



DEPARTMENT OF  
**ECOLOGY**  
State of Washington

# **Preliminary Cost Benefit & Least Burdensome Analyses**

Chapter 173-303 WAC

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*Dangerous Waste Regulations*

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# **Preliminary Cost Benefit And Least Burdensome Analyses**

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Chapter 173-303 WAC

*Dangerous Waste Regulations*

Hazardous Waste and Toxics Reduction Program  
Washington State Department of Ecology  
Olympia, Washington 98504-7710



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## Introduction

The Washington State Department of Ecology (Ecology) is proposing to amend Chapter 173-303 WAC, *Dangerous Waste Regulations*. The Administrative Procedures Act (RCW 34.05.328(d)(e)) requires two types of analyses before adopting a significant legislative rule – a cost-benefit analysis and a least burdensome alternative analysis. This report provides the results of these analyses and shows the potential impacts associated with the proposed rule.

The dangerous waste rule targets a wide variety of wastes that can damage human health and the environment in the event of exposure. Wastes are classified as either ignitable, corrosive, reactive or toxic. Reducing the potential for exposure and damage is a primary reason for the regulation.

RCW 34.05.328 requires Ecology to review the rule amendments to determine whether the probable benefits are greater than the probable costs and that the version proposed is the least burdensome for those who are required to comply.

Based on quantitative and qualitative data, Ecology determines that the probable benefits of the proposed rule are greater than the probable costs. Ecology also determines that the rule being proposed is the least burdensome version of the rule.

## Background

Ecology amended the dangerous waste rules in 2004 to incorporate the federal Environmental Protection Agency's (EPA) hazardous waste requirements into the state's rules. Doing so kept the rule current with the federal program and the regulated community can primarily work with one environmental agency. Other purposes of the 2004 amendments included:

- Implementing recommendations of the Hazardous Waste Facilities Initiative.
- Adding mercury-containing devices to the universal waste rule.
- Updating export requirements.
- Adopting air emission permit rules.
- Updating corrective action rules.

Changes to state-only requirements were primarily technical in nature; however, implementing the Hazardous Waste Facilities Initiative to extend financial requirements to recyclers and used oil processors did impact those who had to comply.

## **Purpose of This Rule Proposal**

The proposed 2009 amendments to the dangerous waste rules will incorporate several federal hazardous waste rules and state-only requirements, including:

- Updating manifest requirements (federal).
- Updates to the biological and chemical testing methods (state-only).
- Merging universal waste rules for mercury-containing devices and mercury thermostats (federal).
- Incorporating some of the Environmental Protection Agency's (EPA) Burden Reduction Initiative rule (federal).
- Deleting the exemption from closure and financial responsibility for chlorofluorocarbon (CFC) recyclers (federal).

## **Comparison of the Current and Proposed Rules**

### **Current rule requirements**

The dangerous waste rules include waste management standards for generators of hazardous waste and for facilities that treat, store, dispose, or recycle those wastes. The rules combine federal and state requirements. Washington is authorized by EPA to implement the federal hazardous waste program. This means the state rule must be consistent with and no less stringent than the federal rules. In some areas, the existing state rules are more stringent than the federal rules. This is necessary for safer waste management, better environmental protection, and moving wastes up the waste management hierarchy- for example, to encourage recycling.

Requirements in the dangerous waste rules include:

- Identifying wastes that are dangerous or hazardous.
- Time limits before wastes must be moved off-site.
- Storage and accumulation standards.
- Recycler and used oil facility requirements.
- Facility permit standards.

### **Description of proposed changes**

Ecology proposes to amend the dangerous waste rules by adding several federal hazardous waste rules. Some of these federal rules, such as the manifest rule, are already in effect in Washington State and were developed as part of federal rule making.

The proposed federal requirements include:

- New manifest requirements; a federal requirement that will also apply to generators of state wastes.
- Coordinated air emission permitting and hazardous waste permitting; a federal requirement, incinerator permitting has been streamlined.
- Combined universal waste rules for mercury-containing devices and mercury thermostats.
- Portions of EPA's Burden Reduction Initiative rules; these federal rule changes are mostly exempt. There will be a simplified process for generators needing to do contingency plans. Also, facilities are being offered alternatives to Appendix IX sampling.
- Surface impoundments and landfills who actively manage waste will be required to submit information on the potential for public exposure to dangerous wastes or dangerous constituents through releases related to the unit.
- Extensive minor corrections throughout the regulation.

Changes to state-initiated requirements consist mainly of technical and editorial corrections and clarifications. Like the existing rules, the proposed state rules are more stringent in some areas than the federal rules. Other changes include:

- Updated chemical and biological testing methods for state wastes.
- No longer exempting CFC recyclers from closure and financial responsibility.
- Used oil processors and recyclers will have a new financial assurance option.
- Amended permit pre-application requirements, to include:
  - Clarifying that "twenty-five percent facility expansion" means "storage design capacity." The current regulation refers to "process design capacity."
  - Clarifying that "a significant expansion" is a single or cumulative increase of greater than twenty-five percent of the storage design capacity as described in the facility's original Part A permit application or of the storage capacity approved for the previous significant expansion.
  - Deleting obsolete language that exempted two recycling facilities from siting criteria when the original rule was written, and exempting recycling facilities needing a storage permit from siting criteria and Citizen/proponent negotiations (CPN) if they meet strict limitations.
  - Exempt certain existing facilities applying for a significant expansion from Citizen/proponent negotiations.

## Scope of Analysis

The following changes under the proposed rule will be analyzed relative to the baseline.

Proposed federal requirements are exempt from analysis when the rule change solely impacts generators of federal hazardous waste and therefore will not be analyzed here. If the federal rule impacts those generators and waste management facilities that have federal and state wastes, an analysis may be needed. The proposed federal requirements include:

- New manifest requirements, but it is determined there is no cost impact and no analysis is needed.
- Coordinated air emission permitting and hazardous waste permitting; there is a qualitative cost savings due to streamlining.
- Combined universal waste rules for mercury-containing devices and mercury thermostats; a federal exempt requirement so no analysis is needed.
- Portions of EPA's Burden Reduction Initiative rules; these federal rule changes are mostly exempt. There will be qualitative savings from simplifying requirements.
- Surface impoundments and landfills must submit information on the potential for public exposure; possible costs may be incurred by at least one facility and are analyzed.

The proposed changes to state-only requirements consist mainly of technical and editorial corrections and clarifications. Other changes include:

- Updated chemical and biological testing methods for state wastes. A cost savings analysis will be done on biological testing methods but not on chemical testing methods. A new chemical test method has been added as an optional non-mandatory test. A cost savings analysis is not needed because the test is not mandatory. The new method may have potential future cost savings dependent on its further development.
- CFC recyclers will be required to have closure and financial responsibility. Costs are incurred by recyclers and the savings to taxpayers and industries are analyzed.
- New financial assurance options for used oil processors and recyclers are analyzed as a cost savings.
- Amended permit pre-application requirements that exempt recycling facilities needing a storage permit from siting criteria and citizen/proponent negotiations, if they meet strict limitations. Cost savings are associated with this change and analyzed.

## Baseline for Analysis

The baseline for this analysis is the existing dangerous waste rules, last updated in 2004. These 2004 updates include federal hazardous waste requirements, new federal requirements developed since then, and updated state requirements.

The *Dangerous Waste Regulations* combine federal and state requirements for waste management standards. Waste management standards apply to generators of hazardous waste and to the permitted facilities that take these wastes for treatment, recycling or disposal. The rules require generators and facilities to identify wastes that are dangerous or hazardous and follow waste storage and accumulation standards. Standards are in place for recyclers and used oil facilities, and for facilities needing Resource Conservation Recovery Act (RCRA) permits.

Dangerous wastes are transported by approved transporters on hazardous waste manifests, a system which ensures proper waste tracking from cradle to grave.

## Analysis of Costs & Benefits

### Costs

**Exposure Information:** Ecology is proposing to adopt a federal requirement that also applies to facilities taking state-only waste. The proposed amendment would require any facility that stores, treats or disposes dangerous waste in a surface impoundment or landfill to provide information on the potential for public exposure to the dangerous wastes or dangerous elements through releases from the facility.

Only two facilities in Washington have active landfills. One already requires this type of information with their permit applications. Therefore, there are no costs associated with this facility.

The other landfill is reaching capacity and will close in the next couple of years. Therefore, it is unlikely this facility will have to meet this requirement. However, if they do, they will likely conduct a risk assessment to make the required determinations and their consulting firm has estimated this assessment at \$100,000<sup>1</sup>. Therefore, to be conservative, Ecology has estimated this requirement at \$100,000.

**CFC Closure and Financial Responsibility:** Ecology is removing the exemption for CFC recyclers from closure and financial responsibility. There is only one CFC recycler in Washington. We estimate this facility will need to provide Ecology with a financial assurance guarantee of about \$17,500 and pay 2.5 percent a year for the new requirement. This will cost them \$438 annually. However, the worst-case scenario is the recycler will have to guarantee \$43,000 and pay

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<sup>1</sup> E-mail, April 30, 2008, Anchor Environmental L.L.C. "If the interim status is terminated, the... (rough estimate) answer is they would need to perform a risk assessment and that might cost around \$100,000."

4 percent per year which will cost \$1,700 annually.<sup>2</sup> Again, to be conservative, Ecology estimates this requirement at \$1,700 a year.

**Manifesting:** EPA and the federal Department of Transportation created a new hazardous waste manifest form that all generators are required to use. States are required to adopt the manifest rule to ensure all states are manifesting federal and state-only waste consistently. This is only a change in manifest requirements and will not change the amount of time needed to fill out the form. This change imposes no costs.

## Benefits and Cost Savings

**Additional Toxicity Data Sources:** The proposed rule allows the use of two new data sources generators can use to identify dangerous waste in their waste stream:

- ECOTOXicology database (ECOTOX).
- Hazardous Substance Data Bank (HSDB).

The current data source is the Registry of Toxic Effects of Chemical Substances (RTECS), which has a major limitation in that it does not include any data on aquatic toxicity. In the past, generators have designated their waste using RTECS only to find the waste would not have designated if fish toxicity had been used.

ECOTOX has extensive aquatic toxicity along with much of the same information as RTECS. HSDB has both types of toxicity, although not in as much detail. Also, ECOTOX and HSDB are free, so allowing these data sources means that generators don't have to pay for access to RTECS and they can access both over the Internet. There are 4,356 generators who either have or should have registered a Site Identification number with Ecology in 2006. Ten percent of these have to do state-only evaluation and half of those currently need to pay for RTECS. On average RTECS costs about \$600 a year.<sup>3</sup> This would be a total savings of \$140,000 a year.

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<sup>2</sup> See Appendix 2 for financial assurance calculations.

<sup>3</sup> Ecology looked at 5 other sources for costs of RTECS subscriptions, in addition to what Ecology pays for RTECS. Ecology- Email, August 29, 2007, "RTECS costs Ecology \$500 per year but that is for 5 links, i.e. 5 people from Ecology could access RTECS simultaneously, one from each region and HQ... [therefore we estimate to] pay for RTECS at a conservative cost of \$100."

ECIS- [http://www.nisc.com/cis/RTECS\\_Analysis\\_June\\_2007.pdf](http://www.nisc.com/cis/RTECS_Analysis_June_2007.pdf)

Symyx- [http://www.mdl.com/products/pdfs/rtecs\\_orderform.pdf](http://www.mdl.com/products/pdfs/rtecs_orderform.pdf)

CCOHS- <http://www.ccohs.ca/products/rtecs/>

CAS- <http://www.cas.org/ASSETS/9EDAD1B59C9442F6AFE411322726DEE0/stnprice.pdf>

NISC- Email, April 24, 2008, NISC, "Our pricing starts with single user on a network. Single Site Access- Single concurrent user (one user at a time access): US\$480.00 [www.nisc.com](http://www.nisc.com)

**Biological Testing Methods:** Ecology is proposing to eliminate the “percentage solid determinations” for generators submitting waste for bioassay testing. Currently, Ecology’s toxicity bioassay method requires each sample to undergo a percent solid determination. This value is reported in the final data summary. The original intent of this requirement was to adjust the sample amount used in the test, based on water content. Because of technical problems, the percentage moisture is never used in the method and the method cannot be defensively changed to include it. This proposed amendment affects nine facilities currently certified by Ecology to conduct this method, but only one does its own sample and does not run customers’ samples. Ecology conducted a survey of the remaining eight facilities to calculate their savings, which will be primarily from the employee time-costs.

On average, facilities use drying ovens to conduct these tests less than three percent of the time and therefore save very little in drying oven costs and maintenance. It costs an average of \$950 to conduct a fish bioassay, but only \$41 is related to the “percentage solid determination” and only 25 tests are being conducted a year. This will save generators a total of \$1,000. The main savings is employee time for labs not having to run the test. We estimate this savings at about 1 hour per week. A clinical laboratory technologist makes about \$24/hour<sup>4</sup> creating a total savings of \$8,700 for all facilities. Therefore, eliminating this requirement will create a total cost savings for generators and labs of \$10,000 a year.

**Siting Criteria:** Ecology is proposing that recycling facilities that need a waste storage permit to support recycling will be exempt from siting criteria and citizen/proponent negotiations (CPN). If the facility is doing any waste treatment, they will lose the exemption. In general, this exemption will apply to relatively simple operations that manage a few limited waste streams. Part of CPN is mandatory for non-exempt facilities. A minimum level of public notice and meetings are required. Ecology estimates the initial cost is \$1,000. CPN can end there and usually does. However, if CPN continues after the first public meeting, the local government can apply for a grant from Ecology for up to \$50,000 to cover the cost. If the process needs more funding, the local government can apply to renew the grant for another \$50,000. Therefore, the cost can range from \$1,000 to \$100,000.

It is hard to know how many facilities this will affect, since each recycling facility will make a business decision as to whether they want a storage permit or not. Ecology estimates in the near future no more than three facilities will use this and over the long term about ten facilities. Using the low range estimate of \$1,000, this creates a total savings of about \$3,000 in the first year and at least \$10,000 over time.

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<sup>4</sup> Bureau of Labor Statistics- <http://www.bls.gov/oco/ocos096.htm>

**New Financial Instrument:** This proposed amendment adds another financial assurance option for used oil processors and recyclers. They may use assigned security deposits held in a Washington State bank. There are no fees and can only be accessed if Ecology gives permission. Fifteen smaller facilities are expected to be affected. Their closure plan estimates range from \$10,000-\$50,000. This will benefit facilities with bad credit or similar situations. This would be an average savings of \$200-\$400 per facility per year for a total of about \$4,500.

**CFC Closure and Financial Responsibility:** Ecology is removing the exemption for CFC recyclers from closure and financial responsibility. Closure and financial responsibility ensures that businesses don't abandon a contaminated site and leave taxpayers with the cleanup costs. Based on the "worst-case" and "most likely" case scenarios and the likelihood that the facility will go bankrupt, the requirement of CFC facilities having financial assurance would save the state an estimated \$450<sup>5</sup> a year. Additional cost savings are realized through avoidance of administrative costs related to closure.

The Tacoma Cleancare site is a good example of this. This site was orphaned and to date Ecology has spent \$350,000<sup>6</sup> over ten years. EPA absorbed most costs and spent \$4.3 million<sup>7</sup> in the first year to close out the site. An orphan site is the worst-case scenario, but the main motivator for requiring financial assurance. Therefore, the total potential 20-year present value cost savings for industry taxpayers for this requirement is \$4,600,000. Using the average real rate on treasury bills of 1.88 percent, this will be an annual savings of \$280,000 a year.

## Qualitative Cost Savings

**Incinerator Permitting:** This proposed requirement gives Ecology and facilities more options on how to permit a dangerous waste incinerator by streamlining the permitting process. If a facility gets a Maximum Achievable Control Technology (MACT) air permit, the dangerous waste program would still issue a separate permit to address waste issues, but would not need to write the part of the permit that covers air issues already covered by the MACT permit. This is a cost savings because it reduces duplication and the administrative process for the part of the permit that is already covered by a different set of regulations (air program).

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<sup>5</sup> Cost to the State = ("Worst case" cost estimate) x (50% chance of occurrence) x (probability of facility bankruptcy) + ("Most likely" cost estimate) x (50% chance of occurrence) x (probability of facility bankruptcy) = (42,722.45) x (.5) x (.015) + (17,453.39) x (.5) x (.015) = **\$451.32**

Bankruptcy rate comes from ([http://www.usatoday.com/money/smallbusiness/columnist/abrams/2004-05-06-success\\_x.htm](http://www.usatoday.com/money/smallbusiness/columnist/abrams/2004-05-06-success_x.htm)) where it says that 2-3% of businesses older than 5 years go under every year. Based on the above article and the growth and longevity of this business, Ecology estimated a bankruptcy rate for them of 1.5%.

<sup>6</sup> From 8/1/98 - 9/30/08 Ecology has spent a total of \$350,050.89: \$234,327.87 in staff charges, \$113,717.66 in goods and services, \$1,987.00 in lab costs and \$18.36 in travel.

**Contingency Plan:** Ecology is allowing owners and operators to develop one contingency plan that meets all regulatory requirements for use in emergencies or sudden or nonsudden releases, which threaten human health or the environment. Ecology suggests the plan be based on the National Response Team's Integrated Contingency Plan Guidance<sup>8</sup>, which can be found online. This creates a cost savings by allowing facilities to consolidate requirements for contingency planning from different programs into one plan.

**Burden Reduction:** Ecology is proposing another option for facilities that have to conduct Appendix IX Sampling. Appendix IX is a groundwater monitoring list created by EPA for large Treatment, Storage and Disposal facilities (TSDs). Facilities may consult with Ecology on a case-by-case basis for more specific and less expensive sampling. The analysis of one Appendix IX groundwater sample is \$2,400.

## Health Costs

Health effects from potential chemical exposure depend on the chemical and nature of the exposure. The Agency for Toxic Substances and Disease Registry (ATSDR)<sup>9</sup> developed a list of priority health conditions to evaluate potential health risks. This list gives an idea of the affects on human health that Ecology is working to avoid, as well as some of the associated costs; not all effects have estimates. Many of the following health costs reported in this analysis are from the EPA Cost of Illness Handbook<sup>10</sup>. The Handbook gives inflation data based on the Consumer Price Index Medical Care Services and the costs reported here are in 2007 dollars. The health conditions that ATSDR identifies include:

- Birth defects and reproductive disorders
- Cancer
- Immune function disorders
- Kidney dysfunction
- Liver dysfunction
- Lung and respiratory diseases
- Neurotoxic disorders

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<sup>7</sup> EPA Superfund Fact Sheet Tacoma, WA CleanCare-  
[http://yosemite.epa.gov/R10/CLEANUP.NSF/9f3c21896330b4898825687b007a0f33/41acf49d06cb975a88256856005e40f2/\\$FILE/1100cleancare+Final.pdf](http://yosemite.epa.gov/R10/CLEANUP.NSF/9f3c21896330b4898825687b007a0f33/41acf49d06cb975a88256856005e40f2/$FILE/1100cleancare+Final.pdf)

<sup>8</sup> [http://www.nrt.org/Production/NRT/NRTWeb.nsf/AllAttachmentsByTitle/A-26IntegratedContingencyPlan\(ICPorOnePlan\)Guidance/\\$File/NRT%20ICPG.pdf?OpenElement](http://www.nrt.org/Production/NRT/NRTWeb.nsf/AllAttachmentsByTitle/A-26IntegratedContingencyPlan(ICPorOnePlan)Guidance/$File/NRT%20ICPG.pdf?OpenElement)

<sup>9</sup> [http://www.atsdr.cdc.gov/mrls/compendium\\_of\\_papers\\_on\\_mrls\\_and\\_health\\_effects.html](http://www.atsdr.cdc.gov/mrls/compendium_of_papers_on_mrls_and_health_effects.html)

<sup>10</sup> <http://www.epa.gov/oppt/coi/pubs/toc.html>

**Birth defects and reproductive disorders:**

The EPA Cost of Illness Handbook estimates lifetime costs for seven of these disorders:

<b>Disorder</b>	<b>Estimated Lifetime Cost</b>
Low birth weight	\$128,000 to \$550,000
Cleft palate	\$35,000 to \$40,000
Upper limb reduction	\$48,000 to \$57,000
Lower limb reduction	\$76,000 to \$106,000
Heart defects	\$180,000 to \$600,000
Spina bifida	\$321,000 to \$420,000
Cerebral palsy	\$1.1 million
Down syndrome	\$1.2 million

**Cancers:**

The EPA Cost of Illness Handbook identifies and lists lifetime medical costs for different types of cancers:

<b>Type of Cancer</b>	<b>Estimated Lifetime Cost</b>
Cancers covered	Average \$131,000
Lung cancer	\$81,000 to \$170,000
Kidney cancer	\$71,000 to \$155,000
Stomach cancer	\$89,000 to \$163,000
Colorectal cancer	\$165,000 to \$224,000
Bladder cancer	\$171,000 to \$249,000

**Kidney Dysfunction:**

Renal failure extensive enough to cause a need for dialysis ranges from \$46,000 to \$117,000 per year. Tiredness and weakness has an annual cost of \$20,000. Chronic headaches cost \$31,000.

**Lung and Respiratory Diseases:**

The lifetime cost of asthma ranges from \$24,000 to \$35,000 for an average patient and from \$114,000 to \$160,000 for a patient with more severe asthma.

**Neurotoxic Disorders:**

Minor neural damage, which reduces IQ, reduces the function of the individual in all areas of life. Without retardation, loss of IQ generates a loss of productivity that is valued at \$9,076, in 2005 dollars, with a cost range valued from \$4,053 to \$20,169. A Center for Disease Control and Prevention (CDC) study also estimates the lifetime costs for vision and hearing impairment, which may result from neural damage. Lifetime vision impairment costs are \$683,000 and lifetime hearing impairment is estimated at \$503,000.<sup>11</sup>

**Quantified Net Benefits**

Ecology expects the net value of the law and the rule together will be \$336,000 per year.

<b>Costs and Benefits of Proposed Changes to Chapter 173-303 WAC <i>Dangerous Waste Regulations</i></b>	
<b>COSTS</b>	
Exposure information	\$100,000
CFC closure and financial responsibility	\$1,700
<b>Total Costs</b>	<b>\$101,700</b>
<b>BENEFITS</b>	
Additional toxicity sources	\$150,000
Eliminating % Solid Determination	\$10,000
Exemptions from siting criteria	\$3,000
New financial insurance	\$4,500
CFC closure and financial responsibility	\$280,000
<b>Total Benefits</b>	<b>\$437,500</b>
<b>Benefits minus Costs = Total Net Benefits</b>	<b>\$335,800</b>

**Least Burdensome Analysis**

RCW 34.05.328(1)(e) requires Ecology to “determine, after considering alternative versions of the rule and the analysis required under (b), (c), and (d) of this subsection, that the rule being adopted is the least burdensome alternative for those required to comply with it that will achieve the general goals and specific objectives stated under (a) of this subsection.”

Based on research and analysis required by RCW 34.05.328(d)(e) Ecology determines:

*There is sufficient evidence that the rule is the least burdensome version of the rule for those who are required to comply, given the goals and objectives of the law.*

<sup>11</sup> <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5303a4.htm>

Most of the amendments to the dangerous waste rule create cost savings.

<b>COST SAVINGS</b>	
Additional toxicity sources	\$150,000
Eliminating % Solid Determination	\$10,000
Exemptions from siting criteria	\$3,000
New financial insurance	\$4,500
CFC closure and financial responsibility	\$280,000
<b>Total cost savings</b>	<b>\$437,500</b>

Even though Ecology is not adopting most of EPA's Burden Reduction Rule, Ecology is adopting some of those changes. An alternative would have been to not adopt any of the federal changes that were part of the EPA's Burden Reduction Rule.

Ecology changed the dry weights analysis on the Biological Test Methods. If Ecology had not made this change, the requirements would have been more burdensome.

Ecology is giving generators more options for data that they can use for waste designations. The new data will be free to use.

Ecology considered making changes to the list of explosives by including Division 1.4 and 1.6 explosives. It was not clear that explosives in these divisions would be dangerous waste. Because of this reason and because it would cost generators extra for managing non-dangerous waste explosives as dangerous waste, it was not included in the rule changes.

This rule is the least burdensome because Ecology chose to make many of these cost saving changes. A more burdensome alternative would have been to not make these changes.

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## Crosswalk of Amendments to Chapter 173-303 WAC

### Dangerous Waste Regulations - Chapter 173-303 WAC - Amendments List for Economic Analysis

Appendix A- Updated Supplement to Cost/Benefit Analysis and Small Business Economic Impact Statement- June 2007

**Table 1. Codes for Economic Analysis**

Generators or TSDs	Requirements	
	<i>Federal</i>	<i>State</i>
<i>Federal</i>	FF*	SF
<i>State Only</i>	FS	SS

\*Note that a federal requirement that impacts generators of federally regulated hazardous waste is exempt from economic analysis in accordance with 34.05.328 and 19.85.

**Table 2. Codes for Compliance Criteria**

Code	Explanation
NA	Analysis Not Required
#	Numbering
E	Edit Only
K	Clarification
CS	Cost Savings
Q	Analysis Required
Z	Consistency
N	Necessary to Retain Existing Rule

**Table 3. Analysis of provisions being proposed for adoption**

<b>WAC 173-303- Amended Section (Proposed)</b>	<b>Federal Requirement (Abbreviated Rule Name)</b>	<b>Notes</b>	<b>Federal or State Requirement Codes</b>	<b>34.05.328 and 19.85 Compliance Criteria</b>	<b>Explanation of changes and analysis needed</b>
<b>FEDERAL RULES BEING ADOPTED</b>					
070(8)(c)	Used Oil		FF	NA	Federal Requirement- exempt
515(3) IBR	Used Oil		FF	NA	Federal Requirement- exempt
515(11) IBR	Used Oil		FF	NA	Federal Requirement- exempt
691(1)(g)	NESHAPS		FF	NA	Federal Requirement- exempt
400(3)(a)	NESHAPS		FF	NA	Federal Requirement- exempt
071(3)(kk)(i)	Dyes and Pigments		FF	NA	Federal Requirement- exempt
071(3)(kk)(iii)	Dyes and Pigments		FF	NA	Federal Requirement- exempt
071(3)(kk)(v)	Dyes and Pigments		FF	NA	Federal Requirement- exempt
140(2)(a)	Dyes and Pigments		FF	NA	Federal Requirement- exempt
9904(1) & (2)	Dyes and Pigments		FF	NA	Federal Requirement- exempt
9905	Dyes and Pigments		FF	NA	Federal Requirement- exempt
040 Definitions	Manifest Rule		FF, FS	NA	Federal Requirement- exempt- the manifest requirements apply to all generators regardless of whether they have federally regulated waste or state-only waste. EPA created a new form that all generators are required to use and states are required to adopt all of the rule since it was put out by both EPA and Department of Transportation to ensure that all states are manifesting wastes the same way.
Designated Facility	Manifest Rule		FF, FS	NA	Federal Requirement- exempt
Manifest	Manifest Rule		FF, FS	NA	Federal Requirement- exempt
Manifest tracking number	Manifest Rule		FF, FS	NA	Federal Requirement- exempt
160(2)(a)	Manifest Rule		FF, FS	NA	Federal Requirement- exempt
180	Manifest Rule		FF, FS	NA	Federal Requirement- exempt

WAC 173-303- Amended Section (Proposed)	Federal Requirement (Abbreviated Rule Name)	Notes	Federal or State Requirement Codes	34.05.328 and 19.85 Compliance Criteria	Explanation of changes and analysis needed
180(7)	Manifest Rule		FF, FS	NA	Federal Requirement- exempt
180(8)	Manifest Rule		FF, FS	NA	Federal Requirement- exempt
190(3)(b)	Manifest Rule		FF, FS	NA	Federal Requirement- exempt
190(4)	Manifest Rule		FF, FS	NA	Federal Requirement- exempt
200(6)	Manifest Rule		FF, FS	NA	Federal Requirement- exempt
230(1)	Manifest Rule		FF, FS	NA	Federal Requirement- exempt
230(2)(c)(d)(e)	Manifest Rule		FF, FS	NA	Federal Requirement- exempt
180(1)	Manifest Rule		FF, FS	NA	Federal Requirement- exempt
250(1) & (9)	Manifest Rule		FF, FS	NA	Federal Requirement- exempt
250(6)	Manifest Rule		FF, FS	NA	Federal Requirement- exempt
370(1) – (8)	Manifest Rule		FF, FS	NA	Federal Requirement- exempt
390(1)	Manifest Rule		FF, FS	NA	Federal Requirement- exempt
083(2)(b)(iii)(A)	SW-846		FF	NA, N	Federal Rule- not being adopted EPA no longer requires the use of SW-846. We are retaining the requirement to use these test methods. Rule changes are necessary to clarify that we are not adopting the federal rule.
083(2)(b)(iii)(B)	SW-846		FF	NA, N	Federal Rule- not being adopted
090(5)(a)(i)	SW-846		FF	NA, N	Federal Rule- not being adopted
110(3) (d)	SW-846		FF	NA, N	Federal Rule- not being adopted
110(3)(f)	SW-846		FF	NA, N	Federal Rule- not being adopted
110(3)(g)	SW-846		FF	NA, N	Federal Rule- not being adopted
140(2)(a)(i)	SW-846		FF	NA, N	Federal Rule- not being adopted
140(4)(b)(iii)	SW-846		FF	NA, N	Federal Rule- not being adopted
300(5)(f)	SW-846		FF	NA, N	Federal Rule- not being adopted
380(1)(c) and (f)	SW-846		FF	NA, N	Federal Rule- not being adopted
400(3)(c)(xiii)	SW-846		FF	NA, N	Federal Rule- not being adopted
515(10)	SW-846		FF	NA, N	Federal Rule- not being adopted
515(13)	SW-846		FF	NA, N	Federal Rule- not being adopted

WAC 173-303- Amended Section (Proposed)	Federal Requirement (Abbreviated Rule Name)	Notes	Federal or State Requirement Codes	34.05.328 and 19.85 Compliance Criteria	Explanation of changes and analysis needed
515(3)	SW-846		FF	NA, N	Federal Rule- not being adopted
515(4)	SW-846		FF	NA, N	Federal Rule- not being adopted
515(8)	SW-846		FF	NA, N	Federal Rule- not being adopted
515(9)	SW-846		FF	NA, N	Federal Rule- not being adopted
640(1)(b)	SW-846		FF	NA, N	Federal Rule- not being adopted
645(4)(a)&(b)	SW-846		FF	NA, N	Federal Rule- not being adopted
645(9)(g)(ii),(iii),&(iv)(A)	SW-846		FF	NA, N	Federal Rule- not being adopted
645(10)(g)	SW-846		FF	NA, N	Federal Rule- not being adopted
64610(4)	SW-846		FF	NA, N	Federal Rule- not being adopted
690(2)	SW-846		FF	NA, N	Federal Rule- not being adopted
690(3)	SW-846		FF	NA, N	Federal Rule- not being adopted
806(4)(f)(iii)(A)(III)	SW-846		FF	NA, N, K	Federal Rule- not being adopted
806(4)(xx)(D)(II)	SW-846		FF	NA, N, K	Federal Rule- not being adopted
807(2)(a)(iii)	SW-846		FF	NA, N	Federal Rule- not being adopted
910(2)(d)	SW-846		FF	NA, N	Federal Rule- not being adopted
040 Definitions	UW Mercury		FF	NA	Federal Requirement- exempt We already had this category of universal waste in our rules, but we need to make changes because EPA finalized their rule after we adopted our version in 2005 that was based on EPA's proposed rule.
Mercury-containing equipment	UW Mercury		FF	NA	Federal Requirement- exempt
Universal waste	UW Mercury		FF	NA	Federal Requirement- exempt
Ampule	UW Mercury		FF	NA	Federal Requirement- exempt
Large quantity handler	UW Mercury		FF	NA	Federal Requirement- exempt
Small quantity handler	UW Mercury		FF	NA	Federal Requirement- exempt
077(2)	UW Mercury		FF	NA	Federal Requirement- exempt
600(3)(o)(ii)	UW Mercury		FF	NA	Federal Requirement- exempt
400(2)(c)(xi)(B)	UW Mercury		FF	NA	Federal Requirement- exempt
140(2)(a)	UW Mercury		FF	NA	Federal Requirement- exempt

WAC 173-303- Amended Section (Proposed)	Federal Requirement (Abbreviated Rule Name)	Notes	Federal or State Requirement Codes	34.05.328 and 19.85 Compliance Criteria	Explanation of changes and analysis needed
573(4)(d) deleted	UW Mercury		FF	NA	Federal Requirement- exempt
573(1)(a)(ii)	UW Mercury		FF	NA	Federal Requirement- exempt
573(3)(b)(ii)&(iii)	UW Mercury		FF	NA	Federal Requirement- exempt
573(9)(b)(i)-(iv)	UW Mercury		FF	NA	Federal Requirement- exempt
573(10)(b) (i)&(ii)	UW Mercury		FF	NA	Federal Requirement- exempt
573(19)(b)(iv)&(v)	UW Mercury		FF	NA	Federal Requirement- exempt
573(20)(b)(i)-(iv)	UW Mercury		FF	NA	Federal Requirement- exempt
573(21)(b)(i)&(ii)	UW Mercury		FF	NA	Federal Requirement- exempt
800(7)(c)(iii)(B)	UW Mercury		FF	NA	Federal Requirement- exempt
110(3)(g)(viii)	NESHAPS		FF	NA	Federal Requirement- exempt
400(3)(a)	NESHAPS		FF	NA	Federal Requirement- exempt
510(1)(a)	NESHAPS		FF	NA	Federal Requirement- exempt
670(1)(b)(i)	NESHAPS		FF, FS	NA, K, E	Federal Requirement- some of these requirements could apply to facilities that manage state-only wastes, but the requirements themselves don't add costs.
670(1)(b)(v)	NESHAPS		FF, FS	NA, K	Federal Requirement
806(17)	NESHAPS		FF	NA	Federal Requirement- exempt
806(4) (j)(iv)(C)	NESHAPS		FF	NA	Federal Requirement- exempt
806(4) (k)(v)(C)	NESHAPS		FF	NA	Federal Requirement- exempt
806(4)(f)(v)	NESHAPS		FF	NA	Federal Requirement- exempt
807	NESHAPS		FF	NA	Federal Requirement- exempt
811	NESHAPS		FF, FS	NA, K	Federal Requirement
815(2)(b)(iii)	NESHAPS		FF, FS	NA, K	Federal Requirement
840	NESHAPS		FF	NA	Federal Requirement- exempt
840(4)(j)(i)	NESHAPS		FF	NA	Federal Requirement- exempt
840(4)(j)(ii)	NESHAPS		FF	NA	Federal Requirement- exempt
840(4)(j)(iii)	NESHAPS		FF	NA	Federal Requirement- exempt
840(4)(k)	NESHAPS		FF	NA	Federal Requirement- exempt
841	NESHAPS		FF	NA	Federal Requirement- exempt

WAC 173-303- Amended Section (Proposed)	Federal Requirement (Abbreviated Rule Name)	Notes	Federal or State Requirement Codes	34.05.328 and 19.85 Compliance Criteria	Explanation of changes and analysis needed
017(5)(b)(ii)(B)	Burden Reduction		FF, FS	NA, E	Federal Requirement
017(5)(b)(ii)(B) - (G)	Burden Reduction		FF, FS	NA, E	Federal Requirement
040 Definition	Burden Reduction				
Performance Track member facility	Burden Reduction		FF, FS	NA	Federal Requirement- new definition
140(2)(c)	Burden Reduction		FF	NA, N	Federal Rule- not being adopted
140(2)(d)	Burden Reduction		FF	NA, N	Federal Rule- not being adopted
140(2)(e)	Burden Reduction		FF	NA, N	Federal Rule- not being adopted
140(2)(f)	Burden Reduction		FF	NA, N	Federal Rule- not being adopted
140(4)(b)(i)	Burden Reduction		FF	NA, N	Federal Rule- not being adopted
140(4)(b)(v)	Burden Reduction		FF	NA, E	Federal Rule
350(2)	Burden Reduction		FF, FS	CS	Federal Rule
400(3)(c)(xiii)(B)	Burden Reduction		FF	NA, N	Federal Rule- not being adopted. Several sub-sub-sub sections are not listed because the only change being made to them was to move them so that all of these are in the same order they appear in the federal rules. So any 400(3)(c) citations that are struck out or underlined in the draft rules that are not listed here were moved/reordered.
400(3)(c)(ix)(B)	Burden Reduction		FF	NA, N	Federal Rule- not being adopted
400(3)(c)(ix)(C)	Burden Reduction		FF	NA, N	Federal Rule- not being adopted
400(3)(c)(ix)(D)	Burden Reduction		FF	NA, N	Federal Rule- not being adopted
400(3)(c)(ix)(E)	Burden Reduction		FF	NA, N	Federal Rule- not being adopted
400(3)(c)(ix)(G)	Burden Reduction		FF	NA, N	Federal Rule- not being adopted
400(3)(c)(ix)(H)&(I)	Burden Reduction		FF	NA, N	Federal Rule- not being adopted
400(3)(c)(ix)(J)	Burden Reduction		FF	NA, N	Federal Rule- not being adopted
400(3)(c)(ix)(K)	Burden Reduction		FF	NA, N	Federal Rule- not being adopted
400(3)(c)(ix)(L)	Burden Reduction		FF	NA, N	Federal Rule- not being adopted
400(3)(c)(ix)(L)	Burden Reduction		FF	NA, N	Federal Rule- not being adopted

WAC 173-303- Amended Section (Proposed)	Federal Requirement (Abbreviated Rule Name)	Notes	Federal or State Requirement Codes	34.05.328 and 19.85 Compliance Criteria	Explanation of changes and analysis needed
400(3)(c)(v)(A)	Burden Reduction		FF	NA, N	Federal Rule- not being adopted
400(3)(c)(v)(B)	Burden Reduction		FF	NA, N	Federal Rule- not being adopted
400(3)(c)(v)(D)	Burden Reduction		FF	NA, N	Federal Rule- not being adopted
400(3)(c)(v)(E)	Burden Reduction		FF	NA, N	Federal Rule- not being adopted
400(3)(c)(vi)(C)	Burden Reduction		FF	NA, N	Federal Rule- not being adopted
400(3)(c)(vi)(D)	Burden Reduction		FF	NA, N	Federal Rule- not being adopted
400(3)(c)(vi)(E)	Burden Reduction		FF	NA, N	Federal Rule- not being adopted
400(3)(c)(vii)(C)	Burden Reduction		FF	NA, N	Federal Rule- not being adopted
400(3)(c)(vii)(D)	Burden Reduction		FF	NA, N	Federal Rule- not being adopted
400(3)(c)(vii)(E)	Burden Reduction		FF	NA, N	Federal Rule- not being adopted
400(3)(c)(viii)(A)	Burden Reduction		FF	NA, N	Federal Rule- not being adopted
400(3)(c)(x)(A)	Burden Reduction		FF	NA, N	Federal Rule- not being adopted
400(3)(c)(xi)(A)	Burden Reduction		FF	NA, N	Federal Rule- not being adopted
400(3)(c)(xii)(A)	Burden Reduction		FF	NA, N	Federal Rule- not being adopted
400(3)(c)(xviii)(A)	Burden Reduction		FF	NA, N	Federal Rule- not being adopted
400(3)(c)(xviii)(B)	Burden Reduction		FF	NA, N	Federal Rule- not being adopted
400(3)(c)(xviii)(C)	Burden Reduction		FF	NA, N	Federal Rule- not being adopted
400(3)(c)(xviii)(D)	Burden Reduction		FF	NA, N	Federal Rule- not being adopted
400(3)(c)(xviii)(E)	Burden Reduction		FF	NA, N	Federal Rule- not being adopted
400(3)(c)(xviii)(F)	Burden Reduction		FF	NA, N	Federal Rule- not being adopted
400(3)(c)(xx)(A)&(B)	Burden Reduction		FF	NA, N	Federal Rule- not being adopted
400(3)(c)(xx)(C)	Burden Reduction		FF	NA, N	Federal Rule- not being adopted
400(3)(c)(xx)(C)	Burden Reduction		FF	NA, N	Federal Rule- not being adopted
400(3)(c)(xxii)(A)	Burden Reduction		FF	NA, N	Federal Rule- not being adopted
400(3)(c)(xxii)(B)	Burden Reduction		FF	NA, N	Federal Rule- not being adopted
640(4)(a)(ii),(iii),&(iv)	Burden Reduction		FF, FS	NA, E	Federal Requirement
640(4)(a)(ii)	Burden Reduction		FF, FS	NA, E	Federal Requirement
640(4)(a)(i)	Burden Reduction		FF, FS	NA, E	Federal Requirement
640(4)(i)(ii)	Burden Reduction		FF, FS	NA, N	Federal Rule- not being adopted
645(9)(d)	Burden Reduction		FF, FS	CS	Federal Requirement
645(9)(g)(ii)	Burden Reduction		FF, FS	CS	Federal Requirement
645(9)(g)(iii)	Burden Reduction		FF, FS	CS	Federal Requirement

WAC 173-303- Amended Section (Proposed)	Federal Requirement (Abbreviated Rule Name)	Notes	Federal or State Requirement Codes	34.05.328 and 19.85 Compliance Criteria	Explanation of changes and analysis needed
645(10)(f)	Burden Reduction		FF, FS	CS	Federal Requirement
645(10)(g)	Burden Reduction		FF, FS	CS	Federal Requirement
660(2)(j)	Burden Reduction		FF, FS	NA, E	Federal Requirement
670(4)(a)(ii)	Burden Reduction		FF	NA	Federal Requirement- exempt
695	Burden Reduction		FF	NA	Federal Requirement- exempt
040 Definitions	CFR Corrections			NA, E	Federal Requirement
Incompatible Waste	CFR Corrections		FF, FS	NA, E	Federal Requirement
Personnel or facility personnel	CFR Corrections		FF, FS	NA, E	Federal Requirement
071(3)(aa)(ii)	CFR Corrections		FF	NA, E	Federal Requirement- examples added
071(3)(g)(i)	CFR Corrections		FF	NA, E	Federal Requirement
082(4)	CFR Corrections		FF	NA, E	Federal Requirement
140(4)(b)(v)(B)	CFR Corrections		FF, FS	NA, E	Federal Requirement
140(2)(a)	CFR Corrections		FF	NA, E	Federal Requirement
200 (1)(b) (i) -(iv)	CFR Corrections		FF, FS	NA, E	Federal Requirement
300(5)(h)(iii)(B)	CFR Corrections		FF, FS	NA, E	Federal Requirement
310(2)(b)	CFR Corrections		FF, FS	NA, E	Federal Requirement
380(2)(c)	CFR Corrections		FF	NA, E	Federal Requirement
400(2)(c)(ii)	CFR Corrections		FF, FS	NA, K	Federal Requirement
645(10)(h)	CFR Corrections		FF, FS	NA, E	Federal Requirement
645(9)(g)(iv)(A)	CFR Corrections		FF	NA, E	Federal Requirement
640(4) (e)(ii)(E)(II)	CFR Corrections		FF	NA, E	Federal Requirement
645(8)(a)(i)	CFR Corrections		FF, FS	NA, E	Federal Requirement
645(8)(a)(i)(A)	CFR Corrections		FF, FS	NA, E	Federal Requirement
655(12)	CFR Corrections		FF	NA, E	Federal Requirement
650(2)(j)(i)(B)	CFR Corrections		FF, FS	NA, E	Federal Requirement
650(2)(j)(iii)(B)	CFR Corrections		FF, FS	NA, E	Federal Requirement
040 definition for Underground source of drinking water(650(2)(l)(ii)(B))	CFR Corrections		FF, FS	NA, E	Federal Requirement
665(11)	CFR Corrections		FF, FS	NA, E	Federal Requirement

WAC 173-303- Amended Section (Proposed)	Federal Requirement (Abbreviated Rule Name)	Notes	Federal or State Requirement Codes	34.05.328 and 19.85 Compliance Criteria	Explanation of changes and analysis needed
665(8)(a)	CFR Corrections		FF, FS	NA, E	Federal Requirement
665(8)(b)	CFR Corrections		FF, FS	NA, E	Federal Requirement
665(2)(k)(ii)(B)	CFR Corrections		FF, FS	NA, E	Federal Requirement
675(4)(a)(i)	CFR Corrections		FF, FS	NA, E	Federal Requirement-changed to state citation
675(4)(a)(iv)(A)	CFR Corrections		FF, FS	NA, E	Federal Requirement
675(4)(b)	CFR Corrections		FF, FS	NA, E	Federal Requirement
675(4)(m)(ii) & (iii)	CFR Corrections		FF, FS	NA, E	Federal Requirement
690(1)(c)	CFR Corrections		FF	NA, E	Federal Requirement
692(1)(c)	CFR Corrections		FF	NA, E	Federal Requirement
806(12)	CFR Corrections		FF, FS	Q,	Federal Requirement- this subsection was missing from our rules. It had been in an earlier version but was deleted.
806(4)(g)(viii)(B)	CFR Corrections		FF	NA	Federal Requirement- (A), - (D) all had to be added
830(3)(c)	CFR Corrections		FF, FS	NA, E	Federal Requirement
830 Appendix I F.2.	CFR Corrections		FF, FS	NA, E	Federal Requirement
830 Appendix I C.4.	CFR Corrections		FF, FS	NA, E	Federal Requirement
830 Appendix I C.6.	CFR Corrections		FF, FS	NA, E	Federal Requirement
830 Appendix I H.6.	CFR Corrections		FF, FS	NA, E	Federal Requirement
830 Appendix I C.7.	CFR Corrections		FF, FS	NA, E	Federal Requirement
830 Appendix I C.7.	CFR Corrections		FF, FS	NA, E	Federal Requirement
830 Appendix I C.8.	CFR Corrections		FF, FS	NA, E	Federal Requirement
9903 P045	CFR Corrections		FF	NA, E	Federal Requirement
9903 P194	CFR Corrections		FF	NA, E	Federal Requirement
9903 Comment expanded	CFR Corrections		FF	NA, K	Federal Requirement
9903 Numerical list added	CFR Corrections		FF	NA	Federal Requirement
9903 U227 Added	CFR Corrections		FF	NA	Federal Requirement
9904 Footnote Added to "F" waste	CFR Corrections		FF	NA, E	Federal Requirement
9904 K107	CFR Corrections		FF	NA, E	Federal Requirement

WAC 173-303- Amended Section (Proposed)	Change proposed	Notes	Federal or State Requirement Codes	34.05.328 and 19.85 Compliance Criteria	Explanation of changes and analysis needed
<b>STATE INITIATED RULE AMENDMENT, CORRECTION, CLARIFICATION, or NEEDED FOR CONSISTENCY WITH FEDERAL RULES</b>					
30	Add new acronyms (PODC, DRE, APTI, MACT, TEQ, CAMU, TU)		SS, SF	NA, K	Improve clarity of rule.
40	Closure- update to reflect closure guidance		SS, SF	NA, K, Z	Clarification that closure is required by others besides TSDs.
40	Compliance Procedure- remove the dates		SS, SF	NA, E	Updated by removing only the years that were cited (rather than including all years), plus added the name of the second chapter that was cited only by number and not title.
40	Inhalation LC <sub>50</sub> definition added		SS	NA, Z	Definition moved from section 100.
40	Dermal LD <sub>50</sub> definition modified to Dermal Rabbit LD <sub>50</sub>		SS	NA, K	Modified for consistency with Toxic Category Table in WAC 173-303-100(5).
40	Oral LD <sub>50</sub> definition modified to Oral Rat LD <sub>50</sub>		SS	NA, K	Modified for consistency with Toxic Category Table in WAC 173-303-100(5).
40	Person		FF, FS	NA, Z	Updated to correlate to federal rule.
40	Staging Pile- Add "must be designated by the director" CL 175		FF	NA, Z	Updated to correlate to the federal requirement.
40	Surface Impoundment- Change language to reflect federal definition then submit SR1 for authorization		FF, FS	NA, Z	The word "dangerous" deleted for consistency with federal rule and authorization (SR1).
070(7)(c)	Clarify that counting exclusion applies to PBR		FF, FS	NA, K	Clarification since this has mistakenly been interpreted to apply to TBG units- reference added to 802(5).
070(8)(d)	Used oil burned for energy recovery		FF, FS	NA, #, E	Citations corrected.
071(3)(cc)(ii)	NAICS deletions- 487110, 722310, 425110		FF	NA, K	3 codes are deleted- the codes are for businesses that would not have the type of waste being excluded.
081(1), 081(1)(a), & 082(1)	Link to definition of commercial chemical product for clarity		FF	NA, K	To provide clarity to the regulated community on which waste codes to use.
090(5)(a)(i) and (6)(a)(i) & (iii)	ASTM updates		FF	NA, Z	Test method update.

WAC 173-303- Amended Section (Proposed)	Change proposed	Notes	Federal or State Requirement Codes	34.05.328 and 19.85 Compliance Criteria	Explanation of changes and analysis needed
100(2), (3), (5)(b)(i)	Toxicity data sources added		SS	CS	100(5)(b) There are two main reasons for including two additional data sources (ECOTOX and HSDB). They are: 1) RTECS has a major limitation in that it includes <u>no</u> data on aquatic toxicity. Ecology has run into several situations where generators have designated their waste using RTECS only to find the waste would have designated if fish toxicity had been used. ECOTOX has extensive aquatic toxicity (along with much of the same data as in RTECS). HSDB has both types of toxicity although perhaps not in as much detail. HSDB has a lot of other information which may be of use such as PBT status. 2) Both ECOTOX and HSDB are free. Allowing the use of these other sources means that generators don't have to pay hundreds of dollars a year for access to RTECS and can access both over the Internet.
100(5)(c)(i)&(ii)	Delete reference to category D and category range		SS	E	Unnecessary phrase- a remnant of earlier requirements.
104(5) & 180(5)	Delete lab pack codes- conflict with new manifest rule		SS, SF	NA, Z	Lab pack codes are no longer allowed on manifests and should not be used.
110(2)(a), (2)(a)(vi), (2)(b), (3)(a), (3)(e), (3)(g), &(3)(h)	ASTM updates, corrections, & clarifications		FF, FS, SS, SF	NA, Z	110(2) Reference to the AC&D liquid sampler was removed because: The type of samplers that can be used to sample waste streams was expanded to include any device in the ASTM method <u>as long as the method is appropriate to the waste type</u> . The AC& D sampler is one of the devices allowed in the ASTM method so it was no longer necessary to call out that specific device and that specific company.

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110(3)(b)	Biological Test Methods Update		SS	CS	Eliminated the need for generators submitting waste for bioassay to do a % solid determination. Typically a % solid determination wouldn't cost much (probably less than \$25 per sample) but it means the generators don't have to purchase or maintain equipment, SOPs for the procedure, train staff, etc. & could probably reduce staff slightly.
110(3)(g)(x)	Duplicate deleted [see (vii)] CL 154 & 158		FF	NA, E	
110(5)	Clarify requirement to submit petition for alternate test method		FF, FS	NA, K, Z	"may" was changed to "must", the word "testing" was removed, and a citation to section 110 test methods was added to clarify that anyone interested in an alternate test methods must use the petition process.
120(4)(c)	Correct second (c)(vii) to (c)(vix)		FF, FS	NA, E	Citation corrected.
140(4)(b)(iii)	Correct test method references		FF, FS	NA, E	
140(4)(b)(iv)(B)	Updated for ASTM		FF, FS	NA, E	Test method update.
145(2)(b)	Add local air authorities in eastern Washington		SS, SF	NA, E	This change reflects the presence of local air authorities in eastern Washington.
200(1)(b)(ii) & (iii)	See 640 and 675 for "stress of installation"		FF, FS	NA, E	This phrase was deleted at 200 and added at 640 & 675.
200(4)(a)(iv)(A)(II)	See 640 and 675 for "stress of installation"		FF, FS	NA, E	This phrase was deleted at 200 and added at 640 & 675.
200(1)(b)(iv)	Correct the references		FF, FS	NA, E	Existing references at (B) are to state citations for closure & financial assurance. However, since generators are following the federal rules that have been IBR, a sentence is added to substitute the state citations for the federal citations. The word "shall" was changed to "must".
200(2)(a)	Satellite Accumulation		FF, FS	NA, Z	Removed "per waste stream" for federal consistency and authorization by EPA (12).

WAC 173-303- Amended Section (Proposed)	Change proposed	Notes	Federal or State Requirement Codes	34.05.328 and 19.85 Compliance Criteria	Explanation of changes and analysis needed
270(3)	49 CFR 171.16 reference Reworded at 171.16(b) [1] Submit a written Hazardous Materials Incident Report to the Information Systems Manager, PHH-63, Pipeline and Hazardous Materials Safety Administration, Department of Transportation, Washington, DC 20590-0001, or an electronic Hazardous Material Incident Report to the Information System Manager, DHM-63, Research and Special Programs Administration, Department of Transportation, Washington, DC 20590-0001 at <a href="http://hazmat.dot.gov">http://hazmat.dot.gov</a> ;		FF, FS	NA, Z	Updated for consistency with federal rule.
281(4)&(5)	Citations corrected from 840 to 830		SS, SF	NA, E	Citations corrected.
282(2)(b)(v)	Exempts recycling facilities from siting criteria		SS, SF	CS-	Revised which recycling facilities are exempt from siting criteria.
282(3)(p)	Clarification		SS, SF	NA, K	Clarifies what is meant by a 25% expansion.
282(4)(a)	Delete obsolete language		SS, SF	NA, E	Obsolete language deleted.
310(1)	Reworded		FF, FS	NA, Z	Reworded to be consistent with federal rule.
380(1)(f)	clarified		FF, FS	NA, K, Z	Noted that the requirements are incorporated by reference.
400(2)(c)(xiv)	Federal language added		FF, FS	NA, Z	For equivalence with federal rule. Consistent with the exclusions for final facilities, industrial waste reference is not included.
400(2)(c)(xv)	Federal language added		FF, FS	NA, Z	For equivalence with federal rule.
400(3)(c)(iv) [moved from (3)(c)(x)]	Reference regarding Subpart B modified as it applies only to 265.19		FF, FS	NA, Z, E	This was moved and modified to clarify that not all of subpart B needs to be referenced because interim status facilities are required to comply with WAC 173-303-290 for facility standards (see -400(3)(a)(i).
505(1)(b)(iv)	Delete "v"		FF, FS	NA, E	Citation corrected.

WAC 173-303- Amended Section (Proposed)	Change proposed	Notes	Federal or State Requirement Codes	34.05.328 and 19.85 Compliance Criteria	Explanation of changes and analysis needed
506(3)(vii)	CFC delete exception from closure plan, etc		SS, SF	Q, Z It was an oversight during the previous rulemaking not to require CFC recyclers from the requirements	The exemption from closure and financial responsibility requirements is being deleted. An oversight prevented this deletion from taking place in 2004 as part of the Hazardous Waste Facility Initiative that required closure and financial responsibility for used oil and recycling facilities.
510(1)(b)(i)(B)	Correct internal citation		SS	NA, E	100(6)(a)&(b) corrected.
522(4)	Correct reference from 24 hour recycling to immediate recycling		SS, SF	NA, E, Z	Reference corrected for consistency with DW recycling requirements.
610(3)(a)(ix), (3)(b)(ii)(D), (8)(b)(iv), and (8)(d)(ii)(D)	Change (1)(d) to (1)(e)		FF, FS	NA, E	Citation corrected.
610(6) & (11)	Add "qualified" to the certification requirement		FF, FS	NA, E, Z	Consistency with federal rule & other required certifications.
610(12)(e)	Change "resource reclamation units" to 'recycling units"		SS, SF	NA, E	Terminology correction for consistency.
620(1)(e)(ii)	Change "resource reclamation units" to 'recycling units"		SS, SF	NA, E	Terminology correction for consistency.
620(3)(a)(v)	Added clarification that closure cost estimate can not be reduced for net present value, etc.			NA, K	Clarification.
620(3)(c)(iv)	Add corporate guarantors (see 620(6)(a)(vi))		FF, FS	NA, K	This clarifies that corporate guarantors are also subject to the \$20M.
620(4)(c), 620(4)(e)(i) & 620(4)(f)	New financial instrument- "assigned security deposit" for used oil processors and recyclers			CS	New option for financial assurance- applies to used oil processors and recyclers only (not TSDs).
620(4)(d)(i)	Add "used oil" to clarify that trust funds can be used by UO processors and recyclers		SS, SF	NA	Clarification that used oil processors may use partially funded trust funds.

WAC 173-303- Amended Section (Proposed)	Change proposed	Notes	Federal or State Requirement Codes	34.05.328 and 19.85 Compliance Criteria	Explanation of changes and analysis needed
620(4)(g)	Clarification that financial assurance must not be less than the cost estimate and that financial assurance may not be reduced for net present value, etc.			NA, K	Clarification.
620(5)(c), 620(5)(d), & 620(7)	Add hyphen to post-closure			NA, E	Edit.
640(4)(c)(i) & 675(4)(a)(v)	Add "stress of installation" (moved from 200) Deleted now that it has been added to 640 and 675		FF, FS	NA, E, Z	This federal requirement is being moved to tanks and drip pads sections (640 & 675), and deleted from 200(1)(b) & (4)(a). Reference was added to section 200 during the previous rulemaking since language did not already exist in sections 640 and 675. It was too late in the previous rulemaking to add it to 640 and so it was temporarily added to 200.
64660(3)(d)(iv)(F)	Modify "SW846" to "SW-846"		SS, SF	NA, Z, E	For consistency.
665(13)	Need an analog to 264.314 (used to be at 665(9))		FF, FS	NA, Z	Addition required by EPA for equivalence with the federal rules. This requirement already exists in DW rules in a separate section.
806(2)(a)	Correct citation from 803(4) to 803(3)		FF, FS	NA, E	Citation corrected.
806(4)(h)(iii)	Add federal language		FF, FS	NA, Z- this doesn't change a requirement. It is a statement.	For federal equivalence.
806(8)	Updated for federal consistency		FF, FS	NA, E, Z	Language updated for consistency with federal rule and authorization (17S).
810(11)(c)	Duplicate provision deleted		FF, FS	NA, E	Provision exists at 810(11)(e).
810(16)	Citation corrected		FF, FS	NA, E	Citation corrected.
830(3)(c)	Add federal language		FF, FS	NA, Z, K- this is more of a statement than a requirement	For federal equivalence.
830(4)(b)(vii)	Correct reference (b)(6)(i) – (ii)		FF, FS	NA, E	Citation corrected.

<b>WAC 173-303- Amended Section (Proposed)</b>	<b>Change proposed</b>	<b>Notes</b>	<b>Federal or State Requirement Codes</b>	<b>34.05.328 and 19.85 Compliance Criteria</b>	<b>Explanation of changes and analysis needed</b>
902	Citizen Proponent Negotiation		SS, SF	NA, Z	This change coincides with changes to 282(2)(b).
910(3)	Petition to exempt waste		FF, FS	NA, E, K	A note was added to clarify that a generator must also petition EPA to delist their waste. Ecology does not have authority to delist federal wastes and must wait for EPA to grant a petition before the state can also grant a petition to exempt a federally listed waste.
Chemical Testing Methods					Revised.
Biological Testing Methods	Revised The citation is 110(3)(b); however there is not a rule amendment since no rule change is necessary.			CS	For the Biological Testing Method guidance, we are eliminating the need for generators submitting waste for bioassay to do a % solid determination. Typically a % solid determination wouldn't cost much (probably less than \$25 per sample) but it means the generators don't have to purchase/maintain equipment, SOPs for the procedure, train staff, etc. and could probably reduce staff slightly as well.

**Used Oil** Hazardous Waste Management System; Identification and Listing of Hazardous Waste; Recycled Used Oil Management Standards, July 30, 2003; 68 FR 44659

**Performance Track** National Environmental Performance Track Program; Corrections, October 25, 2004; 69 FR 62217

**NESHAPS** National Emission Standards for Hazardous Air Pollutants: Surface Coating of Automobiles and Light-Duty Trucks, April 26, 2004; 69 FR 22601

**Dyes and Pigments** Hazardous Waste Management System; Identification and Listing of Hazardous Waste; Dyes and/or Pigments Production Wastes; Land Disposal Restrictions for Newly Identified Wastes; CERCLA Hazardous Substance Designation and Reportable Quantities; Designation of Five Chemicals as Appendix VIII Constituents; Addition of Four Chemicals to the Treatment Standards of F039 and the Universal Treatment Standards February 24, 2005, 70 FR 9137

**Dyes and Pigments** Hazardous Waste Management System; Identification and Listing of Hazardous Waste; Dyes and/or Pigments Production Wastes; Land Disposal Restrictions for Newly Identified Wastes; CERCLA Hazardous Substance Designation and Reportable Quantities; Designation of Five Chemicals as Appendix VIII Constituents; Addition of Four Chemicals to the Treatment Standards of F039 and the Universal Treatment Standards; Correction  
June 16, 2005 70 FR 35032

**Manifest Rule** Hazardous Waste Management System; Modification of the Hazardous Waste Manifest System  
March 4, 2005 70 FR 10775

**Manifest Rule** Hazardous Waste Management System; Modification of the Hazardous Waste Manifest System; Correction  
June 16, 2005 70 FR 35034

**SW-846 Test Methods** Waste Management System; Testing and Monitoring Activities; Final Rule: Methods Innovation Rule and SW-846 Final Update IIIB  
June 14, 2005 70 FR 34537

**SW-846 Test Methods** Waste Management System; Testing and Monitoring Activities; Final Rule: Methods Innovation Rule and SW-846 Final Update IIIB  
August 1, 2005 70 FR 146

**Universal Waste Mercury Equipment** Hazardous Waste Management System; Modification of the Hazardous Waste Program; Mercury Containing Equipment  
August 5, 2005 70 FR 45507

**NESHAPS** National Emission Standards for Hazardous Air Pollutants:  
Final Standards for Hazardous Air Pollutants for Hazardous Waste Combustors (Phase I Final Replacement Standards and Phase II)  
October 12, 2005 70 FR 59402

**Burden Reduction** Resource Conservation and Recovery Act Burden Reduction Initiative  
April 4, 2006 70 FR 16861

**CFR Corrections** Hazardous Waste and Used Oil; Corrections to Errors in the Code of Federal Regulations  
July 14, 2006 70 FR 40253



### CFC Financial Assurance Calculations

The following are calculations for the requirement for chlorofluorocarbon (CFC) recycling facilities to have financial assurance. The firm's costs for complying with the proposed new rule could range from \$0 to approximately \$1700 per year. These figures are calculated as follows:

1. Current regulations already require financial assurance CFC and HCFC recycling. Due to a small oversight, one related rule was not properly amended during the 2004 rulemaking. Because the error was Ecology's, we decided not to pursue the financial assurance requirement for these recyclers at that time. However, technically these firms should already have financial assurance and this rule change would not add any additional cost for them.
2. Assuming a facility does not currently have financial assurance, they will need to get it. There are a number of options available to them, each with varying implementation costs.
  - a. Large, financially stable companies may qualify to use a self-insured option, which does not cost them anything out of pocket. (This option is known as the "financial test.")
  - b. At the other end of the spectrum, a facility could choose an option that allows them to pre-pay these expenses by creating a trust fund or purchasing a Certificate of Deposit (CD). While this is very expensive up-front, there are fewer ongoing costs. If the facility chooses the CD option, there should be no ongoing cost at all. A trust will have annual trustee fees of up to 4percent, but potentially has a much higher rate of return. (Any "profit" -- funds remaining after closure is finished -- would be returned to the firm.)
  - c. Most facilities choose to use a third-party mechanism. These mechanisms allow a facility to obtain a guarantee from a thirdparty that the funds will be available when needed. These mechanisms usually cost a facility between 1-4percent of the obligation each year. The fees are based on which mechanism is selected, the facility's creditworthiness, and other site-specific factors.
3. The potential financial liability to the state is about \$17,500 for each facility, but could be as high as about \$43,000 per facility. These are the amounts that need to be guaranteed.

4. The worst-case scenario is a facility that needs to guarantee \$43,000 and has to pay 4 percent per year to do so. This cost will be about \$1,720 a year.
5. The most likely scenario is that a facility needs to guarantee \$17,500 and has to pay 2.5 percent per year to do so. This cost will be about \$438 a year.
6. The best-case scenario is a facility qualifies to use the "financial test" option for self-insurance. This will cost nothing, regardless of the amount of liability being guaranteed. But it is unlikely that any recycler will qualify to use this option.

### Percent Solids Determination Survey

Below is the survey sent to eight laboratories that perform the "percent solids determination" test.

#### Survey Content

Ecology is considering eliminating the need for generators submitting waste for bioassay to do a percentage solid determination. Currently, Ecology's toxicity bioassay method requires each sample to undergo a percent solids determination. This value is reported in the final data summary. The original intent was to adjust the sample amount used in the test based on water content. Because of technical problems the percentage moisture is never used in the method and the method cannot be defensively changed to include it; therefore Ecology is proposing to eliminate this requirement.

1. How much does a drying oven cost?
2. What are the yearly costs to maintain it?
3. Is the drying oven used for other tests?
4. If so, what percentage of its use is related to conducting percent solid determinations for this specific method?
5. What do you charge for a fish bioassay?
6. How much of this charge is related to conducting the percentage solid determination?
7. How many employees does it take to do one test?
8. How much time a week would an employee save not having to run this test?
9. How many percentage solid determinations do you do a week?
10. Are there any other cost savings you anticipate with the elimination of this requirement?