding an exclusion for land application of farm bedding and on-farm vegetative waste.

Expected impact

While these changes would normally allow more facilities to avoid the costs of compliance with the proposed rule or other potentially overlapping rules – these changes are intended to avoid regulatory overlap – the applicability of the proposed exclusions has not been enforced. We therefore expect a benefit arising from clarity in the applicability of the proposed rule, but without additional benefits of avoided expenditure.

Determination of solid waste

Proposed

- Establishes criteria to determine whether a material is a solid waste.

The proposed rule establishes a set of tests that determine whether a material is a solid waste, except as defined in other sections of the rule.

Expected impact

The proposed rule will make it much easier for stakeholders and local health authorities to determine whether a material is a solid waste. The new section on determination of solid waste also results in the ability to recognize when materials, such as clean, baled cardboard have been processed to a point that handling is not considered solid waste management. This addresses an important concern in the recycling community that their efforts should be rewarded with the recognition that they yield products, not wastes. Facilities that are conditionally exempt under the baseline but more clearly determined not to be a solid waste under the proposed rule could avoid the costs of notification and reporting.

Definitions of solid waste

Proposed

- Redefining clean and contaminated soils and dredged materials.
- Adding a definition for reuse.
- Adding a definition of commingled recyclables.
- Changing the definition of recycling.

Expected impact

The proposed rule amendments would potentially result in increased disposal costs as well as some increased permitting costs at facilities that are not currently permitted. They would also improve clarity as to who is regulated by the rule, and determine that facilities accepting only commodities or other recycled products are no longer solid waste handlers allowing them to avoid permitting or conditional exemption costs.

Beneficial use permit exemptions

Proposed

- Modifying the definition of beneficial use to explicitly exclude the use of solid waste solely as fill and also adding the soil amendment component of the beneficial use permit exemption and land application sections.
- Changing requirements for storage prior to beneficial use to allow for other approved storage methods.

Expected impact

The proposed rule is likely to result in greater flexibility in storage methods prior to beneficial use.

Recycling and material recovery facilities

Proposed

- Incorporating changes made in definitions and combining the standards for recycling and material recovery facilities under one section.

Expected impact

The expected impacts of proposed amendments to this section are discussed in the corresponding sections with which they align: definitions and regulation of material recovery facilities. Making all sections of the rule consistent in definitions, structure, and requirements would provide the benefit of clarity to the regulated community as to whether they are regulated and what compliance requirements are.

While facilities accepting commingled recyclables would no longer be exempt, most are already permitted since they exceed the 5% contamination threshold. Facilities might also choose to no longer accept commingled recyclables, if the resulting overall cost is lower.

Land application

Proposed

- Expanding sampling requirements, by requiring a third sample at three-foot depth at each sampling location.

Expected impact

New permittees using land application would need to analyze one additional sample at each sampling location, during permit application, resulting in increased compliance costs as well as providing the benefit of more accurate information on soil nutrients at depths reached by plant roots.

Transfer stations and drop box facilities

Proposed

- Moving the standards for material recovery facilities to the recycling section and aligning the requirements of the two standards.
- Renaming the Intermediate solid waste handling facilities section Transfer stations and drop box facilities to cover the remaining standards in the section.

Expected impact

Regulating material recovery facilities and recyclers in the same manner and putting them in a separate section from disposal facilities like transfer stations and drop boxes would improve regulatory clarity and equitability.

Piles used for storage or treatment

Proposed

- Changing language so that the rule will apply to facilities that have ongoing pile storage, even if piles are removed within a certain timeframe, but restarted.
- Clarifying the section is applicable to outdoor piles, not indoor piles.
- Adding or changing conditional exemption requirements.
- Changing conditional exemptions for brick, cured concrete, and asphalt.

Expected impact

The proposed rule would likely result in some additional pile facilities providing notification and annual reports. The corresponding benefits would be proper management, improved information on exempt piles, reduced regulatory overlap with other permits and/or regulations, improved planning, and comprehensive records.

Surface impoundments and tanks

Proposed

- Requiring minimum 2-year leak or tightness testing for pipes.
- Requiring access control to have artificial barriers and lockable gates.

Expected impact

The proposed rule would likely create costs for facilities needing to test pipes for leaks, remedy leaks, and document these activities. While the proposed specification of artificial barriers and lockable gates would be a change from the existing broad requirement, existing requirements at facilities that must also comply with requirements for limited purpose and municipal waste landfills likely result in existing compliance with the proposed specification.

Waste tire storage

Proposed

- Changing applicability to include enclosed buildings.
- Changing applicability to include waste tires stored in containers not used for transport, whereas the existing rule could be interpreted to exclude waste tires stored in transportable containers regardless of whether they are actively used to transport tires.
- Updating design standards of waste tire storage facilities to reflect criteria stated in the International Fire Code. Previously, criteria from the Universal Fire Code was used to model the design standards of storage facilities. Some local jurisdictions still use Universal Fire Code, and the proposed rule allows for flexibility.

Expected impact

Applicability changes in the proposed rule would likely result in increased costs to account for, manage, and financially assure long-term management of waste tires stored in enclosed buildings and containers that are not actively used for transport. The update in design standards to reflect the current International Fire Code may lead to some additional associated costs, however, the updated design standards has built in flexibility for local jurisdictions that still use the Universal Fire Code.

The proposed amendments would likely result in improved management of indoor and container-stored tires, improving environmental protection, as well as reducing risks to staff, the public, and first responders in the event of a tire fire.

Waste tire transportation

Proposed

- Separating transportation of waste tires from waste tire storage, Section 350.

Expected impact

Moving requirements for waste tire transportation does not impact behavior, but may provide a benefit of clarity to transporters of waste tires in how they are regulated.

Moderate risk waste handling

Proposed

- Adding a new exemption for pharmaceutical collection.
- Changing requirements for conditional exemptions for limited moderate risk waste facilities and product takeback centers, including closed containers, labeling, and public access control, as well as maintaining containers in good condition, allowing inspections, and requiring labels on containers, respectively.
- Clarifying requirements for impervious surfaces, specifying that floors must only be impervious when the floor itself serves as secondary containment requirements for impervious surfaces, specifying that floors must only be impervious when the floor itself serves as the containment.
- Requiring that trained staff be present when receiving moderate risk waste.

Expected impact

The proposed rule amendments are likely to result in increased costs to meet conditional exemptions at limited moderate risk waste facilities, collection/mobile facilities, and product takeback centers, for training staff, and updating operating plans. They are also likely to result in pharmaceutical collection programs no longer needing a solid waste permit, improved safety for employees and first responders, and environmental safety. More options have been given for facilities to meet the secondary containment requirements, which could result in cost savings for facilities.

Limited purpose landfills

Proposed

- Changing the timeframe for post-closure to whenever the site is determined to be stabilized.
- Requiring environmental covenants.

Expected impact

The proposed rule amendments may result in either longer or shorter post-closure periods, depending on individual landfill attributes. Staff expertise indicates that most will be shorter. The proposed rule amendments would require facilities to perform modeling and analysis to determine financial assurance timeframes.

Requiring environmental covenants will likely result in additional cost to create them, as well as long-run environmental protection and potential reduction of liability and land-use problems.

Inert waste landfills

Proposed

- Adding an additional conditional exemption for inert waste landfills with total capacity between 250 and 2 thousand cubic yards.

Expected impact

The proposed rule amendments are likely to reduce burden on smaller landfills, as well as reduce barriers to entry.

Groundwater

Proposed

- Electronically submitting groundwater data by April 1.
- Requiring additional sample analysis for five analytes.

Expected impact

The proposed rule amendments are likely to increase costs of switching to and using the electronic data submittal system, as well as analytical costs. They are also likely to improve efficiency in data submittal, receipt, and processing, as well as improving accuracy in determining whether groundwater standards have been exceeded.

Financial assurance

Proposed

- Using prevailing wages for financial assurance calculations.
- Adjusting financial assurance for post-closure to reflect changes in how post-closure timeframes are determined.

Expected impact

The proposed rule amendments are likely to result in increased financial assurance requirements for some facilities, and reduced financial assurance requirements for other facilities. They would also provide more certainty that there would be sufficient funds for closure and to maintain post-closure requirements.

Permitting

Proposed

- Update the permit modification and variance sections to be more clear and relevant to current solid waste management practices.
- Add a solid waste permit transfer section for when facility ownership changes.
- Adopt language that is consistent with statutory changes pertaining to WSDA review of permit applications and permits under certain circumstances.

Expected impact

The proposed rule would improve consistency with statute and create a formal process for permit transfers. The explicit permit transfer process would potentially increase costs to new owners of facilities, depending on the facility type and subsequent plans for use, while creating a benefit of ensuring new owners are capable of meeting all permit requirements, financial assurance requirements where applicable, and ensure that solid wastes at an applicable facility continues to be appropriately managed.

Criteria for inert waste

Proposed

- Repealing entire section and reverting to only those wastes listed explicitly in the authorizing statute.

Expected impact

The proposed rule amendments would likely result in some, though likely small, impacts to wastes being taken to inert waste landfills rather than more expensive disposal. Impacts are likely small because inert waste landfills already largely determine which wastes can be disposed of based on the statutory authority to minimize liability.

Reorganization and clarifications with no impact to requirements

Proposed

Multiple changes to rule organization and wording are proposed in order to streamline the rule language and improve clarity. They do not change requirements or applicability.

Expected impact

The proposed rule amendments are likely to improve ease of compliance with the rule, so that facilities are better aware of whether they are covered by the rule, whether they are required to obtain a permit or can obtain an exemption, and what is required of them if permitted or exempt.

COSTS OF COMPLIANCE: EQUIPMENT, SUPPLIES, LABOR, PROFESSIONAL SERVICES, ADMINISTRATIVE COSTS, OTHER

RECYCLING AND MATERIAL RECOVERY FACILITIES

While facilities accepting commingled recyclables would no longer be exempt from permitting under the proposed rule, most are already permitted. We identified ten facilities that would potentially be impacted by this proposed change. If these facilities did incur full permitting costs, actual permitting costs would rely heavily on facility type and attributes. For illustrative purposes, we assumed 10 analytical components to permitting, and 8 hours of engineer time to complete each component, resulting in approximate permitting costs of nearly \$10 thousand. This does not include the costs of fees, or compliance adjustments to facilities and business practices necessary to comply with a permit.

LAND APPLICATION

New permittees using land application would need to analyze one additional sample at each sampling location as part of the permit application, resulting in increased costs. We estimated costs based on one new permit per year, \$20 per additional analysis, and eight representative sample locations per facility. This resulted in total estimated costs of \$160 per year, with an equivalent 20-year present value of nearly \$3 thousand.

TRANSFER STATIONS AND DROP BOX FACILITIES

Impacts to material recovery facilities no longer regulated under the revised and renamed formerly "Intermediate solid waste handling facilities" section, are discussed under Recycling and material recovery facilities above.

PILES USED FOR STORAGE OR TREATMENT

Proposed changes to conditional exemption requirements would result in approximately 24 exempt facilities incurring costs of keeping records, submitting notifications, and annual reporting. We estimated this cost based on 1 hour of time spent by an owner/operator, a \$48.92 hourly wage multiplied by a factor of 2.257 for overhead, and an inflation adjustment of 2.7 percent. This resulted in a cost estimate of approximately \$3 thousand per year, corresponding to a total 20-year present value cost of \$49 thousand.

Changes to exemptions for piles of brick, cured concrete, and asphalt with a water quality sand and gravel or construction stormwater general permit would result in increased exemptions that would incur the costs of notification and annual reporting, rather than the full cost of permitting when recycling these wastes. We estimated reporting cost based on 1 hour of owner/operator time at 59 facilities, a \$48.92 hourly wage multiplied by a factor of 2.257 for overhead, and an inflation adjustment of 2.7 percent. This resulted in a cost estimate of approximately \$7 thousand per year (total across 59 facilities), corresponding to a 20-year present value cost of \$122 thousand.

Facilities that also crush the material into a recycled aggregate product may already be reporting as required under the baseline recycling standards, and would not incur any additional cost. 91 regulated facilities reported in 2015, most or all of which produce recycled aggregate product. A total of 114 facilities reported, including exempt pile facilities that are not required to report under the baseline. If up to half of facilities with piles of brick, cured concrete, or asphalt already report under the baseline, this total present value cost would drop to approximately \$61 thousand.

SURFACE IMPOUNDMENTS AND TANKS

We estimated the cost of leak or tightness testing at a facility with surface impoundments that does not discharge to sewers. This estimate was based a facility incurring the costs of 40 hours of licensed professional engineer time, a \$48.92 hourly wage multiplied by a factor of 2.257 for overhead, and an inflation adjustment of 2.7 percent. This resulted in a cost estimate of approximately \$12 thousand per facility per testing year (testing is semiannual), corresponding to a 20-year present value cost of approximately \$110 thousand.

WASTE TIRE STORAGE

We estimated the costs of permitting including financial assurance statewide to appropriately dispose of all waste tires, because there is currently insufficient data on facilities that are not covered by the baseline rule. This illustrative extreme high-end estimate was based on the assumptions of one waste tire per person per year, approximately 7 million state population, 100 tires per ton, and an average disposal cost of \$250 per ton. This would result in a total cost to dispose of all waste tires in the state of \$17.5 million per year. The proposed rule would not result in costs this high, as many waste tires are managed according to the requirements of the baseline. Expanding the proposed rule's coverage to waste tires stored in enclosed buildings and containers that remain on site would result in changes for some unknown subset of the total waste tires in the state.

If local jurisdictions currently require International Fire Code compliance, the proposed rule does not result in additional costs. If facilities are regulated according to the outdated Universal Fire Code, they might incur additional compliance costs upon implementation of the proposed rule. Effectively, this may mean they could store fewer waste tires per unit of space, resulting in a need to manage tires off site more rapidly and incur disposal costs sooner than they would under the baseline. However, since the design standards in section 350 have built in flexibility that allow for the local jurisdictions to use the fire code of their choosing, there may be little to no change.

MODERATE RISK WASTE HANDLING

The proposed rule amendments are likely to result in increased costs to meet conditional exemptions at limited MRW facilities and product takeback centers. Examples of conditional exemptions to meet include using closed containers, labeling, and access control:

- We assumed using closed containers would require one in ten facilities (approximately 30) to minimally adjust their procedures to keep containers closed.
- We assumed that one percent of the approximately 256 limited MRW facilities, would need to purchase signage, using up to 12 signs at \$20 each. This corresponds to a one-time cost of up to \$800.
- Finally, we assumed one in ten facilities (approximately 30) would need to install additional fencing as applicable, as well as use padlocks.

The requirement to have trained workers present during acceptance of moderate risk waste would likely result in minimal temporary reassignment of workers, during intake periods. We assumed that 12 identified moderate risk waste facilities would need to have one employee undergo hazardous waste worker training. This training costs about \$300, resulting in a one-time cost of \$3,600.

LIMITED PURPOSE LANDFILLS

We estimated the cost of evaluating post-closure timelines, application preparation, and updating post-closure plans for 23 limited purpose landfills. We estimated this cost based on a high-end estimate of 120 hours of engineer time, a \$48.92 hourly wage multiplied by a factor of 2.257 for overhead, and an inflation adjustment of 2.7 percent. This resulted in a one-time cost estimate of approximately \$313 thousand.

Similarly, we estimated the cost of developing environmental covenants at 23 limited purpose landfills, based on 8 hours of legal consultant time, a \$53.45 hourly wage multiplied by a factor of 2.257 for overhead, and an inflation adjustment of 2.7 percent. This resulted in a one-time cost estimate of approximately \$23 thousand.

GROUNDWATER

We estimated costs for 23 limited purpose landfills to set up electronic data submission accounts (if they do not currently have them; this is a high-end estimate), based on 6.25 hours at an hourly wage including overhead of \$150. This total one-time cost is approximately \$22 thousand.

While electronic data submissions itself bears a cost, the incremental cost of providing data to Ecology as compared to the baseline of submitting paper or email documents is likely a cost savings, after initial account setup (if applicable).

For the proposed additional analysis for five constituents per well, we estimated costs for the number of wells at 23 landfills based on each landfill's number of sampling events per year (maximum 4), and \$12 per metals analysis. This total cost is approximately \$27 thousand per year, corresponding to a 20-year present value of \$491 thousand.

FINANCIAL ASSURANCE

Median financial assurance requirements in available data were approximately \$1 million. Some facilities, however, meet financial assurance using a financial test that determines the owner company has sufficient funds to meet requirements. These facilities are not required to acquire additional insurance or bonds. It is not clear from available information whether facilities tend to overestimate or underestimate wages as compared to the prevailing wage. We therefore could not determine whether or how much potential financial assurance requirements would increase or decrease.

The cost of modeling the length of post-closure care is included above under Limited purpose landfills.

PERMITTING

The proposed rule amendment may increase the cost of transferring permits when a facility is sold to a new owner. Local health department processing costs could be passed through to a new owner. The process requires that the new owner demonstrate the ability properly run the facility and meet facility compliance requirements. The occurrences of permit transfer are infrequent and some local jurisdictions that issue solid waste permits may already have fees built into the local solid waste permitting fee ordinances. In addition, under the baseline, facilities are required to have appropriate permits or other compliance behaviors, regardless of whether they are new facility owners, so this cost is potentially one that should already be incurred under the baseline, even if it is not consistently implemented.

CRITERIA FOR INERT WASTE

The proposed rule amendments would likely result in some, though likely small, impacts to wastes being taken to inert waste landfills rather than more expensive disposal. Impacts are likely small because inert waste landfills already largely determine which wastes can be disposed of based on the statutory authority to minimize liability.

COMPARISON OF COMPLIANCE COST FOR SMALL VERSUS LARGE BUSINESSES

The median affected small business likely to be covered by the proposed rule amendments employs an average of approximately 9 people. The median largest ten percent of affected businesses employ an average of approximately 76 people. All quantitative cost estimates in this analysis are point estimates (not differentiated by size or range), and dividing any number by 9 employees versus 76 employees will yield a disproportionate compliance cost impact per employee.

We conclude that the proposed rule amendments are likely to have disproportionate impacts on small businesses, based on the possible quantified cost estimates, and therefore Ecology must include elements in the proposed rule amendments to mitigate this disproportion, as far as is legal and feasible.

CONSIDERATION OF LOST SALES OR REVENUE

Businesses that would incur costs could experience reduced sales or revenues if the fee changes would significantly affect the prices of the goods they sell. The degree to which this could happen is strongly related to each business's production and pricing model (whether additional lump-sum costs significantly affect marginal costs), as well as the specific attributes of the markets in which they sell goods, including the degree of influence of each firm on market prices, as well as the relative responsiveness of market demand to price changes.

MITIGATION OF DISPROPORTIONATE IMPACT

The RFA (19.85.030(2) RCW) states that:

Based upon the extent of disproportionate impact on small business identified in the statement prepared under RCW [19.85.040](#), the agency shall, where legal and feasible in meeting the stated objectives of the statutes upon which the rule is based, reduce the costs imposed by the rule on small businesses. The agency must consider, without limitation, each of the following methods of reducing the impact of the proposed rule on small businesses:

- a) Reducing, modifying, or eliminating substantive regulatory requirements;
- b) Simplifying, reducing, or eliminating recordkeeping 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 including those suggested by small businesses or small business advocates.

Ecology considered all of the above options, and included the following legal and feasible elements in the proposed rule amendments that reduce costs. In addition, Ecology considered the alternative rule contents discussed in Chapter 6 of the Regulatory Analyses document, and excluded those elements that would have imposed excess compliance burden on businesses.

- Adding exclusions, exceptions, and clarifications to prevent overlapping permitting and regulatory requirements.
- Simplifying determination of solid wastes.
- Expanding permit exemptions to pharmaceutical takeback.
- Expanding the definition of recycling.
- Expanding regulatory flexibility regarding impervious surfaces.
- Expanding regulatory flexibility regarding protecting wastes from weather.
- Making post-closure timeframes dependent on site attributes rather than a rigid number of years.
- Adding a second exemption tier for inert waste landfills.

SMALL BUSINESS AND LOCAL GOVERNMENT CONSULTATION

Ecology involved small businesses and local government (or representative organizations) in its development of the proposed rule amendments, as part of its outreach and rule development process. This included:

- Email listserv "ECY-SW-Handling-Standards", with 798 current members, including industry groups, cities, and counties.
- Rule development workgroup, including representatives from: Waste Management, Washington Utilities and Transportation Commission, Jurisdictional Health Authorities, Washington Refuse and Recycling Association, Washington Aggregates & Concrete Association, Waste Connections, City of Spokane, Snohomish County, Zero Waste Washington, Jurisdictional Health Authorities, Washington State Department of Transportation, Washington State Recycling Association
- Additional attendance at meetings by: Washington Refuse and Recycling Association, Washington Utilities and Transportation Commission, Cedar Grove, Bart Kale & Associates/Nucor Steel, ISRI, Waste Connections, Washington State Department of Transportation, Snohomish County, Snohomish County, King County Solid Waste, Cedar Grove
- Workgroup meetings: January 5, 2016; August 11, 2015; June 16, 2015; February 18, 2015; February 3, 2015; January 20, 2015; January 6, 2015, Conference Call; December 16, 2014; December 2, 2014, Conference Call; November 18, 2014; November 4, 2014, Conference Call; October 17, 2014; October 7, 2014, Conference Call; September 16, 2014; August 22, 2014; July 9, 2014
- Public workshops: July 21, 2016, Lacey; July 26, 2016, Ellensburg; July 27, 2016, Spokane

NAICS CODES OF INDUSTRIES IMPACTED BY THE PROPOSED RULE

- 111X Crop Production
- 112X Animal Production and Aquaculture
- 2123 Nonmetallic Mineral Mining and Quarrying
- 2213 Water, Sewage and Other Systems
- 3253 Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing
- 4239 Miscellaneous Durable Goods Merchant Wholesalers
- 4413 Automotive Parts, Accessories, and Tire Stores
- 4441 Building Material and Supplies Dealers
- 4442 Lawn and Garden Equipment and Supplies Stores
- 4451 Grocery Stores
- 4461 Health and Personal Care Stores
- 4471 Gasoline Stations (also 4451 grocery stores)
- 4533 Used Merchandise Stores
- 5621 Waste Collection
- 5622 Waste Treatment and Disposal
- 5629 Remediation and Other Waste Management Services

IMPACT ON JOBS

Ecology used the Washington State Office of Financial Management’s 2007 Washington Input-Output Model to estimate the impact of the proposed rule on jobs in the state. The model accounts for inter-industry impacts and spending multipliers of earned income and changes in output.

The proposed rule amendments will result in transfers of money within and between industries. Transfers would primarily occur to or from engineering professions, as well as to financial or insurance sector providers of financial assurance. Jobs impact calculations were based on cost increases and reductions that could be fully quantified across an industry or industries for the proposed rule amendments.

In the first year, when one-time and annual costs increases and reductions would be incurred, seven full-time employee positions (FTEs; a full time position for one year) could be lost, not including transfers of funds to and from other industries. In subsequent years, when only annual cost increases and reductions would be incurred, one FTEs could be lost in perpetuity, not including transfers of funds to and from other industries.

These prospective changes in overall employment in the state are the sum of multiple small impacts across all industries in the state.

The public may obtain a copy of the small business economic impact statement or the detailed cost calculations by contacting:

Name: Kyle Dorsey
Address: PO Box 47600, Olympia, WA 98504-7600
Phone: 360-407-6559
Fax: NA
TTY: See “Assistance for persons with disabilities” above.
Email: kyle.dorsey@ecy.wa.gov
Other: N/A

Date: 1/22/2018	Signature: 
Name: Polly Zehm	
Title: Deputy Director	