

DEPARTMENT OF  
**ECOLOGY**  
State of Washington

As required by  
the Washington State Administrative Procedures Act  
Chapter 34.05 RCW

CONCISE EXPLANATORY STATEMENT  
AND  
RESPONSIVENESS SUMMARY  
FOR THE ADOPTION OF  
Chapter 173-303 WAC, *The Dangerous Waste Regulations*

06/30/2009  
Publication: 09-04-013



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CHAPTER 173-303 WAC, The Dangerous Waste Regulations

Prepared by:  
Rob Rieck  
Washington State Department of Ecology  
Hazardous Waste and Toxics Reduction Program

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# Introduction

The Department of Ecology (Ecology) is authorized by the State Hazardous Waste Management Act (Chapter 70.105 RCW) to adopt rules regulating the management of hazardous waste. The purpose of the Hazardous Waste Management Act is to provide a comprehensive statewide framework for the regulation, control, and management of hazardous waste. Ecology's actions under this authority prevent land, air, and water pollution and conserve the natural, economic, and energy resources of the state.

The Hazardous Waste Management Act also gives Ecology the authority to carry out the federal hazardous waste program in Washington. Further authority to carry out the Federal Resource Conservation and Recovery Act (RCRA) amendments is contained in the Model Toxics Control Act at RCW 70.105D(3)(d). Ecology is authorized under Federal regulations (40 CFR Part 271) by the U.S. Environmental Protection Agency (EPA) to administer and enforce the Federal RCRA program in Washington.

The *Dangerous Waste Regulations*, Chapter 173-303 WAC, implement the Hazardous Waste Management Act. These regulations establish requirements for generators, transporters, and facilities that manage dangerous waste in Washington. Ecology amends the *Dangerous Waste Regulations* every two to four years to update the regulations. These updates help to improve waste management in Washington for all stakeholders affected by the regulation including the public, businesses, state governmental agencies, and officials at Ecology and EPA.

The rule amendments adopted during the current rulemaking incorporate several federal hazardous waste regulations. These include updates to manifest requirements, merging universal waste rules for mercury-containing equipment and mercury thermostats, and incorporating some of EPA's Burden Reduction Initiative rules. Some state-only requirements have also been updated, mainly technical and editorial corrections and clarifications. Ecology publication number 97-407 *Chemical Testing Methods for Designating Dangerous Wastes* has been updated as well with changes to some permit pre-application requirements.

These amendments improve hazardous waste management while continuing to provide protection to human health and the environment.

## Summary of public involvement actions

At the beginning of the official rulemaking process, Ecology filed a pre-proposal statement of inquiry (CR101) in the Washington State Register (WSR) on October 19, 2007. Other public involvement activities included:

- A letter was sent to Washington tribes inviting their participation in the rulemaking.
- The draft rule language was circulated to the public and all stakeholders to announce upcoming rulemaking and invite preliminary public comments in March of 2008.

- A Rule Proposal Notice (Publication No. 08-04-028) was sent to interested parties, using both the Dangerous Waste Regulation list serve and Ecology's Rules list serve, clarifying the proposed rule amendments and announcing the public hearing schedule. The Notice also explained several methods for commenting on rule amendments and described Ecology's website for further information.
- A News Release was distributed to statewide media, inviting businesses and residents to comment on the proposed changes.
- The proposed rule and other related information were made available on Ecology's Rules web page as well as by paper copy. The comment period ended on March 5, 2009.
- Following formal proposal in the State Register, a simultaneous videoconference public hearing was held on the proposed amendments in Bellevue, Olympia, Yakima, and Spokane on Tuesday, February 24, 2009. A total of 5 people attended. During the unofficial question and answer period, one person asked several questions about proposed rule changes. No one offered public testimony.

The Comments and Responses portion of this document contains the summarized comments submitted on the proposed amendments along with Ecology's responses. Appendix A lists all commenters linking them to specific comments by number. Appendix F has copies of all submitted comments.

### **Scheduled Adoption and Effective Dates**

The amendments to the *Dangerous Waste Regulations* are scheduled for adoption on June 30, 2009. The amendments will be effective on July 31, 2009.

# Differences Between Proposed and Final Rule

This portion of the responsiveness summary shows changes made to the rule language after it was proposed January 2009. These are the changes that will be adopted based on comments received on the proposed rule amendments, plus editorial corrections and clarifications. Rule language changes from the proposed rule to the final adopted rule are shown by using ~~strikeout~~ and underline.

## 1. WAC 173-303-040 "Closure" means:

- The requirements placed upon all recycling, used oil, and TSD facilities, plus some generators, and some transporters to ensure that all such facilities are closed in an acceptable manner (see also "post-closure"), and
- ~~The process of taking a dangerous waste management unit or a recycling unit~~ Once taken out of service, the ~~and properly cleaning up and~~ or decontaminating of a dangerous waste management unit or a recycling ~~the~~ unit and any areas affected by releases from the unit.

**Rationale for change:** The second bullet of the proposed definition of "closure" was modified to better define closure of a dangerous waste management unit or recycling unit. Closure is not the process of taking a unit out of service, as the second bullet had suggested. Closure is the process of cleaning or decontaminating a unit after that unit has received its known final volume of dangerous waste. The unit would be considered out of service after it was no longer being used for processing waste.

**2. WAC 173-303-110(3)(a) SW-846 Methods** (a) *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, EPA Publication, SW-846* (Third Edition (November 1986) as amended by Updates I (dated July 1992), II (dated September 1994), IIA (dated August 1993), IIB (dated January 1995), III (dated December 1996), and IIIA (dated April 1998), IIIB (dated July 2005), and ~~IVA and IVB~~ Final Update IV (dated ~~January~~ February 2008~~7~~), which is incorporated by reference. The Third Edition of SW-846 and its Updates (document number 955-001-00000-1) are available from the Superintendent of Documents. Update IIIA is available through EPA's Methods Information Communication Exchange (MICE) Service. MICE can be contacted by phone at (703) 821-4690. Update IIIA can also be obtained by contacting the U.S. Environmental Protection Agency, Office of Solid Waste (5307W), OSW Methods Team, 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Copies of the Third Edition and all of its updates are also available from the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, VA 22161, (703) 605-6000 or (800) 553-6847;

**Rationale for change:** Editorial correction for SW-846 updates.

**3. WAC 173-303-110(5) Testing Method Petition Process** (5) Equivalent testing methods. Any person ~~must~~ may request department approval for the use of an equivalent testing method by submitting a petition, prepared in accordance with WAC 173-303-910(2), to the department.



**Rationale for change:** In response to comments, the words testing is added back to the text to maintain consistency with section 910(2) Petitions and the introductory paragraph in section 110(1). Must is changed back to may to clarify that the petition process does not have to be followed in every instance where alternative test methods are used.

**4. WAC 173-303-140(2)(a) SW-846 Testing Methods** (a) Land disposal restrictions for wastes designated in accordance with WAC 173-303-070 (3)(a)(i), (ii), and (iii) are the restrictions set forth by the Environmental Protection Agency in 40 CFR Part 268 which are incorporated by reference into this regulation, as modified in (c) through (f) of this subsection, and the restrictions set forth in subsections (3) through (7) of this section. The words "regional administrator" (in 40 CFR) will mean the "department," except for 40 CFR Parts 268.5 and 268.6; 268 Subpart B; 268.42(b) and 268.44 (a) through (g). The authority for implementing these excluded CFR sections remains with the U.S. Environmental Protection Agency. The word "EPA" (in 40 CFR) means "Ecology" at 40 CFR 268.44(m). The exemption and exception provisions of subsections (3) through (7) of this section are not applicable to the federal land disposal restrictions. Where the federal regulations that have been incorporated by reference refer to 40 CFR 260.11, data provided under this section must instead meet the requirements of WAC 173-303-110(3)(a).

**Rationale for change:** The last sentence is being modified to clarify that references to analytical methods in addition to those available in SW-846 are included.

**5. WAC 173-303-300(5)(f) General Waste Analysis(f)** Where applicable, the methods for meeting the additional waste analysis requirements for specific waste management methods as specified in WAC 173-303-400(3) which incorporates by reference the regulations in 40 CFR Part 265 Subparts F through R, 265.1034, 265.1063(d), 265.1084, 268.4(a) and 268.7 for interim status facilities and in WAC 173-303-140 (4)(b), 173-303-395(1), 173-303-630 through 173-303-670, and 40 CFR 264.1034, 264.1063(d), 264.1083, 268.4(a) and 268.7 for final status facilities. Note that data provided from laboratory analyses for WAC 173-303-400(3) which incorporates by reference 40 CFR Part 265 Subparts F through R, WAC 173-303-140(4)(b), 173-303-395(1), 173-303-630 through 173-303-670, 40 CFR 268.4(a) and 268.7 must meet the requirements of WAC 173-303-110(3);

**Rationale for change:** In response to comments, Ecology is changing the proposed WAC citation reference at WAC 173-303-300(5)(f) from subsection 110(3) to section 110. This change allows facilities to use alternative test methods for waste analysis plans. Also, the change removes restrictions on test method selection for hazardous waste air emissions. These changes will allow waste analysis plans approved in permits without limitation to analytical methods in SW-846.

**6. WAC 173-303-370(2)(b)** (b) Note any discrepancies as defined in subsection (45)(a) of this section((;)) on each copy of the manifest;

**Rationale for change:** Correction of citation error.

**7. WAC 173-303-380(1)(c) Facility Recordkeeping** (c) Records and results of waste analyses, waste determinations (as required by 40 CFR Parts 264 and 265, Subpart CC), and trial tests required by WAC 173-303-300, General waste analysis, and by 40 CFR sections 264.1034, 264.1063, 264.1083, 265.1034, 265.1063, 265.1084, 268.4(a), and 268.7. Note that data from laboratory analyses for 40 CFR 268.4(a) and 268.7 must meet the requirements of WAC 173-303-110(3)(a);

**Rationale for change:** The proposed rule is revised in response to comments. The proposed rule references WAC 173-303-110(3)(a); this revision references all of section 110 so that test methods are not restricted to SW-846 methods. Also, we limit the requirement to use only analytical methods listed in WAC 173-303-110 to specific regulatory citations. These changes will allow waste analysis plans approved in permits to use analytical methods not found in SW-846. The reference to Subpart CC is clarified by indicating it is located in 40 CFR Parts 264 and 265.

**8. WAC 173-303-380(1)(f) Facility Recordkeeping** (f) Monitoring, testing, or analytical data, and corrective action where required by 40 CFR Part 265 Subparts F through R and sections 265.1034 (c) through (f), 265.1035, 265.1063 (d) through (i), 265.1064, and 265.1083 through 265.1090 for interim status facilities (incorporated by reference at WAC 173-303-400 (3)(a)), and by WAC 173-303-630 through 173-303-695 and 40 CFR sections 264.1034 (c) through (f), 264.1035, 264.1063 (d) through (i), 264.1064, and 264.1082 through 264.1090 for final status facilities (incorporated by reference at WAC 173-303-690, 173-303-691, and 173-303-692). Note that data provided from laboratory analyses for WAC 173-303-400(3) which incorporates by reference 40 CFR Part 265 Subparts F through R, WAC 173-303-140(4) (b), 173-303-395(1), 173-303-630 through 173-303-680, 173-303-693 through 695, 40 CFR 268.4(a) and 268.7 must meet the requirements of WAC 173-303-110(3)(a);

**Rationale for change:** The proposed rule is revised in response to comments. The proposed rule references WAC 173-303-110(3)(a), this revision deletes subparagraph (3)(a) and references all of section 110, so that test methods are not restricted to SW-846 methods. Also, we limit the requirement for analytical methods to be in WAC 173-303-110 to specific regulatory requirements (such as analysis to support land disposal restrictions).

**9. WAC 173-303-380(2)(c) Manifest Record Keeping** The estimated or manifest-reported weight, or volume and density, where applicable, of the dangerous waste must be recorded, using one of the units of measure specified in Table 1, below; and

TABLE 1

Unit of Measure	Code <sup>1</sup>
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**Rationale for change:** Pounds, short tons and kilograms were deleted from Table 1, since these were redundant entries. The full table is not copied here in the interest of saving space.

**10. WAC 173-303-400(3)(c)(iii) Interim status facility standards** (iii) Where ~~the federal regulations that~~ 40 CFR 265 Subparts F through R, W, DD, and EE have been incorporated by reference refer to 40 CFR 260.11, data provided under this section must instead meet the requirements of WAC 173-303-110 (3)(a).

**Rationale for Change:** Ecology is revising proposed language to clarify which federal citations contain test methods that need to meet requirements of WAC 173-303-110.

**11. WAC 173-303-400(3)(c)(xiii)(A) Landfills** (xiii)"Subpart N - landfills." (A) An additional sentence reads: "An owner/operator must not landfill an organic/carbonaceous waste or an EHW, as defined by WAC 173-303-080 through 173-303-100, except at the EHW facility at Hanford" as allowed under WAC 173-303-700 or as allowed under WAC 173-303-140(4).

**Rationale for change:** The rule now includes a reference to section 700 to clarify disposal options at the EHW facility at Hanford and disposal allowances in section 140(4).

**12. WAC 173-303-400(3)(c) Interim Facility Standards** Section 265.115 is modified by changing "qualified Professional Engineer" to "independent qualified registered professional engineer."

**Rationale for change:** The word "qualified" is added to the description of an independent registered professional engineer in order to maintain consistency with the definition in section 040. This was an oversight in the proposed rules. This same change occurs 19 times throughout (400)(3)(c) in places where the state citation modifies the RCRA reference as indicated above. Not all of the changes are listed here in order to save space.

**13. WAC 173-303-515(8) Used Oil Standards** (8) Standards for used oil transporters and transfer facilities. For the purpose of managing materials under this section, 40 CFR Parts 279.40 through 279.47 are incorporated by reference except that the test methods at WAC 173-303-110 (3)(a) must be used.

**Rationale for change:** The reference to subparagraph (a) in the section 110 citation has been deleted so that used oil testing is not restricted solely to SW-846 methods. This will maintain consistency with the section 515(3) applicability statement which requires use of test methods in 110(3).

**14. WAC 173-303-515(9) Used Oil Standards** (9) Standards for used oil processors and rerefiners. For the purpose of managing materials under this section, 40 CFR Parts 279.50 through 279.59 are incorporated by reference except that the test methods at WAC 173-303-110 (3)(a) must be used.

**Rationale for change:** The change and rationale is the same as for citation number 13.

**15. WAC 173-303-515(10) Used Oil Standards** (10) Standards for used oil burners who burn off-specification. For the purpose of managing materials under this subsection, 40 CFR Parts 279.60 through 279.67 are incorporated by reference except that the test methods at WAC 173-303-110 (3)(a) must be used.

**Rationale for change:** The change and reasoning is the same as for citation number 13.

**16. WAC 173-303-515(13)(b) Used Oil Standards** (b) Where the federal regulations that have been incorporated by reference refer to 40 CFR 260.11, data provided under this section must instead meet the requirements of WAC 173-303-110 (3)(a).

**Rationale for change:** The change and reasoning is the same as for citation number 13.

**17. WAC 173-303-610(6) and (11) Certification of closure.** Within sixty days of completion of closure of each dangerous waste management unit (including tank systems and container storage areas), and within sixty days of the completion of final closure, the owner or operator must submit to the department by registered mail, a certification that the dangerous waste management unit or facility, as applicable, has been closed in accordance with the specifications in the approved closure plan. The certification must be signed by the owner or operator and by an independent qualified registered professional engineer.

**Rationale for change:** The addition of the word “qualified” will make the description of professional engineer consistent to the phrase defined in section -040.

**18. WAC 173-303-620(1)(e)** (e) Except as provided in (c) of this subsection, the requirements of subsections (3), (4), (8), (9) and (10) of this section; apply to owners and operators of off-site recycling facilities and processors/re-refiners of used oil, except the term "recycling unit" will replace the terms "dangerous waste management unit" or "regulated unit."

**Rationale for change:** Grammatical correction.

**19. WAC 173-303-645(9)(g)(iii)Ground Water Monitoring List** (iii) For any "Ground-Water Monitoring List" Appendix ((IX)) compounds found in the analysis pursuant to (g)(ii) of this subsection, the owner or operator may resample within one month or according to ~~at~~ an alternative site-specific schedule approved by the director and repeat the analysis for those compounds detected. If the results of the second analysis confirm the initial results, then these constituents will form the basis for compliance monitoring. If the owner or operator does not resample for the compounds ((found pursuant to)) in (g)(ii) of this subsection, the dangerous constituents found during this initial "Ground-Water Monitoring List" Appendix ((IX)) analysis will form the basis for compliance monitoring.

**Rationale for change:** Proposed text was revised to correct grammatical errors.

**20. WAC 173-303-690 Air emission standards for process vents** ~~(3) Where the federal regulations that have been incorporated by reference refer to 40 CFR 260.11, data provided under this section must instead meet the requirements of WAC 173-303-110(3)(a).~~

**Rationale for change:** This proposed citation is being deleted entirely. Ecology recognizes that testing performed for hazardous waste air emissions from process vents uses test methods that are not available in WAC 173-303-110.

**21. WAC 173-303-691 Air emission standards for equipment leaks** ~~(3) Where the federal regulations that have been incorporated by reference refer to 40 CFR 260.11, data provided under this section must instead meet the requirements of WAC 173-303-110(3)(a).~~

**Rationale for change:** This proposed citation is being deleted entirely. Ecology recognizes that testing performed for hazardous waste air emissions from equipment leaks uses test methods that are not available in WAC 173-303-110.

**22. WAC 173-303-695 Containment buildings.** The requirements for containment buildings at 40 CFR Part 264 Subpart DD are incorporated by reference. The words "regional administrator" will mean "department." The sentence at 40 CFR 264.1101(c)(42) is modified by changing "qualified Professional Engineer" to "independent qualified registered professional engineer".

**Rationale for change:** An oversight is corrected by adding the word "independent" to the engineer description. The 40 CFR reference is changed to the correct citation.

**23. WAC 173-303-806(8) Permit completeness** (8) Completeness. The department will not issue a final facility permit before receiving a complete application, except for permits by rule or emergency permits. An application for a permit is complete when the department receives an application form and any supplemental information which are completed to the department's satisfaction. The department may consider Aan application for a permit to be is-complete notwithstanding the failure of the owner or operator to submit the exposure information described in subsection (12) of this section. The department may deny a permit for the active life of a dangerous waste management facility or unit before receiving a complete application for a permit.

**Rationale for change:** This paragraph is being revised to clarify that facilities need to submit exposure information for a permit application. If the facility owner or operator does not submit the referenced exposure information, the department will evaluate the circumstances and may consider a permit to be complete even without the exposure information.

## Comments and Responses

This section includes all summarized comments that were submitted on the proposed rule amendments and Ecology's responses. Also included are comments and responses on *Chemical Test Methods for Designating Dangerous Waste*, Publication #97-4.

## Dangerous Waste Regulatory Amendments

### General

**Comment 1:** A commenter requested an extension to the public comment period.

**Response:** *The comment period was not extended. The reason for denial is given in the response to Comment 1 in the responses to comments on Chemical Test Methods.*

**Comment 2:** I have a concern regarding proper implementation of CERCLA 108(b) which requires that facilities, including generators, “establish and maintain evidence of financial responsibility consistent with the degree, and duration of risk associated with the production, transportation, treatment, storage, or disposal of hazardous substances.” 42 USC 9608 (b)(1). Earth Justice prevailed in a recent court decision requiring that this section of the federal statute, required to be adopted by the states, be implemented by the EPA.

**Comment 3:** Allow exclusion of leather products from WAC 173-303 which fail the Dangerous Waste thresholds for trivalent chromium and are not contaminated by the user.  
**Comment 4:** The new Federal Definition of Solid Waste should be incorporated and referenced in the Proposed Amendments to the Dangerous Waste Regulations during this revision. The new Federal Definition of Solid Waste excludes from regulation certain hazardous secondary materials which are reclaimed.

**Response to comments 2-4:** *The proposed dangerous waste rule amendments did not include any changes to regulations mentioned in these comments. This responsiveness summary is limited to proposed changes to the dangerous waste rules, so Ecology is not able to provide a response in this document.*

## **WAC 173-303-040 Definitions**

**Comment 5:** Several commenters state that the amended definition for closure is too broad and applies clean closure requirements to any dangerous waste management unit or recycling unit. Not all dangerous waste management units or recycling units are required to undergo clean closure requirements as outline in Ecology’s clean closure guidance (publication 94-111), especially those units allowed to undergo landfill closure. The commenter argues that closure is not “the process of taking a dangerous waste management unit out of service...” as proposed. Closure begins when a unit ceases accepting waste, and the only requirements are to manage inventory properly until they are removed and perform other duties prescribed in the regulation.

**Response:** *The commenter’s suggested rule language is focused on securing the unit to be closed, rather than removing the waste from the unit that is being closed and cleaning that unit or facility. Ecology does not accept the commenter’s proposed definition of “closure” because it limits responsibility for cleaning up the unit or facility. Ecology agrees to modify the second bullet in the proposed definition of “closure”. Ecology agrees with the commenter that closure of a unit or facility occurs after the unit or facility receives the known final volume of dangerous waste; not while the unit or facility is continuing to accept wastes. Closure is not the process of taking a unit out of service as the second bullet suggests. Closure is the process of cleaning and or decontaminating a unit or facility after that unit has received its known final volume of dangerous waste; hence, no longer in service.*

**Comment 6:** Ecology should re-consider adopting provisions for National Performance Track members. This will encourage voluntary efforts at improved environmental performance beyond compliance, and would be in line with Ecology’s policy of encouraging environmental management systems.

**Response:** *The commenter is referring to the federal Burden Reduction Initiative that reduces facility inspection frequencies at National Performance Track facilities. Ecology is not proposing to adopt this rule. Ecology believes that reducing inspection frequencies may increase threats to human health and the environment. In general, Ecology does not believe that regular inspections are an onerous and burdensome issue for facilities. Frequent inspections are a proactive way to address and prevent problems. In addition, EPA has discontinued Performance Track and is closing out the program. Previous participants will no longer be allowed to identify themselves as “members” and the burden reduction rule changes will no longer be applicable to any facilities. See also Comment 17.*

### **WAC 173-303-045**

**Comment 7:** Amending this section to change the referenced date of rules from “as they existed on July 1, 2003” to “as they existed on July 1, 2007” may inadvertently adopt rules issued under the RCRA Burden Reduction Initiative (BRI), specifically as pertain to record retention. Under current Washington State regulation records must be retained for a period of 5 years post-closure. The BRI reduces the record retention time under 40 CFR 264.73 and 265.73 to three years, and once adopted – or in this case referenced, since the BRI became effective in April 2006 – allows for the immediate destruction of records. Records which otherwise must be retained under current law. These records include waste analysis, certain monitoring, testing and analytical data, waste determinations, etc. collected over the entire operational period of the hazardous waste facility and which are needed to keep a facility accountable for the entire life of a hazardous waste, i.e., “cradle to grave”. To allow generators, TSDs or others to destroy any of these records (evidence) diminishes the legal rights of individuals who may have been harmed by hazardous substances released by these facilities, and undermines their right to legal remedy which may depend on access to these records. Please do not remove the requirements for record retention for any facility or any activity managed under the State Dangerous Waste regulations.

**Response:** *Ecology will not make any change to this section for the following reasons. We are only adopting a few provisions of the BRI, and are not adopting any changes regarding record retention. Washington Administrative Code (WAC) 173-303-380 **Facility Record Keeping** is analogous to 40 CFR 264.73 and 265.73, except that records must be maintained in the operating record files until closure of the facility. When the dangerous waste regulations at WAC 173-303-045 incorporate by reference updates to 40 CFR Part 260 through 280 and Part 124, it is only referring to those places in the state rules that reference any parts, subparts, or sections from EPA’s hazardous waste regulations. Since we are not referencing the BRI regulations on record retention, we are not incorporating them into our state rules. Quoting from Ecology comments to EPA on the proposed BRI rule, we say;*

*“With few exceptions, we believe that these records need to be kept until closure. In general, any information the facility would need to identify the source and identity of contamination at the site needs to be kept until closure. As the proposed rule states, monitoring and cleaning up groundwater is a multi-year or even multi-decade effort. In order to monitoring changes in*

groundwater monitoring parameters over time, facilities need to keep records on soil and groundwater investigations and monitoring results for the life of the facility.) Our experience at Hanford indicates that waste analysis information is valuable as long as the waste remains on-site potentially subject to subsequent management needs. Training records for employees that have left the facility's employment may not need to be kept for the life of the facility.”

## **WAC 173-303-100**

### **State Toxicity Criteria Databases**

**Comment 8:** The commenters request Ecology delete the proposed rule incorporating by reference the Ecotoxicology Database (ECOTOX) and the Hazardous Substances Data Bank (HSDB). They suggest that these databases do not meet Administrative Procedures Act requirements at RCW 34.05.365. First they do not qualify as “standards, codes or rules....”. Second, the proposed regulations do not “fully identify the incorporated matter”. It is not always possible to obtain copies of the original research showing what form of the waste was tested. Last, the complete toxicological studies included in these databases are not readily available to generators. The commenters don’t agree that incorporation by reference is necessary in order to utilize database information for waste designation.

**Response:** *Since 1994, Ecology adopted by reference NIOSH RTECS into the dangerous waste regulations to give generators a source for toxicity studies. Ecology views RTECS as a set of standards generators can use to evaluate whether their waste is a state toxic dangerous waste.*

*A standard is an accepted measure of comparison for quantitative or qualitative value; a criterion. Ecology views the NIOSH RTECS, ECOTOX and HSDB databases as standards. Therefore generators can use ecotoxicity data, for example, from database scientific studies and compare toxicity of given waste constituents to the regulatory toxic category table in the regulations.*

*Because of existing gaps in the NIOSH RTECS data base, the ECOTOX and HSDB data bases have been adopted by reference as additional standards to provide the generator with a larger knowledge base when making a waste determination.*

*Since ECOTOX and HSDB are available on the Internet for free, they meet the “reasonably available” requirement. If generators use information from Material Safety Data Sheets (MSDS) or information in journals etc., to acquire sufficient knowledge of their waste, they may still continue using these sources assuming all exposure pathways are represented, as the new regulations still contain the “reasonably available” language.*

*When performing book designation, the generator should use the most conservative toxicity values, unless they can prove through review of the original toxicity studies or research that the data is not applicable to their waste determination. Ecology acknowledges that the original toxicity studies may not be available in all cases. When the original studies are not available, then the generator needs to use the most conservative data available to them. Optionally a bioassay test can be performed on the waste and the results of this test replace the result from the book designation process.*



**Comment 9:** The use of ECOTOX and HSDB databases as resources for designation of constituent toxicity is inappropriate and should be deleted from the proposed amendments. Use of these databases could result in designating common items such as copper, carbon steel and aluminum cans as dangerous waste, because aquatic toxicity studies show that these materials can be toxic to fish and qualify as dangerous waste. Regulation of these metals, and perhaps others, as toxic constituents may result in the need to designate bulky, heterogeneous wastes such as construction debris that have traditionally not been considered to require it. Regulated generators of such materials would have to inspect loads of demolition debris to make sure they do not contain materials that would cause them to be regulated. Review of the source scientific studies may clarify the applicability of the study results to the form of the waste, except that the studies are not always readily available. Lack of resources for a technical review of this information may result in improper designation of waste. In the past Ecology has indicated that they would help identify usable toxicity information through guidance, rather than through regulation, in order to avoid exclusion of data sources. The proposed rule amendment reverses this policy without explanation.

**Response:** *Ecology does not intend to remove ECOTOX and HSDB as toxicity data bases. In the examples used in the comment, if a metal can be recycled, it is typically exempt from the state dangerous waste regulations or the generator can request a recycling determination from Ecology. If it can't be recycled because of the state-only toxicity concerns, there are still regulatory options available for dealing with it. The regulations allow, under certain circumstances, state-only waste to be sent to standard landfills as special waste under WAC 173-303-073. Therefore, disposal of these items would be minimally impacted by the addition of ECOTOX and HSDB.*

*The existing regulations state that the "toxic category for each constituent may be determined from available data, including the NIOSH RTECS and checking this data against the toxic category table, below." The table shows toxic categories of aquatic (fish), oral (rat), inhalation (rat) and dermal (rabbit). The regulations do not state that RTECS is the only data source that should or can be used. The regulations identify RTECS as an acceptable source, but also include the wording that "other sources reasonably available" should be consulted. Since RTECS does not contain any fish toxicity values, any generator only using RTECS to book designate waste would therefore have been incorrectly implementing the book designation process. Adding in ECOTOX and HSDB simply allows generators to evaluate all required exposure pathways when conducting a book designation.*

*If more waste is being designated as state-only toxic waste because of the addition of ECOTOX and HSDB, this will only be because generators are now correctly following the regulations instead of bypassing fish toxicity, not because of a change in the regulations. Ecology includes fish toxicity in its state-only requirements because of our mission to protect human health and the environment. The environment includes not only mammalian toxicity (rat and rabbit), but also aquatic toxicity represented by the fish toxicity values. If a waste is not toxic to mammals, but has an impact on aquatic species, it needs to be managed appropriately.*

### **WAC 173-303-100(2), (3) and (5)**

Comment 10: The commenters state that Ecology's analysis of costs and benefits from this rule adding two new toxicity databases overlooks significant new costs to the regulated community, while overstating savings. Ecology's Small Business Economic Impact Statement contains the same oversight. A further analysis should be undertaken to determine whether the proposed rule properly evaluates cost/benefits and whether it may disproportionately impact small business by causing them to become large quantity hazardous waste generators.

**Response:** *Because of the reasons given in the response to Comment 9 Ecology will not be conducting further analysis on the Cost Benefit Analysis or Small Business Economic Impact Statement. The above response to the addition of ECOTOX and HSDB explain why these data sources are being added. However, Ecology realizes that some generators will continue to subscribe to RTECS and therefore it will be moved to the qualitative savings section as we are not able to determine how many generators will continue to subscribe.*

### **WAC 173-303-104**

**Comment 11:** The commenters note that with the deletion of the labpack codes WL01 and WL02, costs for preparing annual reports have significantly increased. This is due to a reporting requirement to list every item within a labpack container on a separate GM form. The annual reporting for labpacks needs to be streamlined.

**Response:** *The annual reporting directions in TurboWaste are not regulations found in Chapter 173-303 WAC and cannot be addressed through the rule making process. As a note, the WL01 and WL02 codes, which have been removed from regulation, applied only to state-only dangerous waste (not to any waste carrying a federal hazardous waste code) and were originally intended to aid in the manifesting of waste. These codes were deleted because they conflicted with EPA's use of WL01 and WL02 for other purposes. Prior to 2005, waste codes were optional on the federal uniform hazardous waste manifest.*

### **WAC 173-303-110**

**Comment 12:** Commenters request that subsection 110(6) be deleted to remove the requirement to report lab analysis results as dry weight. Reporting of analytical results on a dry weight basis is inappropriate, and Ecology has not justified the regulatory basis for this requirement. A dry weight measurement will produce an analytical result that is not representative of the waste at the point of generation when the waste contains water or moisture.

**Response:** *Ecology has always expected results to be reported as dry weight unless otherwise identified by the analytical method. The state laboratory at Manchester states that they commonly report results as dry weight, and believe that is a common practice for labs in Washington State. It was recently brought to Ecology's attention that this requirement was not identified in the regulations and that methods in SW-846 do not make it clear how the results were to be reported. This change clarifies Ecology's expectation to remove any confusion. In*

*addition, Ecology believes this change is necessary to prevent any attempt to dilute dangerous waste concentrations in an attempt to avoid managing the waste as dangerous waste.*

**Comment 13:** Commenters questioned Ecology’s rationale for adding in WAC 173-303-110(6) the requirement to report lab analysis results as dry weight, since the requirement for determining the percentage moisture was removed from Biological Testing Methods 80-12.

**Response:** *Ecology removed the requirement to determine the percent moisture from Method 80-12 for two reasons: 1) the percent moisture value was not used by the method and laboratories conducting this evaluation asked for clarification on why it was required and 2) Method 80-12 does not look at individual components in the waste but treats the whole waste as is, regardless of individual constituents. There is no reason to report results on a dry weight basis, since analytical tests on constituents are not performed with this method. For these reasons, Ecology will retain this proposed change.*

### **WAC 173-303-160**

**Comment 14:** Determining whether a container is empty by visual observations or yard stick is easier than having to locate a scale and I am concerned that the change in approach won’t be implemented at regulated facilities because it’s simply cumbersome. Furthermore the result of this modification is to decrease the amount of material in an empty container.

**Response:** *Ecology is proposing this rule change to stay aligned with EPA and federal Department of Transportation regulations (see 55 FR 52471, December 21, 1990). The empty container rules still allow up to one inch of material to remain in a container, provided that all practical means have been employed to remove the waste. The rule was changed so that empty containers can optionally be evaluated by weighing the remaining waste, instead of by measuring the volume, as in the past. The commenter may be misunderstanding the definition of a container.*

*The qualifying condition for a container is that it is portable during use, but there is no size limit. For example, rail cars and tractor trailers qualify as containers. With large containers a yardstick is impractical and in many cases it is impossible or unsafe to determine by volume measurement if the container is empty. Scales are often used in determining when these containers are empty.*

*Other than a change to evaluation by weight, Ecology is not changing the approach in determining when a container is empty, as the commenter suggests. Those determining factors have been in use by regulators and regulated facilities for over 25 years, and do not appear to be cumbersome. As a result, the commenter could actually see an increase in the amount of material that remains in smaller (119 gallons or less) “empty containers”.*

### **WAC 173-303-180**

**Comment 15:** My concern is in regards to adopting the term “dangerous waste broker” (WAC 303-180.7(b)(4)). Please do not legitimize this activity which was not anticipated under federal

statute. What requirements does a “dangerous waste broker” have under Washington’s Dangerous Waste regulations? If a broker receives hazardous waste or arranges for its transport, then they should be subjected to regulation just as any other handler would, specifically, financial assurances. To do otherwise, allows someone to handle hazardous waste without consequences for their actions.

**Response:** *RCRA uses the term hazardous waste broker in the analogous federal manifest rule, and the state rule uses dangerous waste broker. The state rules keep the same language to stay consistent with federal rules. Generators, transporters or brokers are not subject to financial assurance, and it is not illegal for someone to act as a "broker" of dangerous waste. Brokers acting on behalf of the generator need to ensure wastes are properly packaged, labeled, manifested and transported. The generator is ultimately responsible to make sure the waste ends up at a permitted treatment, storage, disposal or recycling facility.*

### **WAC 173-303-200**

**Comment 16:** Commenters commended Ecology for changing the satellite accumulation rule to more closely align with the federal requirements. They suggest that Ecology’s satellite accumulation guidance be updated to reflect this change.

**Response:** *Support noted. Ecology will update the satellite accumulation guidance after rule adoption.*

### **WAC 173-303-320**

**Comment 17:** Commenters strongly recommended that Ecology add potentially decreased inspection requirements for members of EPA’s National Environmental Performance Track program as adopted by Federal regulations.

**Response:** *EPA has discontinued the Performance Track Program as of March 2009, precluding any states from adopting these regulatory incentives. EPA is communicating with Performance Track members about how the termination of the program will affect their management of hazardous waste. See also response to Comment 6.*

### **WAC 173-303-370**

**Comment 18:** The commenter notes that the reference to subsection (4)(a) in 173-303-370(2)(b) is incorrect and should be subsection (5)(a).

**Response:** *Comment noted. The citation in -370(2)(b) will be changed from (4)(a) to (5)(a).*

**Comment 19:** Commenters ask that the manifest rule identifies the specific paragraph in 370(5) that describes discrepancies, since most of subsection (5) is not relevant. This will maintain consistency with other relevant state and federal rules.

**Response:** *Comment noted. The citation in -370(4)(b) that cites subsection (5) will remain. Ecology sees no reason why this will cause misunderstanding of that regulation by the reader.*

**Comment 20:** The rule should identify the specific paragraph in 370(5) that describes manifest discrepancies, since most of subsection (5) is not relevant. This will maintain consistency with other relevant state and federal rules.

**Response:** *Comment noted. The citation in -370(6)(a)(ii) that cites subsection (5) will remain. Ecology sees no reason why this will cause misunderstanding of that regulation by the reader.*

### **WAC 173-303-380**

**Comment 21:** The unit of measures table 1 already includes pounds, short tones and kilogram up above in lines 7, 12, and 14 of the table. Please remove the redundancy.

**Response:** *Comment noted. The redundancy will be removed.*

**Comment 22:** What is the basis of the term “Tons” [in the unit of measures table]? Are these metric tons (e.g. 2300 lb/tonne) or short tons (2000 lb/ton)? If it is supposed to be metric tons then perhaps you could use the nomenclature of “Tonne” and indicate 2300 lbs similar to what was done above for Short tons (e.g. “Tonnes (2300 lbs)”). If it is supposed to be short tons, then clarify the conversion for those of us who are familiar with multiple units of tons (e.g. “Tons (2000 lbs/ton)”).

**Response:** *The basis for adding “tons” to the unit of measures table is to be consistent with the federal language in Table 1 of Appendix I of 40 CFR Part 264 (unit of measures table). “Tons”, as used in the unit of measures table, is an additional option facilities can report their estimated or manifest-reported weight of dangerous waste. According to EPA, (70 FR 10819, March 4, 2005), the manifested-reported weight of “tons” refers to 2000 pounds. The correct nomenclature is “Ton” and should only be used when reporting very large bulk shipments, such as rail cars, tank trucks or barges. Similar to the short ton, the conversion factor of “2000 lbs” will be added to the word “ton” in the unit of measures table found in WAC 173-303-380(2).*

### **WAC 173-303-400(3)(c)**

**Comment 23:** Ecology should have to prepare a new or revised cost benefit and least burdensome analysis for EPA’s Burden Reduction Rule before finalizing the decision not to adopt many of its provisions. The commenters state that the Administrative Procedures Act was not complied with because Ecology did not justify its determination not to adopt most aspects of the Burden Reduction Rule.

**Response:** *RCW 34.05.328 explains the steps an agency must take, “Before adopting a rule ...” There is no requirement that Ecology undergo the listed steps before declining to adopt a possible rule. There is also no requirement that Ecology undergo the listed steps for rules that already exist. Therefore, Ecology does not need to prepare a new “Cost Benefit Analysis” or “Least Burdensome Analysis” for regulations that remain unchanged.*

*Ecology is not legally obligated to adopt federal rule changes unless those changes are more stringent than the state's existing rules. At the time EPA published the final burden reduction rules, EPA noted that, "For those changes that are less stringent or reduce the scope of the federal program, states are not required to modify their program" (71 FR 16899). EPA also noted that, "All of the HSWA and non-HSWA requirements in today's rulemaking are equivalent to, or less stringent than, the existing provisions in the Federal Regulations which they would amend" (71 FR 16899).*

*The commenter states, "Ecology did not provide an analysis of each aspect of the Burden Reduction Rule nor did it articulate any rational basis for its claim that the proposed Ecology rule is the least burdensome alternative ..." As noted above, Ecology is not required to provide this analysis. It is only required to provide this analysis before adopting new rules.*

*Ecology did consider each change made by EPA and whether those changes could be incorporated into Washington's rules without increasing risk to human health or the environment. Ecology's "Proposed Amendments" Summary dated January 2009 explained that Ecology would not "adopt changes that could lessen the current level of human or environmental protection," (page 10). In addition, page 10 of the Summary also explains that Ecology made comments to EPA, explaining the basis for Ecology's opposition to many of EPA's proposed rules. The documentation is contained in the rulemaking file.*

*As noted in Ecology's comments to EPA, Ecology agreed with many of EPA's proposed amendments. For those regulations, Ecology either has performed a cost benefit analysis and least burdensome analysis or has explained why the analyses were not required. The "Cost Benefit & Least Burdensome Analyses" (publication 09-04-006) contains those analyses and explanations.*

*For convenience, we have attached a crosswalk of each of EPA's proposed amendments and the resolution of each provision. For federal regulations adopted by Ecology, the crosswalk lists applicable WAC sections being amended. The crosswalk also explains Ecology's reasoning and justification for not adopting certain federal versions of the rule. The crosswalk document is Appendix D of this Responsiveness Summary.*

*The crosswalk and explanations will also be added as Appendix 4 in the Cost Benefit Analysis and Least Burdensome Analysis to more thoroughly explain why Ecology did not adopt certain sections of EPA's Burden Reduction. We believe this addition is of "sufficient quantity and quality so as to persuade a reasonable person that the determinations are justified." (RCW 34.05.328(2))*

**Comment 24:** Ecology should not be able to claim a cost benefit and least burdensome analysis for EPA's Burden Reduction Rule is "not applicable" for a federal rule under RCW 34.05.328. The commenters believe that a new economic analysis should be done, which would result in Ecology adopting each of the Burden Reduction initiatives.

**Response:** *As noted previously, Ecology is not required to prepare a new Cost Benefit Analysis or a new Least Burdensome Analysis for existing rules. RCW 34.05.328 only applies to*

*rules being adopted by an agency, not potential rules an agency declines to adopt. Therefore, the Preliminary Cost Benefit and Least Burdensome Analyses table is correct when it states the analysis is “NA” (analysis not required) and “N” (necessary to retain existing rule). The rationale for not adopting most of the Burden Reduction Initiative is explained above and in the attached crosswalk.*

#### **WAC 173-303-400**

**Comment 25:** The citation doesn’t reflect current requirements for land disposal at a landfill. This citation fails to reflect the actual regulatory and statutory provisions that do, in fact allow for land disposal of an organic/carbonaceous waste and EHW under certain circumstances. The state regulation and statutory law allows for mixed waste EHW disposal at Hanford when other applicable laws and regulations are followed.

**Response:** *Ecology recognizes that more clarity is needed for organic/carbonaceous waste and EHW landfilling at Hanford, and will reword the proposal to include the reference to section 700. The reference to section 700 makes it clear what is meant in the regulations by the EHW facility at Hanford. In addition, Ecology will reword the proposal to include reference to the disposal allowances in section 140(4). The 140(4) reference incorporates section 140(5-7) and the RCW statute that the commenters were concerned about.*

#### **WAC 173-303-610**

**Comment 26:** The commenters request that the word “independent” be removed from the phrase “independent qualified registered professional engineer.” They do not agree that the use of licensed, in-house Professional Engineers (PE) has the potential to lessen the level of environmental protection, and in some cases may actually improve environmental performance. Use of independent PEs to verify certifications required under the dangerous waste regulations will add more time and costs for generators.

**Response:** *Although removal of the “independent” clause was a part of the federal burden reduction initiative, Ecology did not choose to adopt this part of the federal rule change and it will remain. The proposed and final rule the word “qualified” is added to the description of a professional engineer. The reason is because the word “qualified”, although included in the definition of “independent qualified registered professional engineer”, was inadvertently left out in several places where the phrase is used in the dangerous waste regulations. The addition of the word “qualified” will make the phrase consistent with the phrase defined in section -040.*

*Ecology does not agree that use of an in-house PE to certify engineering documents will provide significant financial relief. Companies often hire PE consultants to perform engineering work, and the cost of an independent PE certification under ordinary circumstances is small compared to the consulting services paid to perform other engineering work. Note that facilities are still permitted to use qualified in-house engineers in preparing analyses that underlie these certifications and can potentially lower their costs by using this specific flexibility.*

*Independent review and certification minimizes the potential for conflict of interest that can result when in-house PEs are used. An in-house PE may face internal management pressure to certify an inadequate engineering document, whereas an independent PE will not face this same type of pressure. They are not a full time employee of the company, with potential negative impacts to their career.*

*Ecology also believes that the public would have reduced confidence in the accuracy and meaning of the engineering review and certification if it was conducted by an employee of the facility. The public is more likely to suspect a conflict of interest and demand a more rigorous review by state agencies (especially during RCRA permit decision public comment periods).*

#### **WAC 173-303-640**

**Comment 27:** This is the same comment as made for WAC 173-303-610(6) and (11), except that this citation deals with professional engineer certification of tank assessment reports.

**Response:** *The response is the same as for Comment 26, except that no change was made to this citation in the proposed amendments. The word “qualified” did not have to be added because it had been added in prior rule amendments.*

**Comment 28:** The commenter requested that Ecology adopt the federal burden reduction rule that allows weekly inspections of dangerous waste tanks instead of daily inspections. Automated leak detection systems provide prompt notification of leaks, making daily visual tank inspections unnecessary.

**Response:** *Ecology considered reduced tank inspection frequencies and recognizes the request has some merit. We did not propose it as a rule amendment. The issue raised questions needing further study, which Ecology can re-visit for future rule-making. Ecology does not plan to adopt the rule at this time, since rule making procedures require Ecology to follow specific procedures and allow for public comment on this type of change.*

#### **WAC 173-303-645**

**Comment 29:** The commenters support Ecology’s inclusion of the Burden Reduction Rule provision for groundwater monitoring.

**Response:** *Support noted.*

#### **WAC 173-303-695**

**Comment 30:** The comment is the same as for WAC 173-303-610(6) and (11), except section 695 deals with PE certification of containment building design. It was also noted that the reference to 40 CFR 264.1101(c)(4) is incorrect, and should be 40 CFR 264.1101(c)(2).

**Response:** *The response is the same as for comment 26. In addition, the federal RCRA citation will be corrected to 40 CFR 264.1101(c)(2).*



## Methods Innovation Rule (MIR)

The EPA Methods Innovation Rule (MIR) removed from federal regulations most requirements to use RCRA-related sampling and analysis methods found in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,” also known as “SW-846”. Ecology chose not to adopt the MIR, and instead made state-initiated changes to the regulations to clarify that SW-846 methods must continue to be used, including where federal requirements (that discuss test methods) have been incorporated by reference into the dangerous waste regulations. Ecology’s intent with rule changes related to the MIR is to maintain the same test method requirements (and level of flexibility) in the state rules as existed before the MIR was promulgated.

### General

**MIR Comment 31:** Ecology is proposing to require use of SW-846 methods that EPA plans to update or change without going through rulemaking. We no longer have the assurance that these methods and changes will be peer reviewed, or if they are, that the reviews can be made available. Furthermore, this proposal may be an Administrative Procedures Act issue in that it would adopt into state rules prospective changes of another entity. A better approach might be for Ecology to create a table of methods, including revision and publication data, that Ecology has reviewed and considers acceptable and include that table in the proposed regulation. Thereafter any changes would go through state rulemaking procedures.

**Response:** *Ecology is only specifically adopting the SW-846 updates that have been approved before EPA promulgated the Methods Innovation Rule (MIR). All of these updates have gone through the public comment process. When EPA updates SW-846 in the future, Ecology will evaluate those changes through our rule amendment process and allow Washington citizens the opportunity to comment. Ecology understands that when EPA makes changes to SW-846, the new methods will continue to undergo the same scientific scrutiny as has been done in the past. In our evaluation, Ecology will make sure a high level of peer-review and scientific quality is maintained prior to adopting any proposed changes.*

**MIR Comment 32:** The commenter notes that Ecology is not adopting the EPA Methods Innovation Rule and keeping the requirement to use SW-846 methods. They quote Ecology’s rationale for keeping SW-846; “...cannot divert already over-extended resources to review methods outside of SW 846”, and question how Ecology can say it has the resources to support the formal petition process, but not the resources to support an informal review of an alternate method. Commenter states that Ecology’s role as state’s hazardous waste experts should be to keep abreast of emerging environmental analytical techniques. Further, since the generator ultimately is responsible for properly designating their waste, they take on the burden of proof for a new analytical method, and not Ecology. Last, Ecology should adopt MIR because EPA is itself the author of SW-846 and decided that SW-846 methods should not be a requirement.

**MIR Comment 33:** The commenter takes issue with Ecology’s reasoning behind retaining SW-846, which they paraphrase as “Removal of the requirement to use SW-846 would have a negative impact upon a majority of the regulated community, particularly small businesses not

familiar with other methods.” Removing the requirement to use SW-846 does not mandate using another method, since businesses will be able to choose the best method for their application. Choice does not create a burden.

**Response to comments 32 and 33:** *As stated in the preamble to the proposed state rule, maintaining requirements to use SW-846 methods for designation purposes provides simplicity to the majority of regulated generators. If Ecology adopted MIR making SW-846 methods optional (other than for method-defined parameters), generators will not have clearly defined test methods, but rather an array of test method options to choose from.*

*Most generators in the state have limited environmental staff to evaluate which methods are appropriate. Although the commenter is correct to say that the generator is responsible for designating their waste, Ecology inspectors also review facility test methods used to meet RCRA regulations, and need to verify their accuracy. Faced with unfamiliar test methods, Ecology inspectors would spend valuable time verifying appropriate methods were used.*

*SW-846 test methods give clear decision making for the vast majority of generators. In addition, several states made comments to EPA about their concerns with the MIR. EPA stated in the Federal Register announcing the adoption of the MIR that it was less conservative than existing regulations; therefore states who were concerned with the impact of MIR need not adopt it. EPA made no changes to the MIR to address the states’ concerns. As these concerns were not addressed, Ecology reviewed the impact of MIR and determined that it was not appropriate to adopt. See also the response to MIR Comment 34 and CTM Comment 22.*

**MIR Comment 34:** Ecology has chosen not to adopt the EPA language, but rather to adopt language further strengthening the requirement to use SW-846 methods. Therefore Ecology should meet the intent of The Administrative Procedures Act (RCW 34.05.328 (d) & (e) and conduct a thorough Cost Benefit Analysis of its proposed language versus the federal Methods Innovation Rule.

**Response:** *RCW 34.05.328 explains the steps an agency must take, “Before adopting a rule ...” There is no requirement that Ecology undergo the listed steps before declining to adopt a possible change to an existing rule. There is also no requirement that Ecology undergo the listed steps for rules that already exist. Therefore, Ecology does not need to prepare a new “Cost Benefit Analysis” for regulations that remain unchanged.*

*When Ecology reviewed this issue it found that many states raised the concern to EPA of the increased financial burden placed upon state resources if the Methods Innovation Rule (MIR) was adopted as proposed. EPA responded that “the regulatory changes in this rule are equivalent to or less stringent than the existing Federal regulations which they amended. Therefore, authorized States are not required to adopt and seek authorization for this rulemaking within their programs” (Federal Register Notice of June 14, 2005)*

*The commenter states, “Ecology has chosen to not adopt the EPA language, but rather to adopt language further strengthening the requirement to use SW-846 methods. Therefore Ecology should meet the intent of The Administrative Procedures Act (RCW 34.05.328 (d) & (e) and conduct a thorough Cost Benefit Analysis of its proposed language versus the federal Methods*

*Innovation Rule.” As noted above, Ecology is not required to provide this analysis. It is only required to provide this analysis before adopting new rules.*

*Ecology considered adopting EPA’s language and agrees with the basic principles of the proposed change, but believes overall it would create much greater costs than the existing language. The level of data and effort needed to prove a method is not valid is considerably greater than attempting to prove a method is appropriate. Retaining requirements to use SW-846 lessens the workload involved with evaluating new test methods. The proposed rules are the least burdensome for both Ecology and most generators.*

*Ecology also saw the potential negative impacts on data quality, possible negative impacts upon the regulated community, and potential legal impacts upon enforcement cases. The largest segment of the regulated community is small businesses who may have limited knowledge of analytical methodology and designation requirements. With the current requirement to use SW-846 approved methods for designation purposes, the regulations provide simplicity to the majority of the regulated community. The designation requirements are clearly defined with technically approved methods. If SW-846 were removed from the Dangerous Waste Regulations, this clarity would be eliminated.*

## **WAC 173-303-045**

**MIR Comment 35:** We do not agree with Ecology’s reasoning that SW-846 methods must currently be used in every instance where analysis is required, or that such requirements should be “retained”.

**Response:** *As background, the EPA publication SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, was removed from incorporation by reference in 40 CFR 260.11. This federal rule incorporates publications by reference. EPA instead incorporated a list of specific SW-846 test methods. Also EPA removed requirements to use SW-846 methods in several other places of the federal hazardous waste regulations. To remedy this situation and still retain use of SW-846 methods, state amendments to pertinent citations refer readers back to the state equivalent of 40 CFR 260.11, which is WAC 173-303-110(3).*

*The purpose of this change is to ensure that SW-846 methods and other Ecology approved test method publications will be used for designation and regulatory purposes. The commenter is not correct in stating that only SW-846 methods can be used for analysis, since section 110(3) allows several other sources of test methods to be used. Additionally, section 110(4) allows Ecology to approve substantial changes to test methods when opened up to public comment, such as in permit revisions.*

## **WAC 173-303-110**

**MIR Comment 36:** Replace the text of section 110(3)(a) with the identity of the specific test procedures being incorporated. The specific test procedures from SW-846 that are incorporated should be the same list as that found in 40 CFR 260.11(c)(3).

**Response:** *Currently section 110 includes, by reference, the SW-846 tests that EPA cites in 40 CFR 260.11(c)(3). Ecology believes the current citing of SW-846 test methods in section 110 is most appropriate for the vast majority of Washington State generators. By citing only specific tests as the commenter suggests, then as EPA removes, adds, replaces or modifies a test method, those “new or deleted” tests will not become available or non-applicable to the generator for years until the state adopts the change and becomes authorized by EPA to use them or to remove them. Ecology has adopted SW-846 in this fashion for over 20 years and does not anticipate any confusion as to what tests are needed to evaluate a solid waste. We will not incorporate specific test procedures in the same manner as found in 40 CFR 260.11(c)(3).*

**MIR Comment 37:** Incorporating the SW-846 manual by reference violates the Administrative procedures Act (APA), because it does not qualify as a code, standard or rule. Also, Ecology does not fully identify the incorporated matter, because it is not clear whether Ecology intends to adopt the entire manual or just portions of it.

**Response:** *RCRA and the dangerous waste regulations have incorporated the SW-846 publication into the regulations for a number of years, without contest. The existing introductory paragraph in section 110 states “All methods and publications listed in this section are incorporated by reference”. Because EPA chose to no longer incorporate SW-846 by reference, the proposed changes to the citation at 110(3)(a) merely reiterate that SW-846 is incorporated by reference. Ecology feels the standardized methods in SW-846 have, and continue to meet, regulatory requirements for designating waste. By continuing to incorporate the SW-846 publication, Ecology expects that generators and TSDs will use the publication in the same manner as they have in the past.*

**MIR Comment 38:** Incorporating SW-846 methods into the dangerous waste regulations by reference appears to make mandatory use of methods that were never previously required for waste analysis. For example, EPA notes in the preamble of the Methods Innovation Rule that the Toxicity Characteristic Leaching Procedure (SW-846 Method 1311), while required to prepare an extract for analysis, does not specify the method for analysis of the resulting extract. Instead, it allows use of “appropriate analytical methods” and has since 1992. Ecology has not provided any data to demonstrate that use of SW-846 is universally appropriate or compliant. Ecology has also not demonstrated that EPA improperly made any SW-846 methods non-mandatory in any of the situations where Ecology proposes to make them mandatory. Ecology should not pursue blanket imposition of SW-846 without substantial justification.

**Response:** *As mentioned in the previous response to comment, Ecology has incorporated the SW-846 publication into the rules for a number of years. Because we are retaining requirements to use SW-846 methods does not mean we now require use of methods that have not been required in the past. Ecology did not modify the dangerous waste rules for this purpose. Any rules changes in regards to the Methods Innovation Rule were made only to preserve the use of SW-846 or other methods approved in WAC 173-303-110(3).*

**MIR Comment 39:** Requiring the use of only SW-846 methods will place undue burdens on Washington State businesses, which is in direct opposition to the intention and wording of the federal Methods Innovation Rule, 70 FR 34537, 6/14/05. It is also likely to drive businesses out

of the state at a time when the state cannot afford the loss of tax base. The EPA states, “These changes [allowing a variety of testing and monitoring methods] should make it easier and more cost effective to comply with the affected regulations, without compromising human health or environmental protection.”

**Response:** *Ecology is not proposing any new regulation imposing additional burdens on Washington businesses. The dangerous waste regulations incorporated by reference SW-846 methods for many years. Proposed rules (related to the federal methods innovation rule or MIR) merely maintain requirements to use SW-846 for designation purposes, but do not add additional requirements to Washington generators.*

*As stated in more detail in previous responses, EPA received several comments from states who were concerned with the changes proposed by the MIR. In the Federal Register announcement adopting the MIR, EPA stated that it is less stringent than existing regulations. EPA continued by saying that states who were concerned about MIR need not adopt it. Retaining the SW-846 in the dangerous waste regulations implements that recommendation.*

**MIR Comment 40:** Commenters believe that revisions to this citation now make it mandatory to select one of the methods given in Chapter 2 of SW-846 for any waste. They state that this is inconsistent with the remainder of Section 110, where other methods are specified for certain types of wastes or certain constituents. Further, as presently written, subsection (f) is redundant to subsection (a) of this section, as SW-846 is already incorporated by reference in its entirety via the changes to subsection (a). The original purpose of subsection (f) was to assure consistency with Federal rules by referencing 40 CFR 261 Appendix II and Appendix III. As EPA has removed and reserved both appendices, the references are no longer necessary.

**Response:** *Ecology has not changed the requirement to use SW-846 methods for designation analyses. Generators may also petition Ecology to use alternative methods. Subsection 110(3)(f) focuses on toxic constituents while subsection (a) does not. In this sense the two subsections are not redundant or inconsistent. The terms “toxic constituents” and “dangerous waste constituents” are used interchangeably in the dangerous waste regulations.*

*On the other hand a toxic constituent, in and of itself, is not necessarily a dangerous waste. Subsection (f) identifies tests to be used for detecting the presence of toxic constituents when; 1) Ecology adds wastes to what are considered inherently waste-like materials, 2) During the process of delisting a dangerous waste; 3) When evaluating a generator’s waste against the state criteria; or 4) For corrective action purposes. This section will not be removed as suggested by the commenter.*

**MIR Comment 41:** Commenters request that the words “testing or analytical methods” be added to the title of this citation. This change would clarify that the petition process is for use of equivalent methods applies to testing methods, and not to other subjects in section 110, such as sampling methods. Also, Ecology should restore the use of the word “may” instead of “must”. There is no reason to insist on use of the petition process in all cases. For instance Ecology permit writers should have the flexibility to allow alternative methods to be used in the context of individual permitted facilities, where appropriate. Commenters object to the requirement to

use only the methods listed in section 110. Also, the subsection 910(2) process requires that Ecology go through a rule amendment process in order to add a new test method to section 110. This process is expensive and time consuming. Other processes should be considered in cases where an amendment to the WAC is unnecessary, for example, one-time approvals.

**Response:** *Ecology agrees with the commenter that the petition process is for approval of testing methods. The word testing will be restored. Ecology did not intend to require use of the petition process in every case where alternative testing or sampling methods (to those provided in subsection 110(3)) are needed. As allowed in subsection 110(4), Ecology can authorize use of alternative methods to those in WAC 173-303-110 if there is adequate opportunity for public review and comment (e.g., in a waste analysis plan, corrective action order, or other formal document subject to public notice). Test methods outside of section 110 can be used to support permitted facility operations, such as for safety purposes, and do not have to go through the petition process. One exception, subject to WAC 173-303-090(3), Ecology cannot authorize additional methods for designating characteristic wastes. Accordingly, Ecology will delete the word “must” from this citation.*

#### **WAC 173-303-140**

**MIR Comment 42:** Delete the proposed added sentence at the end of this paragraph imposing WAC 173-303-110(3)(a) in lieu of 40 CFR 260.11. We do not agree that imposition of the specified methods in subsection 110(3)(a) is appropriate in every case.

**Response:** *See response to comment 43. Subsection 110(3)(a) will be changed to section 110 so that references to analytical methods in addition to those available in SW-846 are included.*

#### **WAC 173-303-300**

**MIR Comment 43:** Requirements to use EPA SW-846 methods, as referenced in WAC 173-303-110(3)(a), creates an additional burden on the regulated community. Generators are allowed to use knowledge to designate their wastes, but the new requirement to use SW-846 methods means that treatment, storage and disposal (TSD) facilities receiving wastes from out-of-state generators (who used knowledge) will now need to apply additional testing methods.

**Response:** *Note that the proposed rule language at WAC 173-303-300(5)(f) references subsection 110(3), not 110(3)(a) as the commenters indicate. Subsection 110(3) includes references to analytical methods in addition to those available in SW-846.*

*Ecology agrees that generators can use knowledge to characterize their wastes when that knowledge is sufficient. The TSD receiving wastes is obligated to confirm that the information from the generator is acceptable to properly manage the wastes (see WAC 173-303-300(1)). When a generator bases waste information on knowledge, the TSD must follow requirements in WAC 173-303-300(2) to confirm the generator’s information. Although the TSD may need to use methods in WAC 173-303-110(3) to confirm information on the wastes on a case-by-case basis, the regulations do not require TSD’s to use specific analytical methods to confirm a generator’s knowledge.*

*Further, in accordance with WAC 173-303-110(4), Ecology can approve substantial changes to testing methods specified in WAC 173-303-110 when such approval is subject to public review and comment (such as in a permit.) The exception is that Ecology cannot approve an alternative method for formal waste designation pursuant to WAC 173-303-090(3).*

*Additionally, based on WAC 173-303-110(5), any person can request Ecology to approve an equivalent method by submitting a petition. Ecology is changing the proposed WAC citation reference at WAC 173-303-300(5)(f) from subsection 110(3) to 110, to allow the use of subsection 110(4), as explained above.*

**MIR Comment 44:** Requiring WAC 173-303-110(3)(a) methods in waste analysis plans could subject all activities under closure, post closure, and corrective action to those methods.

**Response:** *The response is similar to that above. First, Ecology changed the reference to all of WAC 173-303-110. Second, Ecology can approve substantial changes to testing methods specified in WAC 173-303-110, except for formal designation of characteristic wastes, in a document subject to public review and comments (see WAC 173-303-110(4)).*

**MIR Comment 45:** In many cases alternative methods (to SW-846), including test kits, can be useful in meeting requirements of TSD to confirm knowledge of wastes. Requiring use of methods in WAC 173-303-110(3)(a) is excessive.

**Response:** *See responses to Comments 42-44. Ecology agrees that methods in WAC 173-303-110 do not include all testing that is useful and appropriate for certain aspects of a facility specific waste analysis plan. In fact, analyses outside of the scope of those addressed in WAC 173-303-110 are often essential to confirm generator information, verify the waste shipment matches its profile and shipping papers, and ensure control of specific and unique waste management processes.*

*If the waste analysis plan is proposing a substantial change to a method specified in WAC 173-303-110, then the change can be approved if subject to public review and comment, such as in a permit (WAC 173-303-110(4)). If the method is for a purpose beyond the scope of methods specified in WAC 173-303-110, such as certain verification and processing analysis, that method can be accepted as part of a facility specific waste analysis plan. Ecology does not intend to remove options in a facility specific waste analysis plan for alternative analyses that are needed to safely operate a facility.*

## **WAC 173-303-380**

**MIR Comment 46:** The commenter expressed concern that all laboratory analyses in waste analysis plans will require specific methods in WAC 173-303-110(3)(a). The regulatory language ties the hand of permit writers in developing appropriate tests methods for permitted facilities despite Ecology's statement to the contrary in the preamble.

**Response:** *Ecology revised this proposed rule in response to this comment. First, we referenced all of WAC 173-303-110 instead of just 110(3)(a). Second, we limit the requirement for analytical*

*methods to be in WAC 173-303-110 to specific regulatory requirements (such as analysis to support land disposal restrictions). As indicated in the original preamble, it has always been the intent that waste analysis plans approved in permits not be limited to analytical methods found in WAC 173-303-110(3) (see response related to the comment on WAC 173-303-300(5)(f)).*

**MIR Comment 47:** The commenters concern is similar to Comment 46.

**Response:** *See Ecology's response to that comment.*

#### **WAC 173-303-400**

**MIR Comment 48:** The commenter objects to Ecology requiring only methods allowed by WAC 173-303-110(3)(a) for all laboratory analyses used in connection with waste analysis plans. The commenter believes other methods should be allowed unless the WAC 173-303-110(3)(a) method is the only one capable of measuring a particular waste property. Further, the restriction does not allow use of methods in WAC 173-303-110(3)(b)-(h).

**Response:** *We revised this section to reference all of WAC 173-303-110 instead of just section (3)(a). Based on WAC 173-303-110(4), Ecology can authorize use of alternative methods to those in WAC 173-303-110 if there is adequate opportunity for public review and comment (e.g., in a waste analysis plan, corrective action order, or other formal document subject to public notice). One exception, subject to WAC 173-303-090(3), Ecology cannot authorize additional methods for designating characteristic wastes.*

*Additionally, based on WAC 173-303-110(5), any person can request Ecology to approve an equivalent method by submitting a petition. Waste analysis plans approved by Ecology often require analyses in addition to those in WAC 173-303-110 for confirmation, verification, and process control. This has always been the case and the regulatory changes are not intended to reduce the flexibility to meet that need. See also the response to comments 43-45.*

#### **WAC 173-303-515**

**MIR Comment 49:** The commenters request deletion of proposed sentences in WAC 173-303-515(3) and (4), which require use of specified methods in WAC 173-303-110(3) when characterizing used oil. In addition, a commenter requested that similar proposed language in several other 515 subsections be removed, objecting to the required use of test methods in 110(3). They asked that Ecology adopt the federal methods innovation rule to give generators added flexibility in choosing the best and most cost effective methods for testing used oil.

**Response:** *The vast majority of used oil in WA State is managed as off-specification used oil, which basically requires no testing except for total halogens. Section 110 allows the use of the methods found in the federal EPA SW-846 test methods manual, in Ecology's Chemical Test Method publication #97-407, and other approved test methods. Within section 110 the reader will find a variety of methods to use in characterizing used oil. These methods have historically been used, found to be reliable and are readily available. Ecology will retain the proposed sentences in 515(3) and (4).*



*In several other 515 subsections referencing 40 CFR Part 279 used oil regulations, the proposed regulations stated that the test methods at WAC 173-303-110 (3)(a) must be used.*

*Subparagraph (a) specifically refers to EPA SW-846 methods, and doesn't include other test methods given in 110(3). To maintain consistency with the 515(3) applicability statement that requires use of test methods in 110(3), Ecology will delete the references to subparagraph (a) so that used oil testing is not restricted solely to SW-846 methods.*

**MIR Comment 50:** As with the previous comment, the commenters request removal of proposed language in section 515(3) and (4). Specifying use of test methods to only those in 110(3) restricts and omits needed test methods available for use in conducting the rebuttable presumption, testing for mercury and in characterizing oily waste (not used oil). The generator is required to determine if used oil is mixed with a dangerous waste.

In many relevant cases, it is not possible to determine if the used oil has been mixed with a dangerous waste simply by testing the waste; this must be determined through process knowledge. For example, the presence of chromium in excess of designation levels would not necessarily indicate mixing; the chromium may have resulted from use of the oil. This is the responsibility of the generator to determine. A generator would perform designation on oily waste, i.e. used oil that has been mixed with something else, not on used oil (as defined).

In order to demonstrate compliance with the rebuttable presumption regarding halogen levels, Ecology has allowed generators to utilize the Chlor-D-Tect kit for measurement. ("Used Oil Facts", cited above.) While it is an EPA-approved method, it is not listed in SW-846. Hence Ecology is removing this convenient and adequately accurate method for demonstrating compliance prior to burning used oil as fuel.

In addition, Hanford currently uses an EPA 600 series method, method 200.8 for analysis of mercury in used oil. The laboratory recommends use of this method. Used oil analysis should not be limited to SW-846 methods. Ecology has allowed 600 series methods in the Chemical Testing Methods publication on page 15, Section 3.1. Ecology should allow similar flexibility in WAC 173-303.

**Response:** *Ecology will retain the proposals as written, except that the reference to "only SW-846" will be broadened to include all test methods in section 110(3). The regulations do not omit the use of knowledge in evaluating used oil. For example, if the generator knows the source of halogens is from the refrigerant oil he collects, then that knowledge is acceptable in conducting a rebuttable presumption.*

*In other words, the generator can easily show by knowledge the source of the halogens are not from mixing the used oil with a dangerous waste. In evaluating oily waste (not used oil), it is viewed as solid waste which must be evaluated through traditional testing, as required for any solid waste. The used oil regulations would not be used in evaluating oily wastes as the commenters suggest.*

*The commenter is correct that, although the Chlor-D-Text field kit is an EPA approved test used in evaluating used oil, it is not listed in SW-846. However, SW-846 as well as Ecology's*

*publication #97-407 does allow the Chlor-D-Tect kits to be used. Ecology understands the commenters misunderstanding. "Chlor-D-Tect" kits are a brand name. By citing "Chlor-D-Tect" in publication #97-407 or in SW-846, Ecology as well as EPA would be essentially endorsing a private company; which we are not able to do.*

*In review of Table 3.8.4 of publication #97-407 (revised June 2009), Method 9077 is listed as a field test. Ecology understands that "Chlor-D-Tect" kits are an example of a field test kit that is based on SW-846 Method 9077. Therefore, Ecology is not removing this convenient method for testing used oil, as the commenters suggest. In reference to testing for mercury under the used oil regulations, there are no used oil requirements to test for mercury. If the generators wish to do so for their own knowledge, the used oil regulations would not interfere.*

#### **WAC 173-303-640**

**MIR Comment 51:** The commenter states that EPA allows analytical methods in addition to those in SW-846 that provide the same level of protection, and Washington businesses should be allowed this flexibility.

**Response:** *Ecology did not change WAC 173-303-640(1)(b) based on this comment. The analytical method referenced in this section is the paint filter test (SW-846 Method 9095B). Even under the Methods Innovation Rule, EPA retains the requirement to use this method. Ecology must maintain the requirement to be as stringent as the federal program.*

#### **WAC 173-303-690**

**MIR Comment 52:** The commenter objected to the restriction to use methods specified in WAC 173-303-110(3)(a) for all laboratory analyses for determining whether a waste is subject to WAC 173-303-690 (40 CFR 264 Subpart AA).

**Response:** *Ecology agrees with this comment and removed the following requirement in the draft rule: Where the federal regulations that have been incorporated by reference refer to 40 CFR 260.11, data provided under this section must instead meet the requirements of WAC 173-303-110(3)(a).*

*Ecology determined that there have always been analyses authorized for these air emission requirements that are not in WAC 173-303-110(3)(a). Therefore, there has always been flexibility in WAC 173-303-690 and 40 CFR 264 Subpart AA on use of alternative methods.*

#### **WAC 173-303-691**

**MIR Comment 53:** The commenter objected to the restriction to use methods specified in WAC 173-303-110(3)(a) for all laboratory analyses for determining whether a waste is subject to WAC 173-303-691 (40 CFR 264 Subpart BB).

**Response:** *Ecology agrees with this comment and removed the following requirement in the draft rule: Where the federal regulations that have been incorporated by reference refer to 40*

*CFR 260.11, data provided under this section must instead meet the requirements of WAC 173-303-110(3)(a).*

*Ecology determined that there have always been analyses required for these air emission requirements that are not in WAC 173-303-110(3)(a). Therefore, there has always been flexibility in WAC 173-303-691 and 40 CFR 264 Subpart BB on use of alternative methods.*

## **Chemical Test Methods**

Chemical Test Methods for Designating Dangerous Waste was extensively revised to update it and make it easier to read. Significant changes include:

- Separating it into two main sections; one on designation and another on test methods.
- Clarification that list of test method sources are not for designation purposes.
- Deleting the withdrawn EPA test methods for cyanide and sulfide reactivity and addition of optional ASTM test method for screening sulfide reactivity.
- A new section on optional SW-846 test methods for ignitibility and reactivity.
- RCRA Appendix IX list of constituents added as Appendix to CTM.
- Deleted reference to National Fire Protection Association publication on oxidizers.

**CTM Comment 1:** The commenter expressed concern that test method ASTM D4978-95 for screening of reactive sulfides was added to Ecology Chemical Test Methods publication # 97-407. Their concern was that use of this method might result in designation of materials that have not previously been designated as dangerous waste. They stated that this proposal would effectively modify the previous definition of reactive waste. Also, they indicated that they would like to have some of their materials tested by a lab using this method, but had not been able to locate a lab familiar with this method.

**Response:** *In the revised Chemical Test Methods (CTM) publication #97-407 Ecology is offering this ASTM method as an optional screening tool to replace the previously withdrawn EPA test method for sulfide reactivity. As discussed in the CTM guidance, the EPA test methods had been withdrawn by EPA, and now by Ecology, because of critical errors with the tests.*

*The ASTM methods offer the user an additional optional tool to screen for reactive sulfides in addition to the generator's knowledge of the waste. The expectation is that generators of potentially reactive sulfide wastes would use this recommended ASTM screening tool to determine the presence of reactive sulfides, and then compare the result with the descriptive definition of reactivity to make the designation determination. There is no regulatory requirement to use this ASTM test method, and Ecology is not changing the regulations regarding reactivity or requiring any new test method.*

*While labs may not be familiar with the 12 year old ASTM test, we believe the test method is more accurate than the previous EPA method, and has been shown to be an effective screening*

*tool. Also, if generators believe other test methods would be appropriate, they can contact Ecology for approval of those methods.*

**CTM Comment 2:** The date for the Chemical Test Methods Publication should be changed from February 2008 to January 2009.

**Response:** *Comment is noted and the date will be changed so that it reflects the publication date of the final revised version.*

**CTM Comment 3:** Chapter 1 Page 2, section 1.2, paragraph 4. Repword the last two sentences of this paragraph as follows: “There are two categories of persistent dangerous wastes: halogenated organic compounds (HOC) and polycyclic aromatic hydrocarbons (PAH). HOC and PAH are discussed in Chapter 3.” The wording proposed is confusing and implies that there may be more categories of persistent dangerous waste than are discussed.

**Response:** *The last two sentences of this paragraph have been reworded according to the comment.*

**CTM Comment 4:** Chapter 1 Page 2, section 1.3, paragraph 1. The commenter takes issues with the CTM statement “SW-846 methods were no longer required by EPA.....” stating that EPA actually retained use of SW-846 for methods that measure “method-defined parameters”. The Ecology requirement to use SW-846 methods for all designation analyses will add new testing requirements that did not previously exist. Ecology should add to regulation the specific SW-846 test methods that were deleted in the federal Methods Innovation Rule. Also, Ecology needs to revise the statement “All retained SW-846 Test Methods are discussed in Chapter 3”.

**Response:** *In 2005 EPA published in Federal Register notification that the Methods Innovation Rule (MIR) removes the requirement to use certain SW-846 test methods to designate hazardous waste as required by RCRA; however, EPA retained use of SW-846 methods in the final rule for test methods that measure “method-defined parameters”. States have the right to retain SW-846 requirements.*

*Ecology has decided not to accept the MIR for implementation in WA State, and will maintain the requirement to use SW-846 methods for regulatory purposes. The first two sentences of this paragraph have been reworded according to the comment.*

**CTM Comment 5:** Chapter 1 page 2 and 3, section 1.2, 4th paragraph & page 3: endnote 3. Ecology needs to remove the sentence in section 1.2 that states that “A book designation can only be done when the generator has sufficient knowledge of the waste to identify its contents and amounts”. Endnote 3 in Chapter 1 also needs to be revised to reflect that book designation is allowable with existing knowledge of the waste. The concern is that there are a few places in the document where Ecology’s language on book designation is different from what Ecology has stated in their 1993 past responsiveness summary. Ecology’s proposed changes appear to be a policy shift on when book designation is allowable. Ecology has not articulated any book designation policy change in this rulemaking. These issues pertain to what is considered 'sufficient' when reading WAC 173-303-100(5) and -100(5)(a).

The commenter believes that Ecology has redefined what constitutes sufficient generator knowledge of their wastestream, and now requires that the generator must understand the process that created the waste to identify the constituents of concern. This policy shift is contrary to WAC 173-303-100(5)(a), which says “if a person knows only some of the toxic constituents in the waste or only some of the constituent concentrations, and if the waste is undesignated for those known constituents or concentrations, then the waste is not designated for toxicity under this subsection”. The commenter sums up their concern by stating “when completing a book designation under WAC 173-303-100(5), existing knowledge is sufficient, and a generator is not obligated to seek additional information on a waste in order to complete a book designation”.

**Response:** *Ecology’s Hazardous Waste and Toxics Reduction program has evolved since the publication of the 1993 responsiveness summary (publication 93-92, October 1993). Ecology typically believes that a generator needs to apply more than existing knowledge of the waste when making a book designation. Therefore a person must determine if a solid waste meets the toxicity criteria by following either the instructions for book designation, when his knowledge of the waste is sufficient, or by testing the waste using the biological test methods bioassay (WAC 173-303-100(5)). Ecology believes that the generator’s ability to use testing and/or sufficient knowledge to properly designate waste will not change.*

**CTM Comment 6:** Chapter 1 page 2, section 1.3. Ecology should add a statement to the text saying that the list of constituents in Appendix 5 will remain consistent with EPA’s list of constituents in 40 CFR 264, Appendix IX. In Section 1.3, second paragraph, Ecology discusses the 40 CFR 264, Appendix IX table contained in Appendix 5 of the Chemical Test Methods publication. The commenter is concerned Ecology will add constituents on its own to the appendix IX list of constituents when EPA has not added them to 40 CFR 264, Appendix IX.

**Response:** *Ecology agrees with the comment, and will keep the list of constituents in CTM Appendix 5 consistent with the list in 40 CFR 264, appendix IX.*

**CTM Comment 7:** Chapter 2 page 4-13. Ecology should change the numbering in Section 2 to match Section 3. Specifically, change the “A” and “B” sections to numbers.

**Response:** *The numbering in section 2 has been changed to match section 3 numbering.*

**CTM Comment 8:** Chapter 2 page 4 & 13, section 2.A.1.3, & pg. 13, endnote 1. It appears Ecology needs to take a new approach to oxidizers in the Chemical Testing Methods publication, because the National Fire Protection Association (NFPA) approach to classification of oxidizers does not line up with the new approach being taken for oxidizers in WAC 173-303-090(5)(a)(iv). Ecology has not identified a correlation between NFPA oxidizers and the definition in the Dangerous Waste Regulations. NFPA uses the term 'combustible material' in the definitions of their classes. The WAC text talks about combustion of organic matter. There is also no information to support a position that all four classes of oxidizer under NFPA meet the WAC text above. Also, the container management regulations in WAC 173-303-630(8) rely in the International Fire Code instead of the NFPA. Guidance in this document should be based on oxidizers recognized by the International Fire Code.

**Response:** *Ecology agrees with the comment. Information about NFPA has been deleted to avoid confusion with the new regulatory definition for oxidizers in WAC 173-303-090 (5) (a) (iv).*

**CTM Comment 9:** Chapter 2 page 5, section A.1.4.1. The text for the regulatory definition for ignitable liquids should repeat verbatim the text from WAC 173-303-090(5)(a)(i). This requires adding text: “other than an aqueous solution containing less than 24 percent alcohol by volume”. The commenter objects to Ecology’s apparent attempt to “Plain Talk” the regulations.

**Response:** *The text has been changed according to the comment to match the regulatory definition in WAC 173-303-090(5)(a)(i).*

**CTM Comment 10:** Chapter 2 page 5, section A.1.4.2. EPA has established SW-846 Methods 1030 and 1050 as indicator tests for identifying ignitable solids. These methods should be referenced in the Chemical Testing Methods for Designating Dangerous Waste as tests that a generator may use to indicate whether a waste should be designated as an ignitable solid.

**Response:** *Although EPA established SW-846 Methods 1030 and 1050 as indicator tests for identifying ignitable solids, these methods are not required under the Dangerous Waste Regulations (WAC 173-303). These methods will be added to section three of the Chemical Testing Methods for Designating Dangerous Waste as optional indicator tests for identifying ignitable solids.*

**CTM Comment 11:** Chapter 2 page 5, section A.1.4.2. The text regulatory definition on ignitable solids should repeat verbatim the text from WAC 173-303-090(5)(a)(ii). The CTM text does not match the text in WAC 173-303. Ecology should not plain talk the regulations due to the potential for misinterpretations, and for each place in CTM where WAC 173-303 language is used; WAC 173-303 language should be repeated verbatim.

**Response:** *Agreed. The text has been changed according to the comment to match the regulatory definition in WAC 173-303-090(5)(a)(ii).*

**CTM Comment 12:** Chapter 2 page 5, section A.1.4.4. EPA has established SW-846 Method 1040 as an indicator test for identifying oxidizing solids. This method should be referenced in the Chemical Testing Methods for Designating Dangerous Waste as a test that a generator may use to indicate whether a waste should be designated under this criterion.

**Response:** *The use of SW-846 Method 1040 as an indicator test for identifying oxidizing solids is not required under Chapter 173-303 WAC. This method will be added to section three of the CTM as an optional indicator test method.*

**CTM Comment 13:** Chapter 2 page 5, section A.3.1. This text describing reactivity does not match the text in WAC 173-303-090(7). Ecology did not provide an explanation for this, and the reader suspects Ecology is trying to “plain talk” the regulations. Ecology should not plain talk the regulations due to the potential for misinterpretations, and for each place in Chemical Testing Methods for Designating Dangerous Waste where WAC 173-303 language is used, WAC 173-303 language should be repeated verbatim.

**Response:** *Ecology disagrees with this comment because this subsection is an introduction to reactive waste, and not the regulatory definition. The regulatory definition of a solid waste that exhibits the characteristic of reactivity is in subsection A.3.4 page 7 of the CTM. Ecology is required by Executive Order to Plain Talk all of the documents produced. It is not Ecology's intent to change regulatory requirements but to provide the information in a manner which is better understood by the general regulatory community.*

*Ecology is interested in any instances where the language changes may have appeared to alter or present the potential for misinterpretation of regulatory requirements, but must retain any 'plain talk' changes which improve the ability of the general community to understand regulatory requirements.*

**CTM Comment 14:** Chapter 2 page 5, section A.3.2. To be consistent with EPA interpretation of water reactive wastes, delete the last paragraph in Section A.3.2. Identification of sodium hydroxide and concentrated sulfuric acid in Section A.3.2 is confusing. These substances are not considered "water reactive" under EPA's interpretation of the D003 category. EPA has stated that water reactive wastes are generated on a sporadic basis and generally in low volumes. Most generators of reactive wastes are aware that their wastes possess this property and require special handling since these wastes are dangerous to the generators' own operation and rarely generated from unreactive feedstocks. Potential examples of water reactive wastes identified by EPA include agents GB (isopropyl methyl phosphonofluoridate), VX (Ethyl-S-diisopropyl aminoethyl methyl phosphonothidoate), and HD (Bis-2-chloroethyl sulfide). There are no suitable test methods for identifying water reactive wastes.

**Response:** *Ecology disagrees with the comment. According to 40 CFR 261.23, there are eight criteria for defining a waste as D003 reactive waste. EPA translated these eight criteria into 5 Subcategories of D003 waste (54 FR 48424). One of these subcategories is the water reactive subcategory and it refers to those D003 wastes that exhibit the properties listed in 40 CFR 261.23 (a) (2) through 261.23 (a) (4). Sodium hydroxide and sulfuric acid are given as examples of chemicals (in certain concentration) that can present a danger to human health when it reacts or mixes with water, consistent with EPA interpretation.*

**CTM Comment 15:** Chapter 2 page 8, section A.4.2, paragraph 3. Revise the last two sentences of A.4.2, third paragraph to read: "Table 3.5.1 (Chapter 3) lists the regulatory thresholds for the 40 TCLP constituents and identifies potential SW-846 methods for each constituent. Other methods may be equally reliable." Ecology's proposed wording makes the use of specific analytical methods for analysis of the TCLP extract mandatory. As noted in our comments at WAC 173-303-110(3)(a) and Chemical Testing Methods for Designating Dangerous Waste, Section 1.3, this actually imposes new testing method requirements on the regulated community.

**Response:** *The testing methods included in the dangerous waste methods (WAC 173-303-110) are specific to meet the requirements of these regulations. If the generator wishes to use methods which are not on the "approved list," they must petition Ecology and prove that the alternative methods provide reliable, consistently reproducible results yielding scientifically accurate and appropriate data. Ecology is not objecting to the use of other testing methods for compliance with the dangerous waste regulations; however, all testing must be performed using*

*methods capable of yielding data of the appropriate quality subject to the requirement of the section 910 petition process or the section 110 (4) method modification process.*

**CTM Comment 16:** Chapter 2 page 9, section B.1, item 3. Reword the text to match WAC 173-303-070(5)(c)(i): “The waste designates as state-only DW and will be burned for energy recovery as used oil, the generator must determine if it also designates as an EHW. Used oil cannot be burned for energy recovery if it is EHW or contains PCBs above 2ppm.” This text within the Chemical Testing Methods for Designating Dangerous Waste does not match the text in WAC 173-303. Ecology did not provide an explanation for this, and the reader suspects Ecology is trying to “plain talk” the regulations. Ecology should not plain talk the regulations due to the potential for misinterpretations, and for each place in Chemical Testing Methods for Designating Dangerous Waste where WAC 173-303 language is used, WAC 173-303 language should be used verbatim.

**Response:** *See Ecology’s response to similar Comment number 13.*

**CTM Comment 17:** on Chapter 2 page 9, section B.1, item 4. Item four appropriately identifies WAC 173-303-140(5), (6), (7) as allowing land disposal of EHW under certain circumstances, but fails to acknowledge State law at RCW 70.105.050(2) allowing for disposal of radioactive EHW provided certain conditions are met. Item 4, last sentence should be revised to include the State law provision.

**Response:** *Ecology agrees with this comment. Item 4 has been revised to include State law provision.*

**CTM Comment 18:** Chapter 2, page 10, section 2.B.1.1. Ecology should provide detailed guidance and criteria on how to determine which fish toxicity data is usable for book designation. The variation in types of studies leads to questions about what types of data should be used for book designating a waste. For example, should only adult fish data be used? Also, should only static test results be used, similar to the static fish toxicity test found in Method 80-12? Clarification is needed on what data can be discarded.

**Response:** *Ecology recognizes the concern about the amount and variety of data available within the ECOTOX database. There can be challenges associated with sifting through the data to determine the appropriate values to use for aquatic toxicity. The state-only toxicity rule for book designation (WAC 173-303-100(5)(b)(i)) does not specify a method for LC50 fish toxicity testing. Fish test studies used for book designation purposes do not have to use a method similar to Method 80-12 static acute fish bioassay test, or any other particular testing protocol.*

*The rule does require use of LC50 data and an exposure period greater than or equal to 24 hours. Also, the waste designator follows a taxonomic hierarchy where salmonid species take precedence over fathead minnow, followed by other fish species. The rule does require that the most conservative LC50 data be used. Stated another way, the values giving the highest toxicity must be used. It is important, however, to remember that regulations such as the Dangerous Waste Regulations are meant to be self-implementing.*



*Not all test results found in the EPA ECOTOX database, or other available data sources, are necessarily valid for book designating a waste. The generator needs to select fish test results that are appropriate for the waste being evaluated, and must be able to defend these decisions if questioned by Ecology. Ecology does not want to limit access to available data by narrowing the criteria further, either through guidance or rule. At this time Ecology will not provide any additional published guidance on this issue.*

**CTM Comment 19:** Chapter 2 page 10, section B.1.2, paragraph 1. Ecology is describing a statutory provision, yet identifies it as a regulatory requirement. Ecology should change the term to reflect reference to the RCW for Endnote 15.

**Response:** *Ecology agrees with the comment and paragraph one has been reworded to reflect the reference to the RCW for endnote 15.*

**CTM Comment 20:** Chapter 2 page 10, section B.1.2, paragraph two. For EHW designation of PAHs, change waste code “WP01” to “WP03” to match WAC 173-303-100(6). The waste code provided does not match WAC 173-303-100(6). For each place in Chemical Testing Methods for Designating Dangerous Waste where WAC 173-303 language is used, WAC 173-303 language should be repeated verbatim.

**Response:** *This was a typographical error. The concentration level of Polycyclic Aromatic Hydrocarbon (PAH) greater than 1.0% has been changed from WP01 to WP03.*

**CTM Comment 21:** Chapter 2 page 11, section B.3.2, last paragraph (persistence and half life). The text in Section B.3.2 on the definition of persistence and the last paragraph should repeat verbatim the definition of persistence in WAC 173-303-040 (Ecology cannot change the half-life from 365 days to 60-days (2 months) without a regulatory change).

**Response:** *Ecology agrees with the comment and the definition of persistence in CTM has been changed to reflect the definition of persistence in WAC 173-303-040.*

**CTM Comment 22:** Chapter 3 page 15, section 3.1, paragraph 3. This sentence requires the use of SW-846 methods for “all designation analyses”. As noted in our comments on WAC 173-303-110(3)(a) and Chemical Testing Methods for Designating Dangerous Waste, Section 1.3, this is inaccurate, misinterprets the intent of the Methods Innovation Rule (MIR), and imposes new requirements on the regulated community.

**Response:** *As stated in the response to CTM Comment 4, Ecology decided not to accept the MIR for implementation in WA State, and will maintain the requirement to use SW-846 methods for regulatory purposes as specified in WAC 173-303-110.*

*Ecology provided comments and concerns to EPA on the Methods Innovation Rule (MIR) during the public comment process, which are available in the public record. In response, EPA identified in its final adoption of the MIR that states who have these concerns should not adopt the MIR.*

*EPA did not make any changes to the MIR to address the issues raised by several states. Therefore, states such as Washington who have concerns about the impacts of the MIR have no option but to refuse to adopt the change.*

*Ecology does not disagree in principle with some of the issues raised in the comment. In principle, Ecology agrees that data quality could be improved by additional flexibility in method selection and analysis. Unfortunately, this principle was not appropriately implemented by the MIR. The rule fails to provide sufficient control over data quality. At the same time, the responsibility to prove that a method is adequate has shifted from the generator to the states and federal government. This process has proven unworkable in other regulatory venues and Ecology cannot accept such a drastic change to its regulatory authority.*

**CTM Comment 23:** Chapter 3 page 15, section 3.1, list of methods. Add “Analytical Methods for Petroleum Hydrocarbons”, Ecology publication 97-602, June 1997, to the list of methods on page 15. This Ecology publication contains methods used for soil and water analyses. The concern is that the current list does not contain all the methods Ecology should recognize.

**Response:** *Ecology guidance ‘Analytical Methods for Petroleum Hydrocarbons’ is required to meet Model Toxics Control Act regulatory requirements and not dangerous waste requirements. Although many regulations apply at a particular facility, only those guidance documents of importance to the dangerous waste regulations are included in this document. Therefore, Ecology will not insert this guidance into the CTM document.*

**CTM Comment 24:** Chapter 3 page 15, section 3.1, list of methods. We support Ecology providing a list of methods that are recognized in addition to SW-846 methods. We encourage Ecology to make sure this concept is included in the final WAC 173-303 text as well.

**Response:** *SW-846 has been deleted from the list of methods in CTM since it is already mentioned the source for waste designation methods. The lists of methods were not intended to be used for waste designation or to meet regulatory requirements. Methods not in WAC 173-303-110 can be approved to support facility operations as part of a permit process or other non-regulatory requirements. Ecology must approve method(s) that are not specified in WAC 173-303-110 before they can be used to designate waste. The list of methods on page 15 of the CTM will not be included in the final WAC 173-303 text.*

**CTM Comment 25:** Chapter 3 page 17, section 3.4, 2<sup>nd</sup> paragraph. Commenters would like this paragraph changed to say that narrow range pH paper can be used to confirm knowledge about a waste. Current wording cautions against using pH papers for corrosivity designation, since they are not as accurate as a pH meter. This statement can be construed to discourage use of pH paper in any case.

**Response:** *Comment is noted and the additional text on the use of pH paper has been added to the cited section. The test for pH must be an approved SW-846 method if it is being used for waste designation purposes.*

**CTM Comment 26:** Chapter 3 page 19, Table 3.6. The table should be corrected to the last column heading reads: Potential SW-846 Test Methods after 1311”. Ecology’s proposed wording makes the use of specific analytical methods for analysis of the TCLP extract mandatory, when previously they were not required. The testing requirements are new because TCLP Method 1311 does not specify by what method the TCLP extract needs to be tested.

**Response:** *TCLP extract analysis for organic and inorganic species are identified and quantified using methods in SW 6000, 7000 and 8000 series as specified in WAC 173-303 110. Although Method 1311 did not specify the method for testing the TCLP extract, Ecology has not changed the required use of SW-846 test methods after 1311. Therefore, Ecology is not imposing new testing method requirements on the regulated community. Other appropriate methods are recommended for use through the petition process (WAC 173-303-910(2)).*

**CTM Comment 27:** Chapter 3 page 20, section 3.7. Ecology should not limit the information used to book designate a waste to “product information”. Text needs to be changed to reflect that many sources of information qualify as knowledge that can be used to book designate a waste.

**Response:** *Since the dangerous wastes regulations are meant to be self-implementing, it is possible to book designate using other processes beside product information. However, other processes are less likely to be applicable, and their use would need to be justified if questioned by Ecology. The additional requested text to this section will not be included.*

**CTM Comment 28:** Chapter 3 page 20-21, section 3.7, 4<sup>th</sup> paragraph. References to Ecotox and HSDB databases should be deleted because of data quality issues, and their mandatory use results in a large number of new wastes becoming regulated.

**Response:** *Ecology included the use of ECOTOX and HSDB databases to determine state-only toxic waste because RTECS does not have aquatic toxicity data. Ecology has become increasingly aware that any book designation which does not consider aquatic toxicity ignores serious threats to the environment. In addition, some generators and in particular small businesses have raised concerns that they do not have easy access to toxicity data to conduct a book designation. The addition of ECOTOX and HSDB databases address both concerns.*

*Ecology does not think that the inclusion of ECOTOX and HSDB will result in a large number of new wastes being regulated. Book designation is only one of two techniques allowed in the regulations to conduct a state-only designation. Ecology suggests that the data in all three databases should be used with care. If the generator has concerns with the book designation because there are questions about the quality of the data available in any of the three databases identified, Ecology recommends that the generator conduct a fish or rat bioassay analysis (Method 80-12) as allowed by the regulations.*

*These bioassays supersede any book designation results and address the data quality issues raised. Therefore, the reference to ECOTOX and HSDB databases in the CTM will not be deleted. See also response to Comment 9 on WAC 173-303-100 state toxicity criteria.*

**CTM Comment 29:** Chapter 3 page 29, section 3.8.8.3. This section should be deleted since it will likely be very difficult to implement for the regulated community. Additive ingredients are often manufacturer's proprietary information. Detailed lab testing on polymer wastes will be necessary to determine type and concentration of additives. The methods provided in CTM for determining halogenated organic compounds (HOC) are inadequate for identifying the additives. Generators may need to be conservative and assume they have a persistent dangerous waste, resulting in many polymer wastes unintentionally being designated as dangerous waste. In addition, the requirement to evaluate additives seems to conflict with WAC 173-303-100(6)(a), which says that a generator must only evaluate for known constituents or known concentrations of their waste. Ecology also needs to explain the difference between HOCs which are chemically bound in the product and those that are only physically bound, in regards to persistence of these chemicals in the environment.

**Response:** *Ecology disagrees with the request to delete this text, although it acknowledges there can be challenges with evaluating wastes for state-only persistence criteria. The intent of Chapter 3, section 3.8.7.2, however, was to exempt polymer plastics which contain halogens firmly bonded in a chemical matrix. In these instances, persistent chemicals are only released after long periods of time or under extreme circumstances.*

*However, it was not Ecology's intent to exempt all plastics and chemicals contained in plastics. Ecology knows of numerous instances where additives in plastics have been released during use with a negative impact upon human health and the environment. Therefore persistent chemicals used in products, which meet the regulatory definition of an HOC and are readily released from the matrix, should be evaluated to determine if they meet state-only persistence criteria once they are declared a waste.*

*While Ecology generally believes that polymer plastics don't have to be evaluated for persistence, it is appropriate to evaluate additives to polymers and will keep the current language requiring this evaluation. Ecology recommends that generators work closely with their suppliers to identify HOCs in their products which might assist in the designation process once the products are declared waste.*

**CTM Comment 30:** Chapter 3 page 31, endnote 1. Ecology is proposing Chapter 3, Endnote 1 that describes laboratory accreditation. The way the endnote is written, an uninformed reader could conclude that laboratory accreditation is required by WAC 173-303. Because laboratory accreditation is not required by the dangerous waste regulations, Ecology should modify the endnote as proposed in order to preclude this perception.

**Response:** *Ecology agrees with comment and endnote 1 text has been changed to clarify that accredited labs do not have to be used for waste analysis.*

**CTM Comment 31:** CTM Appendix 1 page 33, Glossary. Correct the information in the definition of persistence.

**Response:** *Ecology agrees with the commenter and the definition of persistence has been changed to 365 days.*



# Appendices



# Appendix A

## Commenters Cross-Reference Table





**Comment Cross Reference Table**  
**Individuals and Organizations Providing Comment**

#	Commenter Name and Address	Comment Number
1	Harold Cashman Whatcom Environmental Services Inc. 228 East Champion Street #101 Bellingham, WA 98225	3,4. <b>CTM 2</b>
2	Beth Fifield Hodgson Spring Environmental, Inc. 1011 N. Cedar Street Spokane, WA 99201	14, 21,22
3	L.A. Huffman Department of Energy, Office of River Protection PO Box 450, MSIN H6-60 Richland, WA 99352	5,8,9,10,11,12,13,16,17,18,19,20,21,22, 23,24,25,26,27,28,29,30. <b>MIR 35,36-38,40-50,52-53</b>
4	Raymond Lam Silk Road Environmental 225102 E Donelson Road Kennewick, WA 99337	6
5	Patty Martin Safe Food and Fertilizer 617 H Street SW Quincy WA 98848	2,7,15
6	Llewellyn Matthews Executive Director NW Pulp and Paper Association 1300 114 <sup>th</sup> Ave SE, Suite 200 Bellevue, WA 98004	1 <b>MIR 31. CTM 1</b>
7	Tony McKarns Dept of Energy - Richland Operations PO Box 500, MSIN A5-15 Richland, WA 99352	5,8,9,10,11,12,13,16,17,18,19,20,21,22, 23,24,25,26,27,28,29,30. <b>MIR 35,36-38, 40-50, 52-53. CTM 3,4,5,6,7,8,9, 10, 11, 12,13,14,15,16,17,19,20,21,22, 23, 24, 25,26,27,28,29,30,31</b>
8	Tony Miskho CH2M Hill Plateau Remediation Company PO Box 1600, MSIN H8-45 Richland, WA 99352-1600	5,8,9,10,11,12,13,16,18,19,20,21,22,23, 24,25,26,27,28,29,30. <b>MIR 35,36-38,40-50,52-53. CTM 3,4,5,6,7,8,9, 10, 11,12,13,14,15,16,17,18,19,20,21,22,23, 24,25,26,27,28,29,30,31</b>
9	Harold Tilden Senior Environmental Policy Advisor Pacific Northwest National Laboratory PO Box 999 Richland, WA 99352	5,8,9,10,11,12,13,16,17,18,19,20,21,22. <b>MIR 35,36-38,40-50, 52-53. CTM 3,4,15,22,28,29</b>

10	Barry L. Vedder Washington Closure Hanford 2620 Fermi Avenue Richland, WA 99354	9
11	Chris Wollam Fluor Hanford PO Box 1000, E6-28 Richland, WA 99352	9,10,12,13,19,26. <b>MIR</b> 32, 33,34,35,36, 37,39,40-53

CTM=Chemical Testing Methods

MIR= Methods Innovation Rule

# **Appendix B**

**Preamble to the Proposed Amendments  
*Dangerous Waste Regulations*  
Chapter 173-303 WAC  
January 2009**



**Preamble to the Proposed Amendments**  
***Dangerous Waste Regulations* Chapter 173-303 WAC**  
**January 2009**

This document contains preamble explanations for the proposed amendments to the *Dangerous Waste Regulations*, Chapter 173-303 WAC. The proposed rule language itself is in a separate document, as are the changes to *Chemical Testing Methods for Designating Dangerous Waste* and to *Biological Testing Methods 80-12*. The proposed amendments were made public for review and comment in spring 2008.

Those comments were considered and as a result, some minor changes were made to the rules. Many of these changes were to the *Chemical Test Methods (CTM)*; other small changes provide clarification or corrected errors. The Chemical Test Method was re-organized as a result of these comments. This re-organization resulted in the addition of new items and deletion of some items from the last public review of Chemical Test Method. Chapter three of the CTM is now entirely devoted to the Analytical Test Methods for Designating Dangerous Waste.

Chapter two is devoted to information about dangerous waste designation and regulatory definitions. A major change deletes the EPA cyanide and sulfide reactivity test procedures, and Appendix 4 provides an EPA letter explaining why these tests are no longer valid. To replace the test for sulfide reactivity, a reference to an ASTM sulfide reactivity screening test is provided.

Because CTM was entirely reorganized, it was not possible to preserve the strike-out and underline that indicate all changes to the original document. Reviewers are asked to compare the final proposed draft CTM to the pre-proposal draft that was made available for public comment in spring 2008. Please contact Rob Rieck at [rori461@ecy.wa.gov](mailto:rori461@ecy.wa.gov) if you need more information about changes made to CTM.

If you have questions about these changes or the rulemaking process, call Rob Rieck at (360) 407-6751.

# ***Dangerous Waste Regulations* Chapter 173-303 WAC Draft Amendments**

**January 2009**

The *Dangerous Waste Regulations* will be amended in 2009. Ecology is proposing to adopt several federal hazardous waste rules into the state *Dangerous Waste Regulations*. Some are proposed with language that is identical to the federal rule. Others are proposed with differences in the state version.

This document lists all draft changes to the *Dangerous Waste Regulations*. Amendments based on federal rules are listed in Table 1. The summary paragraph from each Federal Register Notice is followed by an explanation of differences in the draft state rule language. **State differences are highlighted in gray.** If no differences are listed, Ecology will adopt all changes made by the federal rule into the state rule. State-initiated changes are listed in Table 2. The citations column lists where changes were made or provisions added to the *Dangerous Waste Regulations*.

This draft rule package includes amendments to the *Dangerous Waste Regulations* and changes to both *Biological* and *Chemical Testing Methods*. Submit comments by March 5, 2009 to Robert Rieck electronically at [rori461@ecy.wa.gov](mailto:rori461@ecy.wa.gov), or mail to:

Hazardous Waste and Toxics Reduction Program  
Department of Ecology  
PO Box 47600  
Olympia, WA 98504-7600

**Table 1. Federal Rule Summaries**

Federal Rule Title, Federal Register (FR) Notice Page number, and EPA summary		State Citation(s) where the federal rule language has been incorporated into the <i>Dangerous Waste Regulations</i>
		WAC 173-303
<b>Hazardous Waste Management System; Identification and Listing of Hazardous Waste; Recycled Used Oil Management Standards</b>		515(11)IBR
July 30, 2003	68 FR 44659	
<p><b>EPA SUMMARY:</b> Today's final rule eliminates drafting errors and ambiguities in the used oil management standards. Specifically, this rule clarifies when used oil contaminated with polychlorinated biphenyls (PCBs) is regulated under the RCRA used oil management standards and when it is not; that mixtures of conditionally exempt small quantity generator (CESQG) waste and used oil are subject to the RCRA used oil management standards irrespective of how that mixture is to be recycled; and that the initial marketer of used oil that meets the used oil fuel specification need only keep a record of a shipment of used oil to the facility to which the initial marketer delivers the used oil.</p>		
<p><b>DIFFERENCES IN THE DRAFT STATE RULE:</b> Only the third change listed above that EPA made to the federal regulations is being proposed by Ecology. The existing state rule, which is not being changed requires CESQG used oil that is mixed with waste to be managed under the requirements for dangerous waste burned for energy recovery. The state rule also has different standards for used oil contaminated with PCBs. The only changes being made to the state rule with this proposal are the changes to initial marketer requirements.</p>		
<b>National Emission Standards for Hazardous Air Pollutants: Surface Coating of Automobiles and Light-Duty Trucks</b>		691(1)(g) 400(3)(a)
April 26, 2004	69 FR 22601	



Federal Rule Title, Federal Register (FR) Notice Page number, and EPA summary	State Citation(s) where the federal rule language has been incorporated into the <i>Dangerous Waste Regulations</i>
<p><b>EPA SUMMARY:</b> This action promulgates national emission standards for hazardous air pollutants (NESHAP) for automobile and light-duty truck surface coating operations located at major sources of hazardous air pollutants (HAP). The final rule implements section 112(d) of the Clean Air Act (CAA) by requiring these operations to meet HAP emission standards reflecting the application of the maximum achievable control technology (MACT). The final rule will protect air quality and promote the public health by reducing emissions of HAP from facilities in the automobile and light-duty truck surface coating source category. The primary HAP emitted by these operations are toluene, xylene, glycol ethers, methyl ethyl ketone (MEK), methyl isobutyl ketone (MIBK), ethylbenzene, and methanol. The final standards are expected to reduce nationwide organic HAP emissions from major sources in this source category by approximately 60 percent.</p> <p>This action also amends the Surface Coating of Miscellaneous Metal Parts and Products NESHAP (40 Code of Federal Regulations [CFR] part 63, subpart Mmmm) and the Surface Coating of Plastic Parts and Products NESHAP (40 CFR part 63, subpart Pppp) to clarify the interaction between these rules and the Surface Coating of Automobiles and Light-Duty Trucks NESHAP (40 CFR part 63, subpart IIII).</p> <p>Additionally, this action amends the Resource Conservation and Recovery Act (RCRA) Air Emission Standards for Equipment Leaks at 40 CFR parts 264 and 265, subparts BB, for owners and operators of hazardous waste treatment, storage, and disposal facilities to exempt air emissions from certain activities covered by the final NESHAP from these RCRA standards.</p>	
<p><b>State rule:</b> These corrections have been incorporated into the state rule.</p>	
<p><b>Hazardous Waste Management System; Identification and Listing of Hazardous Waste; Dyes and/or Pigments Production Wastes; Land Disposal Restrictions for Newly Identified Wastes; CERCLA<sup>1</sup> 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</b></p>	<p>071(3)(kk)(i), (iii), and (v) 140(2)(a) 9904(1) &amp; (2) 9905</p>
<p>February 24, 2005</p>	<p>70 FR 9137</p>

<sup>1</sup> Comprehensive Environmental Response, Compensation, and Liability Act

Federal Rule Title, Federal Register (FR) Notice Page number, and EPA summary		State Citation(s) where the federal rule language has been incorporated into the <i>Dangerous Waste Regulations</i>
<p><b>EPA SUMMARY:</b> The Environmental Protection Agency (EPA) is today listing as hazardous nonwastewaters generated from the production of certain dyes, pigments, and FD&amp;C colorants. EPA is promulgating this regulation under the Resource Conservation and Recovery Act (RCRA), which directs EPA to determine whether these wastes pose a substantial present or potential hazard to human health or the environment when they are improperly treated, stored, transported, disposed of or otherwise managed. This listing sets annual mass loadings for constituents of concern, such that wastes would not be hazardous if the constituents are below the regulatory thresholds. If the wastes meet or exceed the regulatory levels for any constituents of concern, the wastes must be managed as listed hazardous wastes, unless the wastes are either disposed in a landfill unit that meets certain liner design criteria, or treated in a combustion unit as specified in the listing description. This rule also adds five toxic constituents to the list of hazardous constituents that serves as the basis for classifying wastes as hazardous. In addition, this rule establishes Land Disposal Restrictions (LDR) treatment standards for the wastes, and designates these wastes as hazardous substances subject to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This rule does not adjust the one pound statutory reportable quantity (RQ) for the waste.</p>		
<p><b>DIFFERENCES IN THE DRAFT STATE RULE:</b> There are no differences in the state rule.</p>		
<p><b>Hazardous Waste Management System; Modification of the Hazardous Waste Manifest System</b></p>		
<p><b>March 4, 2005</b></p>	<p><b>70 FR 10775</b></p>	
<p><b>EPA SUMMARY:</b> The Environmental Protection Agency (EPA) is establishing new requirements revising the Uniform Hazardous Waste Manifest regulations and the manifest and continuation sheet forms used to track hazardous waste from a generator's site to the site of its disposition. The revisions announced today will standardize the content and appearance of the manifest form and continuation sheet (Forms 8700-22 and 22a), make the forms available from a greater number of sources and adopt new procedures for tracking certain types of waste shipments with the manifest. The latter types of shipments include hazardous wastes that destination facilities reject, wastes consisting of residues from non-empty hazardous waste containers, and wastes entering or leaving the United States.</p>		<p>040 Definitions            -Designated Facility            -Manifest            -Manifest tracking number</p> <p>160(2)(a)            180            180(7)            180(8)</p>

Federal Rule Title, Federal Register (FR) Notice Page number, and EPA summary	State Citation(s) where the federal rule language has been incorporated into the <i>Dangerous Waste Regulations</i>
<p><b>DIFFERENCES IN THE DRAFT STATE RULE:</b> The draft state rule requires unmanifested waste reports (letters) to be submitted to the appropriate regional office. For unmanifested waste reports the federal rule listed treatment, storage, and disposal as the types of waste management at facilities. The state rule includes recycling as part of the list of waste management activities for which an unmanifested waste report would be required. This is consistent with the way the rule has been implemented.</p>	<p>190(3)(b) 190(4) 200(6) 230(1) 230(2)(c), (d), (e) 180(1) 250(1) &amp; (9) 250(6) 370(1) – (8) 390(1)</p>
<p><b>Waste Management System; Testing and Monitoring Activities; Final Rule: Methods Innovation Rule and SW-846 Final Update IIIB</b></p>	<p>083(2)(b)(iii)(A)&amp;(B) 090(5)(a)(i)</p>
<p><b>June 14, 2005</b></p>	<p><b>70 FR 34537</b></p>
<p><b>EPA SUMMARY:</b> The Environmental Protection Agency is amending a variety of testing and monitoring requirements in the Resource Conservation and Recovery Act (RCRA) hazardous and non-hazardous solid waste regulations and for certain Clean Air Act (CAA) regulations that relate to hazardous waste combustors. These amendments allow more flexibility when conducting RCRA-related sampling and analysis by removing from the regulations a requirement to use the methods found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," also known as "SW-846," in conducting various testing and monitoring and by limiting required uses of an SW-846 method to circumstances where the method is the only one capable of measuring the particular property (i.e., the method is used to measure a required method-defined parameter). This action is an important step forward in implementing the use of a performance-based approach, which is part of the Agency's efforts toward Innovating for Better Environmental Results.</p> <p>Additionally, the Agency is making certain other clarifications and technical amendments. These changes should make it easier and more cost effective to comply with the affected regulations, without compromising human health or environmental protection.</p>	<p>110(3)(a) 110(3) (d) 110(3)(f) 110(3)(g) 140(2)(a)(i) 140(4)(b)(iii) 300(5)(f) 380(1)(c) &amp; (f) 400(3)(c)(xiii) 515(10) 515(13)</p>

Federal Rule Title, Federal Register (FR) Notice Page number, and EPA summary

State Citation(s) where the federal rule language has been incorporated into the *Dangerous Waste Regulations*

**DIFFERENCES IN THE DRAFT STATE RULE:** The most significant difference in the state rule is that the requirement to use SW-846 is retained. Amendments will clarify that SW-846 must be used, including where federal requirements have been incorporated by reference.

The reasons for retaining the requirement to use SW 846 are:

1. Budgetary and workload impacts to the State.
2. Potential negative impacts to data quality.
3. Possible negative impacts upon the regulated community.
4. Potential legal impacts upon enforcement cases.

One of the major advantages of analytical methods contained in SW-846 is the detailed scientific evaluation to which they are subjected. As EPA identified in its Federal Register announcement of June 14, 2005: *'SW-846 methods, for example, are reviewed by a technical work group composed of national expert-level chemists who provide peer input and determine whether method reliability is sufficiently documented.'*

For this reason, Washington and other states have depended upon SW-846 to provide validated methods that can be used to meet the requirements of the regulations. Washington does not have the resources and, in a time of decreasing financial support from the federal government, cannot divert already over-extended resources to review methods outside of SW-846. While the requirement to use SW-846 testing methods will be retained, Ecology does have an existing petition process for deviating from SW-846 at WAC 173-303-110 (5) for equivalent testing methods.

Another reason to retain SW-846 is that its removal could potentially have a negative impact upon a majority of the regulated community. The largest segment of the regulated community is small businesses with limited knowledge of analytical methodology and designation requirements. With the current requirement to use SW-846 approved methods for designation purposes, the regulations provide simplicity to the majority of the regulated community. The designation requirements are clearly defined with technically approved methods. If SW-846 were removed from the *Dangerous Waste Regulations*, this clarity would be eliminated. It could also possibly increase the legal liability for this segment as the generator remains legally liable for designation of its waste.

Ecology is proposing to remove the EPA cyanide and sulfide reactivity test methods from the Chemical Test Methods publication (#97-407) and replace it with a reference to ASTM D4978-95(2007) method for Reactive Sulfides. The EPA methods had already been removed from SW-846 because of technical problems, but Ecology had retained them until better tests were available. The ASTM test is referenced because it will provide a better method of designating for sulfide reactivity.

The word "carcinogen" was corrected to read "carbonaceous" in WAC 173-303-400(3)(c)(xiii).

515(3)  
515(4)  
515(8)  
515(9)  
640(1)(b)  
645(4)(a) and (b)  
645(9)(g)(ii), (iii), and (iv)(A)  
645(10)(g)  
64610(4)  
690(2)  
690(3)  
806(4)(f)(iii)(A)(III)  
806(4)(xx)(D)(II)  
807(2)(a)(iii)  
910(2)(d)

Federal Rule Title, Federal Register (FR) Notice Page number, and EPA summary		State Citation(s) where the federal rule language has been incorporated into the <i>Dangerous Waste Regulations</i>
<b>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</b>		Corrections from this rule are included with the related rule dated February 24, 2005 70 <u>FR</u> 9137
<b>June 16, 2005</b>	<b>70 FR 35032</b>	
EPA SUMMARY: EPA issued a final rule in the Federal Register on February 24, 2005, listing as hazardous under the Resource Conservation and Recovery Act (RCRA) non-wastewaters generated from the production of certain dyes, pigments, and FD&C colorants. This document corrects typographical errors in the regulatory text and notes other typographical errors in the preamble.		
<b>State rule:</b> These corrections have been made.		
<b>Hazardous Waste Management System; Modification of the Hazardous Waste Manifest System; Correction</b>		Corrections from this rule are included with the related rule dated March 4, 2005 70 <u>FR</u> 10775
<b>June 16, 2005</b>	<b>70 FR 35034</b>	
"EPA SUMMARY: The Environmental Protection Agency (EPA) is correcting errors that appeared in the <i>Hazardous Waste Manifest Final Rule</i> , which was published in the Federal Register (FR) on March 4, 2005 (70 FR 10776). This final rule does not create new regulatory requirements."		
<b>State rule:</b> These corrections have been made.		
<b>Waste Management System; Testing and Monitoring Activities; Final Rule: Methods Innovation Rule and SW-846 Final Update IIIB</b>		These corrections were made to the groundwater list, which is incorporated in the state's draft update to publication ##97-407 <i>Chemical Testing Methods</i>
<b>August 1, 2005</b>	<b>70 FR 146</b>	
EPA Corrections to the FR Notice for Methods Innovation Rule (no summary in the FR Notice)		
<b>State rule:</b> These corrections have been made in Chemical Testing Methods.		
<b>Hazardous Waste Management System; Modification of the Hazardous Waste Program; Mercury-containing Equipment</b>		040 <ul style="list-style-type: none"> <li>• Mercury-containing equipment</li> <li>• Universal waste</li> <li>• Ampule</li> <li>• Large quantity handler</li> <li>• Small quantity handler</li> </ul>
<b>August 5, 2005</b>	<b>70 FR 45507</b>	
EPA SUMMARY: Today's final rule adds mercury-containing equipment to the federal list of universal wastes regulated under the Resource Conservation and Recovery Act (RCRA) hazardous waste regulations. Handlers of universal wastes are subject to less stringent standards for storing, transporting, and collecting these wastes. EPA has concluded that regulating spent mercury-containing equipment as a universal waste will lead to better management of this equipment and will facilitate compliance with hazardous waste requirements.		

Federal Rule Title, Federal Register (FR) Notice Page number, and EPA summary		State Citation(s) where the federal rule language has been incorporated into the <i>Dangerous Waste Regulations</i>
<p><b>Differences in the draft state rule:</b> Ecology's two separate categories for mercury universal wastes- Mercury-containing equipment and Mercury thermostats were combined into one Universal Waste Mercury-containing equipment category. The combined category includes all of the provisions from EPA's final mercury-containing equipment rule.</p>		<p>077(2)  600(3)(o)(ii)  400(2)(c)(xi)(B)  140(2)(a) [573(4)(d)] was deleted- it was a placeholder because of the overlap in timing between the state &amp; federal rule]  800(7)(c)(iii)(B)  573(1)(a)(ii)  573(3)(b)(ii)&amp;(iii)  573(9)(b)(i)-(iv)  573(10)(b) (i)&amp;(ii)  573(19)(b)(iv)&amp;(v)  573(20)(b)(i)-(iv)  573(21)(b)(i)&amp;(ii)</p>
<p><b>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)</b></p>		<p>110(1)  110(3)(g)(viii)  400(3)(a)</p>
<p><b>October 12, 2005</b></p>	<p><b>70 FR 59402</b></p>	<p>510(1)(a)</p>

Federal Rule Title, Federal Register (FR) Notice Page number, and EPA summary		State Citation(s) where the federal rule language has been incorporated into the <i>Dangerous Waste Regulations</i>
<p>EPA SUMMARY: This action finalizes national emission standards (NESHAP) for hazardous air pollutants for hazardous waste combustors (HWCs): hazardous waste burning incinerators, cement kilns, lightweight aggregate kilns, industrial/commercial/institutional boilers and process heaters, and hydrochloric acid production furnaces. EPA has identified HWCs as major sources of hazardous air pollutant (HAP) emissions. These standards implement section 112(d) of the Clean Air Act (CAA) by requiring hazardous waste combustors to meet HAP emission standards reflecting the performance of the maximum achievable control technology (MACT).</p> <p>The HAP emitted by HWCs include arsenic, beryllium, cadmium, chromium, dioxins and furans, hydrogen chloride and chlorine gas, lead, manganese, and mercury. Exposure to these substances has been demonstrated to cause adverse health effects such as irritation to the lung, skin, and mucus membranes, effects on the central nervous system, kidney damage, and cancer. The adverse health effects associated with exposure to these specific HAP are further described in the preamble. For many HAP, these findings have only been shown with concentrations higher than those typically found in the ambient air.</p> <p>This action also presents our decision regarding the February 28, 2002 petition for rulemaking submitted by the Cement Kiln Recycling Coalition, relating to EPA's implementation of the so-called omnibus permitting authority under section 3005(c) of the Resource Conservation and Recovery Act (RCRA). That section requires that each permit issued under RCRA contain such terms and conditions as permit writers determine to be necessary to protect human health and the environment. In that petition, the Cement Kiln Recycling Coalition requested that we repeal the existing site-specific risk assessment policy and technical guidance for hazardous waste combustors and that we promulgate the policy and guidance as rules in accordance with the Administrative Procedure Act if we continue to believe that site-specific risk assessments may be necessary.</p>		<p>670(1)(b)(i)  670(1)(b)(v)  806(17)  806(4)(j)(iv)(C)  806(4)(k)(v)(C)  806(4)(f)(v)  807  811  815(2)(b)(iii) (remainder renumbered and citation corrected)  830  830(4)(j)(i)  830(4)(j)(ii)  830(4)(j)(iii)  830(4)(k)  841</p>
<b>State rule:</b> These changes were incorporated into the state rule.		
<b>Resource Conservation and Recovery Act Burden Reduction Initiative</b>		
<b>April 4, 2006</b>	<b>70 FR 16861</b>	
<p>EPA SUMMARY: The Environmental Protection Agency (EPA), in accordance with the goals of the Paperwork Reduction Act (PRA), is promulgating changes to the regulatory requirements of the Resource Conservation and Recovery Act (RCRA) hazardous waste program to reduce the paperwork burden these requirements impose on the states, EPA, and the regulated community. EPA has estimated that the total annual hour savings under the final rule ranges from 22,000 hours to 37,500 hours per year. The total annual cost savings under the final rule ranges from approximately \$2 million to \$3 million. This rulemaking will streamline our information collection requirements, ensuring that only the information that is actually needed and used to implement the RCRA program is collected and the goals of protection of human health and the environment are retained.</p>		<p>017(5)(b)(ii)(B) through (G)  040- Definition  <i>Performance Track member facility</i> 140(2)(c)  140(2)(d)  140(2)(e)  140(2)(f)  140(4)(b)(i)  140(4)(b)(v)  350(2)</p>

Federal Rule Title, Federal Register (FR) Notice Page number, and EPA summary

State Citation(s) where the federal rule language has been incorporated into the *Dangerous Waste Regulations*

**Differences in the draft state rule:** Ecology is proposing to adopt only some of the changes from EPA's Burden Reduction Rule. Ecology is proposing to adopt all of the amendments that removed obsolete provisions; changes for detection monitoring at 40 CFR 264.98(d), (g)(2), (g)(3), (f), and (g); changes for compliance monitoring at 264.99(f), and (g); and allowing the use of an integrated contingency plan.

Ecology submitted comments to EPA when the federal rule was proposed, encouraging EPA to retain many of the existing requirements that EPA lessened under the Burden Reduction Rule. Ecology's proposed rule is consistent with those comments to EPA. Ecology is not proposing to adopt changes that could lessen the current level of human or environmental protection, that reduce access to available information, or that risk a conflict of interest. Therefore, Ecology will retain 1) existing requirements for record retention and submitting reports to Ecology, 2) requirements to use an independent registered professional engineer, 3) existing inspection frequency requirements - including not adopting the provision that would allow Performance Track Facilities to seek approval to conduct less frequent inspections, and (4) the requirement to notify Ecology of the intent to incinerate F020, F021, F022, F023, F026, or F027. This last requirement emphasizes that these wastes are held to a higher level of destruction.

In order to retain these requirements for the Interim Status Facility Standards that are incorporated by reference in section 400(3)(c), several additions were made. Rather than adding requirements, these additions retain existing requirements. This subsection did not list the 40 CFR subparts in alphabetical order, so it was reorganized. Now the federal subparts are in alphabetical order. In the draft language, provisions in 400(3)(c) that are not listed as having been changed, but are shown with strikeout and underline, were moved to a new location without being modified.

- 400(3)(a)
- 400(3)(a)(xiii)(B)
- 400(3)(c)(ix)(B)
- 400(3)(c)(ix)(C)
- 400(3)(c)(ix)(D)
- 400(3)(c)(ix)(E)
- 400(3)(c)(ix)(G)
- 400(3)(c)(ix)(H) & (I)
- 400(3)(c)(ix)(J)
- 400(3)(c)(ix)(K)
- 400(3)(c)(ix)(L)
- 400(3)(c)(v)(A)
- 400(3)(c)(v)(B)
- 400(3)(c)(v)(D)
- 400(3)(c)(v)(E)
- 400(3)(c)(vi)(C)
- 400(3)(c)(vi)(D)
- 400(3)(c)(vi)(E)
- 400(3)(c)(vii)(C)
- 400(3)(c)(vii)(D)
- 400(3)(c)(vii)(E)
- 400(3)(c)(viii)(A)
- 400(3)(c)(x)(A)
- 400(3)(c)(xi)(A)
- 400(3)(c)(xii)(A)
- 400(3)(c)(xviii)(A)
- 400(3)(c)(xviii)(B)
- 400(3)(c)(xviii)(C)
- 400(3)(c)(xviii)(D)
- 400(3)(c)(xviii)(E)
- 400(3)(c)(xviii)(F)
- 400(3)(c)(xx)(A)&(B)
- 400(3)(c)(xx)(C)
- 400(3)(c)(xxii)(A)
- 400(3)(c)(xxii)(B)



Federal Rule Title, Federal Register (FR) Notice Page number, and EPA summary

**Hazardous Waste and Used Oil; Corrections to Errors in the Code of Federal Regulations**

**July 14, 2006**

**70 FR 40253**

**EPA SUMMARY:** The Environmental Protection Agency (EPA) is correcting errors in the hazardous waste and used oil regulations, as a result of printing omissions, typographical errors, misspellings, citations to paragraphs and other references that have been deleted or moved to new locations without correcting the citations, and similar mistakes appearing in numerous final rules published in the Federal Register. This final rule does not create new regulatory requirements.

State Citation(s) where the federal rule language has been incorporated into the *Dangerous Waste Regulations*

- 040 Definitions
- Incompatible Waste
- Personnel or facility personnel
- Underground source of drinking water [referenced at 650(2)(l)(ii)(B)]

Federal Rule Title, Federal Register (FR) Notice Page number, and EPA summary

State Citation(s) where the federal rule language has been incorporated into the *Dangerous Waste Regulations*

**STATE RULE:** These errors have been corrected.

071(3)(aa)(ii)  
071(3)(g)(i)  
082(4)  
090(5)(a)(iii) & (iv)  
140(4)(b)(v)(B)  
140(2)(a)  
200(1)(b)(i) - (iv)  
300(5)(h)(iii)(B)  
310(2)(b)  
380(2)(b)  
400(2)(c)(ii)  
645(10)(h)  
645(9)(g)(iv)(A)  
640(4)(e)(ii)(E)(II)  
645(8)(a)(i)  
645(8)(a)(i)(A)  
655(12)  
650(2)(j)(i)(B)  
650(2)(j)(iii)(B)  
665(11)  
665(8)(a)  
665(8)(b)  
665(2)(k)(ii)(B)  
675(4)(a)(i)  
675(4)(a)(iv)(A)  
675(4)(b)  
675(4)(m)(ii) and (iii)  
690(1)(c)  
692(1)(c)  
806(12) was added  
806(4)(g)(viii)(A)-(D) were added  
830(3)(c) was added  
830 Appendix I F.2.  
830 Appendix I C.4.

Federal Rule Title, Federal Register (FR) Notice Page number, and EPA summary

State Citation(s) where the federal rule language has been incorporated into the *Dangerous Waste Regulations*

**National Emission Standards for Hazardous Air Pollutants: Final Standards for Hazardous Air Pollutants for Hazardous Waste Combustors; Amendments**

**April 8, 2008**

**73 FR 18970**

510(1)(a)

670(1)(b)(i)

670(1)(b)(iii)

**EPA SUMMARY:** EPA is finalizing amendments to the national emission standards for hazardous air pollutants (NESHAP) for hazardous waste combustors, which EPA promulgated on October 12, 2005. The amendments to the October 2005 final rule clarify several compliance and monitoring provisions, and also correct several omissions and typographical errors in the final rule. We are finalizing the amendments to facilitate compliance and improve understanding of the final rule requirements. This rule does not address issues for which petitioners sought reconsideration. Nor does it address issues raised in EPA's comment solicitation of September 27, 2007.

**STATE RULE:** These changes were incorporated into the state rule.

**Table 2. State-Initiated Rule Amendments**

Citation WAC 173-303-	Requirement	Reason for change
030	Add acronyms (PODC, DRE, APTI, MACT, TEQ, CAMU, TU)	Improve clarity of rule
040	Closure- update to reflect closure guidance	Clarification that closure is required by recyclers, generators, some generators and transporters
040	Compliance Procedure- remove the dates	Removed the years that were cited (instead of including all years) Added the title of the second chapter that was cited by number
040	Inhalation LC <sub>50</sub> definition added  Dermal LD <sub>50</sub> definition modified to Dermal Rabbit LD <sub>50</sub>  Oral LD <sub>50</sub> definition modified to Oral Rat LD <sub>50</sub>	Definition moved from section 100  Definitions modified for consistency with Toxic Category Table in WAC 173-303-100(5)
040	Person	Updated to match federal rule
040	Staging Pile- Add "must be designated by the director" CL 175	Updated to match federal rule
040	Surface Impoundment- Change language to reflect federal definition	The word "dangerous" deleted for consistency with federal rule and authorization by EPA
045	Incorporation by reference updated	The date was revised for provisions that are incorporated by reference to July 2007
070(7)(c)	Clarify that counting exclusion applies to permit by rule (PBR)	Clarification- this has mistakenly been interpreted to apply to TBG units- reference added to 802(5)
070(8)(d)	Used oil burned for energy recovery	Citations corrected
071(3)(cc)(ii)	NAICS deletions- 487110, 722310, 425110	3 codes 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	Provide clarity to the regulated community on which waste codes to use

Citation WAC 173-303-	Requirement	Reason for change
090(5)(a)(i) and (6)(a)(i), & (iii)	ASTM and NACE updates	Update
090(6)(a)(ii)	Clarify that the NACE test method is the same as SW-846 Method 1110A	Clarification
100(2), (3), (5)(b)(i)	Two toxicity data sources added- Ecotoxicology database (ECOTOX) and Hazardous Substance Database (HSDB)	100(5)(b) Additional data sources (ECOTOX and HSDB) are added because: 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 not in as much detail. HSDB has a lot of other information which may be of use such as PBT status; and 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 parenthetical reference regarding category D or above at (5)(c)(i), and "category range" at (5)(c)(ii) as these are unnecessary	Unnecessary phrase deleted
100(5)(b)(iii) Example 1 continued	Delete last sentence of example	Based on the example, the waste couldn't be a special waste even if it was at a lower concentration since the waste is aqueous
104(5) & 180(5)	Delete lab pack codes due to a conflict with new federal manifest rule	Lab pack codes are no longer allowed on manifests and should not be used

Citation WAC 173-303-	Requirement	Reason for change
110(1)	<p>Test method results need to be reported on a dry weight basis</p> <p>First sentence revised.</p>	<p>Clarification that dry weight basis is required to compensate for variability in water content and consistency for designation test results. This clarification was added to Chemical Testing Methods also.</p> <p>The first sentence was revised for clarity. It is now closer to the federal version. The revision prevents misunderstandings about the purpose of the test methods listed. For example, other methods can be used in permits to support facility operations.</p>
<p>110(2)(a), (3)(a), (3)(e), (3)(g), &amp;(3)(h)</p> <p>(2)(a)(vi), (2)(b)</p>	<p>ASTM updates, corrections, &amp; clarifications</p> <p>Reference to AC&amp;D liquid sample removed</p>	<p>Corrections and clarifications</p> <p>110(2) Reference to the AC&amp;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&amp; 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.</p> <p>Most recent update to SW 846, which is now in EPA guidance</p>
110(3)(a)	Update IV to SW 846	
110(3)(b)	Biological Testing Method guidance update	<p>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. and could probably reduce staff slightly.</p>

Citation WAC 173-303-	Requirement	Reason for change
110(3)(c)	<p>Chemical Testing Method guidance update</p> <p>Ecology has split this guidance into two separate parts to make it more easily understood and useful - a designation guidance and a chemical test methods guidance.</p>	<p>Ecology received input that its guidance document 'Chemical Testing Methods for Designating Dangerous Waste' was confusing and contradictory. Therefore Ecology has edited the document to address these concerns. These edits do not change the contents of the guidance document or change regulatory requirements in any way. The edits make Ecology's expectations clearer and more easily understood. In addition, Ecology added an additional method that can be used to meet state-only persistence designation requirements. This method has been evaluated by Ecology since the last re-write of the guidance in 1997.</p>
110(3)(g)(x)	Duplicate deleted [see (vii)] CL 154 & 158	Edit
110(5)	Clarify requirement to submit petition for alternate test method	<p>"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 method must use the petition process.</p>
120(4)(c)	Correct second (c)(vii) to (c)(vix)	Citation corrected
140(4)(b)(iii)	Correct test method reference	Correction
140(4)(b)(iv)(B)	Updated for ASTM	Test method update
145(2)(b)	Add local air authorities in eastern Washington	Reflects the presence of local air authorities in eastern Washington
200(1)(b)(ii) & (iii) 200(4)(a)(iv)(A)(II)	See 640 and 675 for "stress of installation"	This phrase was deleted at 200 and added at 640 & 675
200(1)(b)(iv)	Correct the references	<p>A sentence was added to substitute the state citations for the federal citations for closure &amp; financial assurance.</p> <p>The word "shall" was changed to "must".</p>
200(2)(a)	Satellite Accumulation	<p>Removed "per waste stream" for consistency with the federal rules. Ecology will continue to implement this rule the same as it has in the past. Separate satellite areas are still allowed for different waste streams being generated fairly close to each other.</p>

Citation WAC 173-303-	Requirement	Reason for change
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> ]	Updated
282(2)(b)(v)	Deleted obsolete language and added new language for recycling facilities that would be exempt from siting criteria	Revised which recycling facilities are exempt from siting criteria
282(3)(p)	Significant expansion	Clarifies what is meant by a 25% expansion- storage capacity is the base
282(4)(a)	Delete language related to the original effective date of the section	Obsolete language deleted
281(4)&(5)	Citations corrected from 840 to 830	Citations corrected
310(1)	Reworded	Reworded to be consistent with federal rule
380(1)(f)	Add "incorporated by reference" for clarity	Clarifies that the requirements have been incorporated by reference
400(2)(c)(xiv)	Federal language added	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	For equivalence with federal rule
400(3)(c)(iv) Moved from (3)(a)(x)	Reference regarding Subpart B modified as the only part of Subpart B that is incorporated by reference is 265.19	Clarification- not necessary to reference all of subpart B since interim status facilities are required to comply with WAC 173-303-290 (see -400(3)(a)(i))
505(1)(b)(iv)	Delete "v"	Citation corrected



Citation WAC 173-303-	Requirement	Reason for change
506(3)(vii)	CFC recycling- delete exception from closure and financial responsibility 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)	100(6)(a)&(b) corrected	Correct internal citation
522(4)	Correct the reference from 24 hour recycling to immediate recycling	Reference corrected for consistency with dangerous waste recycling requirements
610(3)(a)(ix), (3)(b)(ii)(D), (8)(b)(iv), and (8)(d)(ii)(D)	Change (1)(d) to (1)(e)	Citation corrected
610(12)(e) 620(1)(e)(ii)	Change "resource reclamation units" to "recycling units"	Terminology correction for consistency
620(3)(c)(iv)	Add corporate guarantors (see 620(6)(a)(vi))	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	New option for financial assurance
620(4)(d)(i)	Add "used oil" to clarify that trust funds can be used by UO processors and recyclers	Clarification that used oil processors may use partially funded trust funds
620(5)(c) 620(5)(d) 620(7)	Add hyphen to post-closure	Edit
640(4)(c)(i) & 675(4)(a)(v)  200(1)(b)(ii) & (iii) 200(4)(a)(iv)(A)(II)  Federal	Add "stress of installation" (move from 200)  Deleted now that it has been added to 640 and 675	Relocated the requirement

Citation WAC 173-303-	Requirement	Reason for change
610(6) & (11)	Add "qualified" to the certification requirement	Consistency with federal rule & other required certifications
64660(3)(d)(iv)(F)	Modify "SW846" to "SW-846"	For consistency
665(13)	Added a reference to this provision 140(4)(b). It used to be at 665(9)- (in federal rule at 264.314).	Addition required by EPA for equivalence with the federal rules
806(2)(a)	Corrected citation from 803(4) to 803(3)	Citation corrected
806(4)(h)(iii)	Add federal language on facility siting	For federal equivalence
806(8)	Updated for federal consistency	Language updated for consistency with federal rule and authorization
810(11)(c)	Duplicate provision deleted	Provision exists at 810(11)(e)
810(16)	Citation corrected	Citation corrected
830(3)(c)	Add federal language	For federal equivalence
830(4)(b)(vii)	Corrected reference (b)( <del>6</del> )(i) – (ii)	Citation corrected
845(8)(c)	Delete "Parts 1 and 3"	Update reference to Chapter 173-160
902(2)(c)(i) – (vi)	Citizen Proponent Negotiation	Language added to correlate with existing language and new recycling facility exemption from siting criteria in 282(2)(b)
910(3)	Petition to exempting waste	Clarification that "storage" capacity is the base for a 25% expansion
9901	Delete obsolete title	Reserved section title removed
9902	Delete obsolete title	Reserved section title removed

# **Appendix C**

## **Public Notices**





# PREPROPOSAL STATEMENT OF INQUIRY

**CR-101 (June 2004)**  
(Implements RCW 34.05.310)  
Do NOT use for expedited rule making

**Agency:** Department of Ecology AO# 07-12

**Subject of possible rule making:** Dangerous Waste Regulations, chapter 173-303 WAC will be amended to incorporate several federal hazardous waste regulations, including updates to manifest requirements, merging universal waste rules for mercury-containing devices and mercury thermostats, and incorporating some of EPA's Burden Reduction Initiative rules. Some state-only requirements will be updated; these consist mainly of technical and editorial corrections and clarifications. Testing methods for state wastes will be updated. Changes are being considered to some permit pre-application requirements.

**Statutes authorizing the agency to adopt rules on this subject:** Chapters 70.105 and 70.105D RCW, the Hazardous Waste Management Act and Hazardous Waste Cleanup-Model Toxics Control Act.

**Reasons why rules on this subject may be needed and what they might accomplish:** The main purpose of this rule process is to update the Dangerous Waste Regulations by incorporating recent federal hazardous waste requirements into the state's regulations. Ecology is authorized by EPA to implement the federal hazardous waste program in Washington. By staying current with the federal program, the regulated community has primarily one environmental agency to work with. The second purpose is to update state requirements to make improvements, corrections, and clarifications.

**Identify other federal and state agencies that regulate this subject and the process coordinating the rule with these agencies:** The federal Environmental Protection Agency (EPA) implements hazardous waste regulations in Washington until Ecology adopts those regulations and begins implementing them. A formal EPA authorization process follows Ecology's rule adoption. EPA is aware of which federal regulations Ecology intends to adopt during this rule process. Ecology will provide drafts and the formal proposal to EPA for their review and will communicate and coordinate with EPA throughout the process.

**Process for developing new rule (check all that apply):**  
 Negotiated rule making  
 Pilot rule making  
 Agency study  
 Other (describe) The main purposes of this rule making is to update existing hazardous waste requirements with newer federal rules. Since many of these are already in effect and were developed as part of federal rule making, the process will consist primarily of making draft and proposed rule language available for review and comment. Input will be sought during the draft rule phase where Ecology may differ from EPA on some optional federal rules. Ecology is seeking comment at this time on possible changes to permit pre-application requirements. See attached.

**How interested parties can participate in the decision to adopt the new rule and formulation of the proposed rule before publication:**  
(List names, addresses, telephone, fax numbers, and e-mail of persons to contact; describe meetings, other exchanges of information, etc.)  
To submit comments on amending permit pre-application requirements or for more detailed information about the rulemaking content and process contact: Patricia (Chipper) Hervieux at [pher461@ecy.wa.gov](mailto:pher461@ecy.wa.gov) or, you may call (360) 407-6756, write Attn: HWTR PO Box 47600 Olympia, WA 98504-7600, or FAX (360) 407-6715. To receive draft and proposed rules, hearing announcements, and opportunities for public involvement you may sign up for the DW Regulations list serve at <http://listserv.wa.gov/archives/dw-rules.html>

**DATE**  
10/18/07

**NAME (TYPE OR PRINT)**  
Darin Rice

**SIGNATURE**  
*K Seiler for DR*

**TITLE**  
Program Manager, Hazardous Waste and Toxic Reduction

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## Process for developing new rule continued

Ecology is asking for comment on whether or not the following permit pre-application requirements should be amended as described below:

1. clarify what a 25% facility expansion means,
2. delete obsolete language,
3. exempt recycling facilities from siting criteria if they meet several important limitations, and
4. exempt certain facilities from citizen proponent negotiations.

**1. Clarify what a 25% facility expansion means.** A facility that proposes a 25% facility expansion in a permit renewal or modification triggers Siting Criteria because 25% is considered a significant expansion. There are two areas that need clarification.

**First is to clarify that a 25% facility expansion means storage design capacity.**

The current regulation refers to process design capacity. Process design capacity can be interpreted either of two ways—storage design capacity or volume of waste processed through the facility over a period of time. Clarifying an expansion as storage design capacity is consistent with current guidance and the way the state implements the current regulations. Storage design capacity is a numeric limit in permits that is clearly documented and enforceable, making it a more reliable measure as the basis for a facility expansion. Permits do not have specific limits on how much waste can be processed through a facility's operation. Instead, permits specify the maximum amount of waste that can be onsite at any given time (storage design capacity), aspects of process design, and management practices to properly process waste.

**Second is to provide clear and reasonable criteria for triggering siting criteria after the initial significant expansion.**

The change would clarify that a significant expansion is a single or cumulative increase of greater than 25% 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.

**2. Delete obsolete language that exempted two recycling facilities from siting criteria when Ecology adopted the original regulation.** At the time the original siting criteria were written, two recycling facilities were not able to meet the siting criteria. They were exempted from siting criteria and allowed to apply for permits. This language that exempted the facilities is no longer relevant, although it demonstrates that, historically, there have been existing recycling facilities that needed to apply for permits, but could not do so because they did not meet the siting criteria.

**3. Exempt recycling facilities needing storage from Siting Criteria and Citizen/proponent negotiations if they meet important limitations.** Ecology is considering adding rule language to exempt existing and new recycling facilities from

- (iii) land treatment,
- (iv) surface impoundment to be closed as a landfill, or
- (v) waste pile to be closed as a landfill.

This change would not affect requirements for new “designated zone facilities,” any incinerators or land-based operation such as landfills and surface impoundments, or any facility whose location is not consistent with local zoning requirements. The scope of the CPN process fits those types of facilities. The change would only affect existing designated zone facilities.

CPN does provide an opportunity for local communities to negotiate conditions with a facility owner that are above and beyond regulatory requirements. However, the full CPN process has only been used once. With or without CPN, the community and public have the opportunity to comment on conditions of the permit through the normal permitting process.

CPN is subject to several requirements. For “designated zone facilities,” the full process happens only if all of the following conditions are met:

- The community is interested and committed to the CPN process;
- The lead local government is willing to conduct the CPN process;
- Ecology has funding available to support the process with a grant (up to \$50,000 initial funding, with the possibility for an additional \$50,000 renewal); and
- The facility is willing to participate (including matching Ecology’s grant funding).

Exempting existing “designated zone facilities” that are applying for a significant expansion from the CPN process would simplify the regulations by eliminating a process that has confusing conditions and by reducing the administrative burden to local government.





October 18, 2007

Natural Resources Director  
Organization  
Address  
City, State

Dear Natural Resources Director,

The Department of Ecology's Hazardous Waste and Toxic Reduction Program is beginning a rule development process to amend the *Dangerous Waste Regulations*, Chapter 173-303 WAC.

The process will accomplish two goals. The first is to adopt federal hazardous waste rules to update the State program. Ecology is required to periodically amend the *Dangerous Waste Regulations* to maintain our authority to operate the federal hazardous waste program in Washington State. Some of these rules are already in effect in Washington and are implemented by EPA until Ecology adopts them. Federal requirements to be proposed include new manifest requirements, combining universal waste rules for mercury-containing devices and mercury thermostats, and incorporating some of EPA's Burden Reduction Initiative rules.

The second goal is to update requirements specific to Washington State. Most of these changes are technical and editorial corrections. Some rules will be clarified, and state testing methods will be updated.

As always, we would be happy to meet with you on a government-to-government basis, and invite you to let us know if these rule amendments are of concern to you. If you would like to engage in formal consultation on this rule, please contact me to create a joint consultation schedule that meets your needs.

We expect to have draft rule language available for comment later this year, and will formally proposed rule amendments in 2008. You are welcome to comment on the proposed and draft rule language and to attend the public hearings. To stay current on the progress of the rulemaking, join our list serv at <http://listserv.wa.gov/archives/dw-rules.html>.

If you have any questions or comments about this rulemaking process, please call me at (360) 407-6756.

Sincerely,

Chipper Hervieux  
Hazardous Waste and Toxics Reduction Program

cc: Tom Laurie, Government Liaison, Ecology




**Subject:** Department of Ecology rule-making activities published in the Washington State Register on Wednesday, November 7, 2007.

**From:** "Dumar, Laurie (ECY)" <ldum461@ECY.WA.GOV>

**Reply-To:** Dumar, Laurie (ECY)

**Date:** Fri, 16 Nov 2007 08:09:38 -0800

**Content-Type:** multipart/alternative

**Parts/Attachments:**  [text/plain](#) (103 lines) , [text/html](#) (124 lines)

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## [LISTSERV.WA.GOV](#)

### RULE-MAKING PRE-PROPOSAL

#### Chapter 173-303 WAC - Dangerous waste regulations

Dangerous waste regulations, chapter 173-303 WAC, will be amended to incorporate several federal hazardous waste regulations, including updates to manifest requirements, merging universal waste rules for mercury-containing devices and mercury thermostats, and incorporating some of EPA's burden reduction initiative rules. Some state-only requirements will be updated; these consist mainly of technical and editorial corrections and clarifications. Testing methods for state wastes will be updated. Changes are being considered to some permit preapplication requirements.

#### More information:

Ecology web site: <http://www.ecy.wa.gov/laws-rules/activity/wac173303.html>

WSR Notice: <http://apps.leg.wa.gov/documents/laws/wsr/2007/21/07-21-110.htm>

Thank you for using WAC Track!




**Subject:** Dangerous Waste Regulation Pre-Proposal Notice published in the Washington State Register on Wednesday, November 7, 2007.

**From:** "Hervieux, Patricia (ECY) "  
<pher461@ECY.WA.GOV>

**Date:** Mon, 19 Nov 2007 17:04:46 -0800

**Content-Type:** multipart/alternative

**Parts/Attachments:**  [text/plain](#) (39 lines) , [text/html](#) (56 lines)

You are receiving this email because you are subscribed to the Department of Ecology's Dangerous Waste Regulation list serv.

## **RULE-MAKING PRE-PROPOSAL**

### **Chapter 173-303 WAC - Dangerous waste regulations**

Dangerous waste regulations, chapter 173-303 WAC, will be amended to incorporate several federal hazardous waste regulations, including updates to manifest requirements, merging universal waste rules for mercury-containing devices and mercury thermostats, and incorporating some of EPA's burden reduction initiative rules. Some state-only requirements will be updated; these consist mainly of technical and editorial corrections and clarifications. Testing methods for state wastes will be updated. Changes are being considered to some permit preapplication requirements.

#### More information:

Ecology web site: <http://www.ecy.wa.gov/laws-rules/activity/wac173303.html>

WSR Notice: <http://apps.leg.wa.gov/documents/laws/wsr/2007/21/07-21-110.htm>

Chipper Hervieux  
Hazardous Waste and Toxics Reduction Program  
Department of Ecology  
(360) 407-6756  
[pher461@ecy.wa.gov](mailto:pher461@ecy.wa.gov)





# ShopTalk

A PUBLICATION FOR DANGEROUS WASTE MANAGERS

Winter 2007  
Vol. 17 No. 3  
Pub. #07-04-003

## Ask for Lead-free Wheel Weights

The next time you replace or balance your tires, consider asking for coated steel weights instead of the more common lead weights. A lead wheel weight can fall off and deteriorate, then lead ends up in the air and road dust.

A typical car or light truck has more than one-half pound of lead in wheel weights. A study found that approximately 13 percent of weights fall off of vehicles. In Washington, that works out to roughly 80,000 pounds of lead each year!

"Most of us never think of our wheel weights, but replacing the lead weights on our cars is an easy way to reduce lead in the environment," said Holly Davies, a chemical action plan developer at the Department of Ecology.

Lead is harmful to human health and the environment, and children are particularly vulnerable to the health impacts from lead. The 2007 Legislature considered, but did not pass a bill to ban the use of lead wheel weights.

Ecology is planning to replace the lead weights on their fleet vehicles with the most environmentally preferable alternative: steel weights that are coated to prevent rust.

The businesses that service Ecology's fleet support our request for lead-free alternatives. Most have indicated they will stock steel weights and provide them to customers upon request.

The cost of the steel weight is slightly higher than lead, but as the demand for steel increases, the price should drop.

For more information on the state Chemical Action Plan for Lead, visit: [www.ecy.wa.gov/programs/swfa/leadcap/](http://www.ecy.wa.gov/programs/swfa/leadcap/).

## Rule Update in 2008

Ecology will update the *Dangerous Waste Regulations*, Chapter 173-303 WAC, in 2008. The changes will make the state's rule more consistent with the federal rules and the hazardous waste program of the U.S. Environmental Protection Agency. This includes the manifest rule and combining the universal waste categories for mercury. The changes will also update the biological and chemical testing methods.

Join the electronic list serve to learn more about the upcoming amendments: <http://listserv.wa.gov/archives/dw-rules.html>. If you have questions about the rule amendment process, contact Chipper Hervieux at (360) 407-6756 or e-mail her at: [pher461@ecy.wa.gov](mailto:pher461@ecy.wa.gov).

## Special Solvent Recycling Program Ends

As of January 31, 2008, Safety Kleen will no longer offer its "Continued Use" (CUP) solvent recycling program in Washington. Generators that had been part of the program will now need to designate their spent solvents. If it is dangerous waste you must count the solvent weight towards determining your generator status. More regulatory requirements may apply depending on your status.

Only a limited number of businesses were enrolled in CUP. If you have questions about how this may affect your business, call the hazardous waste compliance staff at your Ecology regional office. (See contact numbers on page 4.) To learn more about hazardous waste management, go to [www.ecy.wa.gov/programs/hwtr/reg\\_comp\\_guide/index.html](http://www.ecy.wa.gov/programs/hwtr/reg_comp_guide/index.html).

## No Dangerous Waste Workshops in 2008

## State Earns National Award

The National Pollution Prevention Roundtable (NPPR) recognized Washington's Lean and Environment Project with the Most Valuable Pollution Prevention award.

The Roundtable presented the award in Washington D.C. on September 20. The Lean and Environment Project (see *Lean and Clean Succeed*) was sponsored by the Department of Ecology and Washington Manufacturing Services. Together, the three pilot projects saved the participating companies \$1.38 million annually and cut their hazardous waste by 89,200 pounds, among other benefits.

"These projects are an amazing demonstration of how saving money and environmental protection are complementary and not mutually exclusive," said Ecology Director, Jay Manning. "In each of these projects, superior environmental management resulted in improved productivity and efficiency, and greater profits."

NPPR is the largest membership organization in the United States devoted solely to pollution prevention. The roundtable's mission is to provide a national forum to promote efforts that avoid, eliminate, or reduce pollution at the source.

## Calling All Dentists!

*Best Management Practices for Dental Office Waste* (#06-04-007), a new Ecology booklet, discusses topics of concern for dental offices. It covers how to manage amalgam waste from chair-side traps, vacuum pump filters and the office plumbing, what to do with x-ray wastes, lead foil, and aprons, and how to choose an amalgam separator. For your free copy, contact Dave Zink at (360) 407-6752 or e-mail: [dzin461@ecy.wa.gov](mailto:dzin461@ecy.wa.gov).







## Draft Dangerous Waste Rule Amendments for Your Review!

You are receiving this message because you are subscribed to the Department of Ecology's Listserv for updates to the Dangerous Waste Regulations.

Draft amendments to the Dangerous Waste Regulations, chapter 173-303, are ready for your review and comment. These are draft amendments- your comments will be taken into consideration before amendments are formally proposed to the regulation.

A summary document lists all of the draft changes and the citations where you will find those changes. Several federal rules are included in the draft amendments such as EPA's Manifest Rule, there are numerous technical corrections and edits, and both Biological and Chemical Testing Methods are being updated. The summary of rule changes, a comment form, draft rules, and test methods are at: [WEBSITE](#)

Comments are due by April 25 to Chipper Hervieux at [pher461@ecy.wa.gov](mailto:pher461@ecy.wa.gov) or mail to Dept. of Ecology HWTR, attention Chipper Hervieux, PO Box 47600 Olympia WA 98504-7600.

If you have questions, call 360.407.6756

[Draft rule email to lists serve March 2008](#)



**Department of Ecology  
Rule-making Agenda**

\*The bolded dates indicate filings that have occurred. Shaded rows indicated adopted rules.

3 = High  
2 = Medium  
1 = Low

WAC Chapter	Program	Chapter Title	CR-101 Filing Date	6-week Rule Language due (final for filing)	CR-102 Filing Date	4-week Rule Language Due (entered after CR-102 filing)	CR-103 Filing Date	Level of Controversy	Significant Leg. Rule	Rules Unit's Program Contact	Economist
173-400 and 173-460 AO # 05-19	AQ	General regulation for air pollution sources (173-400-110 only) and Controls for new sources of toxic air pollutants	1/18/06	Done	11/19/08	Done	10/5/09	3	Y	Tom Todd/Linda Whitcher	Kasia
173-406 and 173-400 AO # 07-07	AQ	Acid Rain Regulation (Mercury emissions from coal burning power plants) and General regulation for air pollution sources (173-400-112 and 113 only)	3/21/07		On Hold		On Hold	1	Y	Tom Todd	Kasia
173-441 AO # 08-13	AQ	Green House Gases Reporting	7/23/08	#####	07/15/09	09/03/09	10/01/09	3	Y	Nancy Pritchett	Kasia
173-422 AO # 08-01	AQ	Motor vehicle emission inspection	8/6/08	06/03/09	07/15/09	11/17/09	12/15/09	2	Y	John Raymond	Shon
173-400 AO# 09-01	AQ	General regulation for air pollution sources	2/4/09	10/21/09	12/02/09	03/18/10	04/15/10	2	Y	Linda Whitcher	Kasia
173-303 AO # 07-12	HWTR	Dangerous Waste Regulations	10/19/07	12/03/08	01/14/09	06/01/09	06/29/09	2	Y	Rob Rieck/Nancy Farman	Sarah
173-700 AO # 04-13	SEA	Wetland Mitigation Banking - Pilot Rule	7/13/04	01/21/09	03/04/09	07/03/09	07/31/09	2	Y	Lauren Driscoll/Yolanda Holder	Kasia
173-26-670 AO # 08-15	SEA	Spokane County Shoreline Master Program	8/5/08					2	Y	Doug Pineo and Peter Skowlund	Shon
173-26-670 AO # 08-15	SEA	Critical Area Ordinances - Emergency Rule	N/A		N/A					Tom Clingman	N/A



## **Dangerous Waste Regulations (Washington Administrative Code 173-303)**

The Department of Ecology is proposing to adopt amendments to the *Dangerous Waste Regulations*. The proposal notice will be published in the Washington State Register on February 4, 2009.

The purpose of this rule proposal is to update the dangerous waste regulations to be current with the federal hazardous waste program. Other changes update state requirements, making technical and editorial corrections and providing clarification for some existing rules. In addition, the *Biological Testing Methods* and the *Chemical Testing Methods* for state-only waste publications will be updated.

Highlights of the proposed rules are:

- Manifest rules will be updated.
- Merging universal waste rules for mercury-containing equipment and mercury thermostats.
- Incorporating portions of EPA's Burden Reduction Initiative Rule.
- Two Ecology publications, *Biological Testing Methods 80-12* and *Chemical Testing Methods* (Publication #97-407) are being updated.
- Modifying pre-permit siting criteria for treatment, storage, disposal, and recycling (TSDR) facilities. Siting criteria is used to determine where a facility can be located. Recycling facilities will be exempt from these requirements in limited circumstances.

A State Environmental Policy Act checklist was completed and Ecology has issued a Determination of Nonsignificance (DNS). Impacts to small businesses from these rule changes were evaluated and it was determined that the proposed amendments do not have a disproportionate impact on small business. Also, a preliminary cost-benefit and least burdensome analysis was completed. These documents are available for review and comment until March 5, 2009.

### CONTACT INFORMATION

**Submit comments on the proposed amendments to:**

Robert Rieck  
Department of Ecology  
Hazardous Waste &  
Toxics Reduction Program  
PO Box 47600  
Olympia WA 98504-7600  
E-mail:  
[rori461@ecy.wa.gov](mailto:rori461@ecy.wa.gov)  
Fax: (360) 407-6715

**Submit comments on the Chemical Testing Methods publication #97-407 to:**

Samuel Iwenofu  
Department of Ecology  
Hazardous Waste & Toxics  
Reduction Program - SWRO  
PO Box 47775  
Olympia WA 98504-7775  
E-mail:  
[siwe461@ecy.wa.gov](mailto:siwe461@ecy.wa.gov)  
Fax: (360) 407-6305

**Comments on the proposed amendments and the changes to the Testing Methods publications are due by 5 p.m., March 5, 2009.**

## Public involvement

Your comments on the proposed rule amendments are welcome and will be considered before adoption. Adoption is scheduled for May 22, 2009. The comment period ends March 5, 2009. Comments must be received by 5:00 pm.

You can give us your official comments in the following ways:

1. Testify at public hearings.
2. Visit our website and submit comments electronically at <http://www.ecy.wa.gov/laws-rules/activity/wac173303.html>. Draft rule amendments and other pertinent documents can be viewed at this website. Call Dave Zink at (360) 407-6752 if you would like to receive a paper copy.
3. Fax or e-mail comments to Ecology. See contact information on the previous page.

For more information about the proposed rules, contact Robert Rieck at (360) 407-6751 or by e-mail at [rori461@ecy.wa.gov](mailto:rori461@ecy.wa.gov).

## Public hearing schedule

The public hearing will be held by simultaneous video conference on Tuesday, February 24, 2009 starting at 1 pm. You can participate at any of the following locations:

- Department of Ecology, 300 Desmond Drive SE, Auditorium ROA-32, Lacey, WA 98503; Telephone (360) 407-6000
- Department of Ecology Northwest Regional Office, 3190 160<sup>th</sup> Avenue SE, Room 2A, Bellevue, WA 98008; (425) 649-7000
- Department of Ecology Central Regional Office, 15 W Yakima Avenue, Sundance Room, Yakima, WA 98902; (509) 575-2490
- Department of Ecology Eastern Regional Office, 4601 North Monroe Street, Room 1-SW-11, Spokane, WA 99205; (509) 329-3400

## Ecology's response to your comments

All of the comments we receive will become part of the official record (Concise Explanatory Statement). The Concise Explanatory Statement is required by the Administrative Procedure Act (RCW 34.05) and is published after the rule is adopted. You will be able to find your name listed in the document with a reference to where, in the document, Ecology responded your comments.

**WSR 09-02-083**

**AGENDA**

**DEPARTMENT OF ECOLOGY**

[ Filed January 7, 2009, 11:44 a.m. ]

Pursuant to RCW 34.05.314, following is the department of ecology's rule agenda for January - June 2009.

If you have any questions please contact Jerry Thielen at (360) 407-7551 or e-mail at [jthi461@ecy.wa.gov](mailto:jthi461@ecy.wa.gov).

**Rule-making Agenda - January - June 2009**

\*The bolded dates indicate filings that have occurred. Shaded rows [Register publication cannot show shaded material.] indicate rules adopted in the past six months.

<b>WAC Chapter</b>	<b>Program</b>	<b>Chapter Title</b>	<b>CR-101 Filing Date</b>	<b>CR-102 Filing Date</b>	<b>CR-103 Filing Date</b>	<b>Program Contact</b>
173-400 and 173-460	AQ	General regulation for air pollution sources (WAC 173-400-110 only) and controls for new sources of toxic air pollutants.	<b>1/18/06</b>	<b>11/19/08</b>	3/1/09	Tom Todd or Linda Witcher
AO # 05-19						
11/05						
173-406 and 173-400	AQ	Acid rain regulation (mercury emissions from coal burning power plants) and general regulation for air pollution sources (WAC 173-400-112 and 173-400-113 only).	<b>3/21/07</b>	On Hold	On Hold	Tom Todd
AO # 07-07						
5/06						
173-441	AQ	Green house gases reporting.	<b>7/23/08</b>	4/22/09	8/20/09	Nancy Pritchett
AO # 08-13						
6/08						
173-422	AQ	Motor vehicle emission inspection.	8/6/08	5/6/09	10/15/09	John Raymond
AO # 08-01						

3/08	173-423	AQ	Low emission vehicles.	9/2/08	10/20/08	1/14/09	Neil Caudill
	AO # 08-16						
8/08	173-700	SEA	Wetland mitigation banking - pilot rule.	7/13/04	3/4/09	7/30/09	Lauren Driscoll or Yolanda Holder
	AO # 04-13						
7/04	173-26-070	SEA	Spokane County shoreline master program.	8/5/08	Winter 2009	Spring 2009	Doug Pineo
	AO # 08-15						
8/08	173-183	SPILLS	Preassessment screening and oil spill compensation schedule regulations.	8/6/08	12/19/08	3/10/09	Harry Chichester
	AO # 08-14						
7/08	173-334 (New)	SWFAP	Children's safe products rule.	5/20/08	Withdrawn 11/12/08		Carol Kraege
	AO # 08-09						
5/08	173-351	SWFAP	Criteria for municipal solid waste landfills.	8/21/07	3/18/09	7/15/09	Kathi Scanlan or Wayne Krafft
	AO # 07-15						
7/07	173-345	SWFAP	Recyclable materials -- Transporter and facility requirements.	11/5/07	11/5/08	2/25/09	Randy Martin or Kathi Scanlan
	AO # 07-16						
10/07	173-303	HWTR	Dangerous waste regulations.	10/19/07	1/21/09	5/22/09	Rob Rieck or Nancy Farman
	AO # 07-12						
7/07	173-360	TCP	Underground storage tank rule (UST) to prevent or reduce leaks from UST systems.	7/23/08	Spring 2009	Fall 2009	Amie Hirsch
	AO # 08-08						
4/08							



173-219	WQ	Reclaimed water use.	11/7/06	8/13/10	12/1/10	Kathleen Emmett or Tim Gaffney
AO # 06-12						
8/06						
173- 539A	WR	Upper Kittitas emergency GW rule.	N/A		<b>Emergency Rule 7/8/08</b>	Tom Tebb
Emergency					<b>Expires 11/5/08</b>	
AO # 08-11						
6/08						
173- 539A	WR	Upper Kittitas emergency GW rule.	N/A		<b>Emergency Rule 11/6/08</b>	Tom Tebb
Emergency					<b>Expires 3/6/09</b>	
AO # 08-11						
6/08						
173-539A	WR	Upper Kittitas GW rule (permanent).	7/8/08	1/7/09	3/7/09	Tom Tebb
Permanent						
AO # 08-12						
6/08						
173-160	WR	Well drilling.	6/3/08	9/30/08	12/19/08	Marsha Beery
AO # 08-10						
5/08						
173-525	WR	Grays Elochoman Instream Resources Protection and Water Management Program WRIA 25.	3/2/05	Summer 2009	Fall 2009/ Winter 2010	Travis Burns
AO # 05-03						
3/05						
173-526	WR	Cowlitz Instream Resources Protection and Water Management Program WRIA 26.	3/2/05	Summer 2009	Fall 2009/ Winter 2010	Travis Burns
AO # 05-04						
3/05						
173-527 and 173-592	WR	Lewis Instream Resources Protection and Water Management Program WRIA 27 and reservation of future public water supply for Clark County ground water reservation.	4/23/08	7/23/08	12/19/08	Travis Burns
AO # 08-02						
4/08						

173-528 and 173-592 AO # 08-03 4/08	WR	Salmon-Washougal Instream Resources Protection and Water Management Program WRIA 28 and reservation of future public water supply for Clark County ground water reservation.	4/23/08	7/23/08	12/19/08	Travis Burns
173-503A AO # 04-01 2/04	WR	Instream flow rule for the Samish Subbasin.	2/15/04	On Hold	On Hold	Sarah Ferguson
173-517 AO # 04-02 3/04	WR	Quilcene-Snow instream resources protection and water management program.	3/22/04	Spring 2009	Fall 2009	Ann Wessel
173-518 AO # 07-17 11/07	WR	Focusing on the Dungeness only: Dungeness instream resources protection and watershed management program.	11/7/07	Spring 2009	Fall 2009	Sarah Ferguson
508-12 and 173-152-050 AO # 08-04 3/08	WR	Administration of surface and ground water codes and <u>WAC 173-152-050</u> Criteria for priority processing of competing applications.	5/15/08	On Hold	On Hold	Brian Walsh

Jerry Thielen  
Rules Coordinator

© Washington State Code Reviser's Office

FYI; This has now been distributed.

Kathy Davis  
360-407-6149

-----Original Message-----

From: Hughes, Sandra (ECY)  
Sent: Wednesday, February 04, 2009 2:02 PM  
Subject: ECOLOGY NEWS RELEASE: Ecology seeks comments on changes to dangerous waste regulations

FOR IMMEDIATE RELEASE - Feb. 4, 2009  
09-032

### Ecology seeks comments on changes to dangerous waste regulations

OLYMPIA - Washington businesses and residents can comment on proposed changes to the state's dangerous waste regulations beginning Feb. 4, 2009.

The Department of Ecology (Ecology) is amending the dangerous waste regulations to be current with the federal hazardous waste program. Ecology is also updating state requirements, including the Biological and Chemical Testing Methods documents.

Another proposal would modify the pre-permit siting criteria for treatment, storage, disposal and recycling facilities. Siting criteria are used to determine where a facility can be located. Recycling facilities that meet special conditions won't be required to follow the siting criteria.

A public hearing will be held by simultaneous video conference on Tuesday, Feb. 24, 2009, from 1 to 4 p.m. The public may participate at any of the following locations:

- Auditorium (Room 0A-32), Department of Ecology, 300 Desmond Dr. NW, Lacey
- Room 2A, Department of Ecology, Northwest Regional Office, 3190 160th Av SE, Bellevue
- Sundance Room , Department of Ecology, Central Regional Office, 15 W Yakima Ave. Yakima
- Room 1-SW-11, Department of Ecology, Eastern Regional Office, 4601 N Monroe St. Spokane

To view the documents related to the proposed changes, go to:  
<http://www.ecy.wa.gov/laws-rules/activity/wac173303.html>

To submit comments on the proposed rules, use the supplied form to send in your comments by U.S. mail, fax or e-mail to: Robert Rieck, Department of Ecology, Hazardous Waste and Toxics Reduction Program, P.O. Box 47600, Olympia, WA 98504-7600; fax, 360-407-6715; or e-mail, [rori461@ecy.wa.gov](mailto:rori461@ecy.wa.gov).

Comments must be received by March 5, 2009 by 5:00 p.m.

###

Media Contacts:

Kathy Davis, media relations, 360-407-6149

Robert Rieck, Hazardous Waste and Toxics Reduction, 360-407-6751

Ecology's Web site: <http://www.ecy.wa.gov>

---

**From:** Rieck, Robert (ECY)  
**Sent:** Wednesday, February 04, 2009 4:39 PM  
**To:** 'DW-RULES@LISTSERV.WA.GOV'  
**Subject:** Proposed amendments to the dangerous waste regulations

You are receiving this message because you are subscribed to the Department of Ecology's Listserv for updates to the Dangerous Waste Regulations.

Proposed amendments to the Dangerous Waste Regulations, chapter 173-303 WAC, are ready for your review and comment at <http://www.ecy.wa.gov/laws-rules/activity/wac173303.html> A Rule Summary lists all draft changes and citations where you will find those changes in the draft rule.

Several federal rules are included in the proposed amendments such as EPA's Manifest Rule and numerous technical corrections and edits. Several state initiated rule changes are being proposed, and Biological and Chemical Testing Methods are being updated. All comments will be taken into consideration before amendments are adopted into the regulation.

Comments on the draft rules and testing methods are due by March 5 to Robert Rieck at [rori461@ecy.wa.gov](mailto:rori461@ecy.wa.gov) or mail to Dept. of Ecology HWTR, attention Robert Rieck, PO Box 47600 Olympia WA 98504-7600.





# ShopTalk

*A publication for dangerous waste managers*

Spring 2009  
Volume 19, No. 1  
Pub No. 09-04-001

## "Environmental Fees" are Not Ecology Fees

When the FBI called Scott Lamb, toxics reduction specialist in Bellevue, he realized it wasn't about some new terrorist threat. In fact, it was a story he had heard before. An auto shop had charged substantial "environmental fees" for work done on the FBI's fleet, and claimed that the Department of Ecology required these fees.

Lamb explained the state does not require "environmental fees." Some repair shops add fees, usually small amounts, to their bills to help with disposal of used oil and other materials. But that is their choice – it is not based on any rule or law of the state.

The only fee the state of Washington requires auto shops to pass on to consumers is a \$1 per tire fee on the sale of new tires. That money goes into a special account to prevent and clean up illegal tire piles.

State and federal law does require auto shops – in fact all businesses – to properly manage any materials and wastes that qualify as hazardous. This includes wastes from petroleum, solvents, acids, poisons, and heavy metals such as lead and mercury. The wastes must be contained, labeled, handled, and disposed of in a way that protects human health and the environment.

Most businesses do a good job and consider the associated costs part of being a good member of the community.



## State Amends Dangerous Waste Rules

Washington is amending Chapter 173-303 WAC, the *Dangerous Waste Regulations* in 2009. The changes make the state's rules consistent with the federal Environmental Protection Agency's hazardous waste program. In particular, the changes align the state rules with the federal Manifest Rule and Universal Waste mercury categories. The amendment also updates the *Biological and Chemical Testing Method* publications for state wastes.

The rule amendments will be adopted in June. To learn more about the amendments go to [www.ecy.wa.gov/laws-rules/activity/wac173303.html](http://www.ecy.wa.gov/laws-rules/activity/wac173303.html). If you have questions about the rule amendment process, call Rob Rieck at (360) 407-6751 or e-mail him at [rori461@ecy.wa.gov](mailto:rori461@ecy.wa.gov).

To receive an automatic notice whenever the dangerous waste rules change, join the electronic list at [listserv.wa.gov/archives/dw-rules.html](mailto:listserv.wa.gov/archives/dw-rules.html).

## Dangerous Waste Workshops Now Online

Are you missing the dangerous waste management workshops previously held around the state? An online tutorial is now available at [www.ecy.wa.gov/programs/hwtr/workshops/](http://www.ecy.wa.gov/programs/hwtr/workshops/).

The tutorial has all the presentations from the workshops – Dangerous Waste 101, Designation, Counting, Rules for Generators, Preparing for an Inspection, Mock Inspection, and Pollution Prevention. It uses the

Sheets for the designation exercises, are available in a separate file.

Anyone who wants to learn the basics of managing dangerous waste can work through the tutorial at their own pace. They can use it directly from the Web site, or download the files. The electronic format means they can learn the basics of waste management without leaving the workplace. The tutorial is available in PDF and Microsoft PowerPoint formats.

For more information about the online workshop, contact Mariann Cook Andrews at (360) 407-6740 or e-mail at [maco461@ecy.wa.gov](mailto:maco461@ecy.wa.gov).

## Governor's Award Skips a Year

The Governor's Award for Sustainable Practices program will not be offered in 2009, another sacrifice due to the budget pressures facing Ecology.


"We know there are facilities out there that are making good progress towards sustainability," said K Seiler, manager of the Hazardous Waste and Toxics Reduction Program. "It's not a lack of good candidates but a lack of state resources -- both dollars and staff levels -- that led to this decision. We hope to offer the award again in 2010."

The award recognizes facilities and organizations that excel in preventing pollution, conserving resources, and furthering Washington's movement towards sustainability. It's been awarded annually since 1991.

For more information, visit the award's Web site at [www.ecy.wa.gov](http://www.ecy.wa.gov).





**Subject:** Department of Ecology Rule-making Activity  
**From:** "Dumar, Laurie (ECY)" <ldum461@ECY.WA.GOV>  
**Reply-To:** Dumar, Laurie (ECY)  
**Date:** Mon, 9 Mar 2009 08:51:43 -0700  
**Content-Type:** multipart/alternative  
**Parts/Attachments:**  [text/plain](#) (157 lines) , [text/html](#) (261 lines)

## **RULE PROPOSAL**

### **Chapter 173-303 WAC Dangerous Waste Regulations**

**Purpose:** The dangerous waste regulations set forth the requirements for determining if solid wastes are dangerous wastes, establish a system for tracking dangerous waste from initial generation to treatment or disposal, and establish requirements for facilities so that all dangerous wastes are managed safely and responsibly in Washington state. The proposed amendments will bring the state regulations current with federal requirements, and will update other requirements including biological and chemical testing methods.

#### **WSR Notice:**

<http://apps.leg.wa.gov/documents/laws/wsr/2009/03/09-03-073.htm>

Ecology web site: <http://www.ecy.wa.gov/laws-rules/activity/wac173303.html>



**From:** Rieck, Robert (ECY)  
**Sent:** Monday, June 08, 2009 11:23 AM  
**To:** Farman, Nancy (ECY)  
**Subject:** Posting to DW - Listserve on revised date of adoption

**To:** DW Listserve  
**Subject:** Update on timeline for adoption of rule amendments  
**From:** Robert Rieck <rori461@ECY.WA.GOV>  
**Date:** Fri, 10 Apr 2009 16:13:08 -0700  
**Content-Type:** text/plain

You are receiving this message because you subscribe to the Dangerous Waste Rules listserv.

Ecology had posted a May 22, 2009 adoption date for the amended dangerous waste rules. Rule adoption has been extended to late June to allow adequate time for Ecology consideration of received public comments.



# **APPENDIX D**

## **Federal Burden Reduction Rule Crosswalk & Rationale**



# Sections of EPA’s Burden Reduction Not Adopted

## Crosswalk

EPA’s Final Rule amendments under the Burden Reduction Initiative, published April 4, 2006 (71 FR 16862), contained 87 specific changes to requirements under the Resource Conservation and Recovery Act. The table below summarizes each of those changes.

Meaning of “Adopted or Not?” column:

“Adopted” = incorporated into rule change; Ecology proposes adopting an equivalent state rule

“Not adopted” = not incorporated into rule change; Ecology does not propose adopting an equivalent state rule and will retain existing rule

“No change needed” = existing Washington State rule already parallels new federal rule

“Not required” = no parallel State rule exists; subject covered under different state rule or regulated by EPA instead of Ecology

EPA Change #	Brief Summary	Adopted or Not?	WAC Citation If Adopted	Reason Code If Not Adopted	LBA/CBA Reasoning
1	Authority for part 260	Not required	N/A	N/A	N/A
2	Add definition of “Performance Track member facility”	Adopted	173-303-040	N/A	Not required for edit only
3	260.31(b)(2) removed	Adopted	173-303-017(5)(b)(ii)(B) removed	N/A	Not required for edit only
	260.31(b)(3) renumbered 260.31(b)(2)	Adopted	173-303-017(5)(b)(ii)(B)	N/A	Not required for edit only
	260.31(b)(4) renumbered 260.31(b)(3)	Adopted	173-303-017(5)(b)(ii)(C)	N/A	Not required for edit only

EPA Change #	Brief Summary	Adopted or Not?	WAC Citation If Adopted	Reason Code If Not Adopted	LBA/CBA Reasoning
	260.31(b)(5) renumbered 260.31(b)(4)	Adopted	173-303-017(5)(b)(ii)(D)	N/A	Not required for edit only
	260.31(b)(6) renumbered 260.31(b)(5)	Adopted	173-303-017(5)(b)(ii)(E)	N/A	Not required for edit only
	260.31(b)(7) renumbered 260.31(b)(6)	Adopted	173-303-017(5)(b)(ii)(F)	N/A	Not required for edit only
	260.31(b)(8) renumbered 260.31(b)(7)	Adopted	173-303-017(5)(b)(ii)(G)	N/A	Not required for edit only
4	Authority for part 261	Not required	N/A	N/A	N/A
5	261.4(a)(9)(iii)(E) amending one-time notice requirements	Not adopted	N/A	"One-time"	Not required to retain existing rule
	261.4(f)(9) amending contents of specified annual reports	Not adopted	N/A	"Substantive"	Not required to retain existing rule
6	Authority for part 264	Not required	N/A	N/A	N/A
7	264.15(b)(4) amending inspection requirements	Not adopted	N/A	"PT"	Not required to retain existing rule
	264.15(b)(5) added	Not adopted	N/A	"PT"	Not required to retain existing rule
8	264.16(a)(4) added	Not adopted	N/A	"OSHA"	Not required to retain existing rule
9	264.52(b) amending contingency plan content requirements	Adopted	173-303-350(2)	N/A	Results in facility cost savings



EPA Change #	Brief Summary	Adopted or Not?	WAC Citation If Adopted	Reason Code If Not Adopted	LBA/CBA Reasoning
10	264.56(i) removed	Not adopted	N/A	"Emergency"	Not required to retain existing rule
	264.56(j) renumbered 264.56(i)	Not required	N/A	N/A	N/A
11	264.73(b) amending record retention timeframes	Not adopted	N/A	"Retention"	Not required to retain existing rule
	264.73(b)(1) amending record retention timeframes	No change needed	N/A	N/A	N/A
	264.73(b)(2) amending record retention timeframes	No change needed	N/A	N/A	N/A
	264.73(b)(6) amending record retention timeframes	Not adopted	N/A	"Retention"	Not required to retain existing rule
	264.73(b)(8) amending record retention timeframes	No change needed	N/A	N/A	N/A
	264.73(b)(10) amending record retention timeframes	No change needed	N/A	N/A	N/A
	264.73(b)(18) added regarding record retention timeframes	Not adopted	N/A	"Retention"	Not required to retain existing rule
	264.73(b)(19) added regarding record retention timeframes	Not required	N/A	N/A	N/A
12	264.98(d) amended regarding detection monitoring	Adopted	173-303-645(9)(d)	N/A	Results in facility cost savings
	264.98(g)(2) amended regarding detection	Adopted	173-303-645(9)(g)(ii)	N/A	Results in facility

EPA Change #	Brief Summary	Adopted or Not?	WAC Citation If Adopted	Reason Code If Not Adopted	LBA/CBA Reasoning
	monitoring				cost savings
	264.98(g)(3) amended regarding detection monitoring	Adopted	173-303-645(9)(g)(iii)	N/A	Results in facility cost savings
13	264.99(f) amended regarding compliance monitoring	Adopted	173-303-645(10)(f)	N/A	Results in facility cost savings
	264.99(g) amended regarding compliance monitoring	Adopted	173-303-645(10)(g)	N/A	Results in facility cost savings
14	264.100(g) amending report submission timelines	Not adopted	N/A	"Frequency"	Not required to retain existing rule
15	264.113(e)(5) amending report submission timelines	Not adopted	N/A	"Frequency"	Not required to retain existing rule
16	264.115 amended regarding engineer qualifications	Not adopted	N/A	"Engineer"	Not required to retain existing rule
17	264.120 amended regarding engineer qualifications	Not adopted	N/A	"Engineer"	Not required to retain existing rule
18	264.143(i) amended regarding engineer qualifications	Not adopted	N/A	"Engineer"	Not required to retain existing rule
19	264.145(i) amended regarding engineer qualifications	Not adopted	N/A	"Engineer"	Not required to retain existing rule
20	264.147(e) amended regarding engineer qualifications	Not adopted	N/A	"Engineer"	Not required to retain existing rule

EPA Change #	Brief Summary	Adopted or Not?	WAC Citation If Adopted	Reason Code If Not Adopted	LBA/CBA Reasoning
21	264.174 amending inspection requirements for PT facilities	Not adopted	N/A	"PT"	Not required to retain existing rule
22	264.191(a) amended regarding engineer qualifications	Not adopted	N/A	"Engineer"	Not required to retain existing rule
	264.191(b)(5)(ii) amended regarding engineer qualifications	Not adopted	N/A	"Engineer"	Not required to retain existing rule
23	264.192(a) amended regarding engineer qualifications	Not adopted	N/A	"Engineer"	Not required to retain existing rule
	264.192(b) amended regarding engineer qualifications	Not adopted	N/A	"Engineer"	Not required to retain existing rule
24	264.193(a)(2) removed because of obsolete language	Adopted	173-303-640(4)(a)(ii) removed	N/A	Not required for edit only
	264.193(a)(3) removed because of obsolete language	Adopted	173-303-640(4)(a)(iii) removed	N/A	Not required for edit only
	264.193(a)(4) removed because of obsolete language	Adopted	173-303-640(4)(a)(iv) removed	N/A	Not required for edit only
	264.193(a)(5) amended to remove obsolete language	Adopted	173-303-640(4)(a)(v) amended	N/A	Not required for edit only
	264.193(a)(5) renumbered 264.193(a)(2)	Adopted	Combined to create new 173-303-640(4)(a)	N/A	Not required for edit only
	264.193(a)(1) amended to include existing tanks	Adopted	173-303-640(4)(a)(i)	N/A	Not required for edit only

EPA Change #	Brief Summary	Adopted or Not?	WAC Citation If Adopted	Reason Code If Not Adopted	LBA/CBA Reasoning
	264.193(h)(2) amended regarding engineer qualifications	Not adopted	N/A	"Engineer"	Not required to retain existing rule
25	264.195(b) amended regarding inspection requirements	No change needed	N/A	N/A	N/A
	264.195(c) renumbered 264.195(g)	No change needed	N/A	N/A	N/A
	264.195(d) renumbered 264.195(h)	No change needed	N/A	N/A	N/A
	New 264.195(c) added	No change needed	N/A	N/A	N/A
	New 264.195(d) added	No change needed	N/A	N/A	N/A
	264.195(e) added	Not adopted	N/A	"PT"	Not required to retain existing rule
	264.195(f) added	No change needed	N/A	N/A	N/A
26	264.196(f) amended regarding engineer qualifications	Not adopted	N/A	"Engineer"	Not required to retain existing rule
	264.196(f) amended regarding record submission	Not adopted	N/A	"Submission"	Not required to retain existing rule
27	264.251(c) amended to remove obsolete language	Adopted	173-303-660(2)(j) amended	N/A	Not required for edit only
28	264.280(b) amended regarding engineer qualifications	Not adopted	N/A	"Engineer"	Not required to retain existing rule

EPA Change #	Brief Summary	Adopted or Not?	WAC Citation If Adopted	Reason Code If Not Adopted	LBA/CBA Reasoning
29	264.314(a) removed because of obsolete language	Adopted	173-303-140(4)(b)(i) amended	N/A	Not required for edit only
	264.314(b) renumbered 264.314(a)	No change needed	N/A	N/A	N/A
	264.314(c) renumbered 264.314(b)	No change needed	N/A	N/A	N/A
	264.314(d) renumbered 264.314(c)	No change needed	N/A	N/A	N/A
	264.314(e) renumbered 264.314(d)	No change needed	N/A	N/A	N/A
	264.314(f) renumbered 264.314(e)	No change needed	N/A	N/A	N/A
	Renumbered 264.314(a) amended removing obsolete language	Adopted	173-303-140(4)(b)(i) amended	N/A	Not required for edit only
	Renumbered 264.314(e) amended removing obsolete language	Adopted	173-303-140(4)(b)(v) amended	N/A	Not required for edit only
30	264.343(a)(2) amended to remove notice requirement	Not adopted	N/A	"Notice"	Not required to retain existing rule
31	264.347(d) amended to change record requirements	Not adopted	N/A	"Retention"	Not required to retain existing rule
32	264.554(c)(2) amended regarding engineer qualifications	Not adopted	N/A	"Engineer"	Not required to retain existing rule
33	264.571(a) amended regarding engineer qualifications	Not adopted	N/A	"Engineer"	Not required to retain existing rule

EPA Change #	Brief Summary	Adopted or Not?	WAC Citation If Adopted	Reason Code If Not Adopted	LBA/CBA Reasoning
	264.571(b) amended regarding engineer qualifications	Not adopted	N/A	"Engineer"	Not required to retain existing rule
	264.571(c) amended regarding engineer qualifications	Not adopted	N/A	"Engineer"	Not required to retain existing rule
34	264.573(a)(4)(ii) amended regarding engineer qualifications	Not adopted	N/A	"Engineer"	Not required to retain existing rule
	264.573(g) amended regarding engineer qualifications	Not adopted	N/A	"Engineer"	Not required to retain existing rule
35	264.574(a) amended regarding engineer qualifications	Not adopted	N/A	"Engineer"	Not required to retain existing rule
36	264.1061(b)(1) removed	Not required	N/A	N/A	N/A
	264.1061(d) removed	Not required	N/A	N/A	N/A
	264.1061(b)(2) renumbered 264.1061(b)(1)	Not required	N/A	N/A	N/A
	264.1061(b)(3) renumbered 264.1061(b)(2)	Not required	N/A	N/A	N/A
37	264.1062(a)(2) removed	Not required	N/A	N/A	N/A
	264.1062(a)(1) renumbered 264.1062(a)	Not required	N/A	N/A	N/A
38	264.1100 amended removing obsolete language	Adopted	Incorporated by reference	N/A	Not required for edit only

EPA Change #	Brief Summary	Adopted or Not?	WAC Citation If Adopted	Reason Code If Not Adopted	LBA/CBA Reasoning
39	264.1101(c)(2) amended removing obsolete language	Adopted	Incorporated by reference	N/A	Not required for edit only
	264.1101(c)(2) amended regarding engineer qualifications	Not adopted	N/A	"Engineer"	Not required to retain existing rule
	264.1101(c)(4) amended inspection requirements for PT facilities	Not adopted	N/A	"PT"	Not required to retain existing rule
40	Authority for part 265	Not required	N/A	N/A	N/A
41	265.15(b)(4) amended inspection requirements for PT facilities	Not adopted	N/A	"PT"	Not required to retain existing rule
	265.15(b)(5) added	Not adopted	N/A	"PT"	Not required to retain existing rule
42	265.16(a)(4) added	Not adopted	N/A	"OSHA"	Not required to retain existing rule
43	265.52(b) amended to add "One Plan" option	Adopted	Incorporated by reference	N/A	Results in facility cost savings
44	265.56(i) removed	Not adopted	N/A	"Emergency"	Not required to retain existing rule
	265.56(i) renumbered 265.56(i)	Not required	N/A	N/A	N/A

EPA Change #	Brief Summary	Adopted or Not?	WAC Citation If Adopted	Reason Code If Not Adopted	LBA/CBA Reasoning
45	265.73(b) amending record retention timeframes	Not adopted	N/A	"Retention"	Not required to retain existing rule
	265.73(b)(1) amending record retention timeframes	No change needed	N/A	N/A	N/A
	265.73(b)(2) amending record retention timeframes	No change needed	N/A	N/A	N/A
	265.73(b)(6) amending record retention timeframes	No change needed	N/A	N/A	N/A
	265.73(b)(7) amending record retention timeframes	No change needed	N/A	N/A	N/A
	265.73(b)(8) amending record retention timeframes	No change needed	N/A	N/A	N/A
	265.73(b)(15) added	No change needed	N/A	N/A	N/A
46	265.90(d)(1) amending report submission requirements	Not adopted	N/A	"Submission"	Not required to retain existing rule
	265.90(d)(3) amending report submission requirements	Not adopted	N/A	"Submission"	Not required to retain existing rule
47	265.93(d)(2) amending report submission requirements	Not adopted	N/A	"Submission"	Not required to retain existing rule



EPA Change #	Brief Summary	Adopted or Not?	WAC Citation If Adopted	Reason Code If Not Adopted	LBA/CBA Reasoning
	265.93(d)(5) amending report submission requirements	Not adopted	N/A	"Submission"	Not required to retain existing rule
48	265.113(e)(5) amending report submission timelines	Not adopted	N/A	"Frequency"	Not required to retain existing rule
49	265.115 amended regarding engineer qualifications	Not adopted	N/A	"Engineer"	Not required to retain existing rule
50	265.120 amended regarding engineer qualifications	Not adopted	N/A	"Engineer"	Not required to retain existing rule
51	265.143(h) amended regarding engineer qualifications	Not adopted	N/A	"Engineer"	Not required to retain existing rule
52	265.145(h) amended regarding engineer qualifications	Not adopted	N/A	"Engineer"	Not required to retain existing rule
53	265.147(e) amended regarding engineer qualifications	Not adopted	N/A	"Engineer"	Not required to retain existing rule
54	265.174 amending inspection requirements for PT facilities	Not adopted	N/A	"PT"	Not required to retain existing rule
55	265.191(a) amended regarding engineer qualifications	Not adopted	N/A	"Engineer"	Not required to retain existing rule
	265.191(b)(5)(ii) amended regarding engineer qualifications	Not adopted	N/A	"Engineer"	Not required to retain existing rule
56	265.192(a) amended regarding engineer qualifications	Not adopted	N/A	"Engineer"	Not required to retain existing rule

EPA Change #	Brief Summary	Adopted or Not?	WAC Citation If Adopted	Reason Code If Not Adopted	LBA/CBA Reasoning
	265.192(b) amended regarding engineer qualifications	Not adopted	N/A	"Engineer"	Not required to retain existing rule
57	265.193(a)(2) removed because of obsolete language	Adopted	Incorporated by reference	N/A	Not required for edit only
	265.193(a)(3) removed because of obsolete language	Adopted	Incorporated by reference	N/A	Not required for edit only
	265.193(a)(4) removed because of obsolete language	Adopted	Incorporated by reference	N/A	Not required for edit only
	265.193(a)(5) renumbered 265.193(a)(2)	Adopted	Incorporated by reference	N/A	Not required for edit only
	265.193(a)(1) amended to include existing tanks	Adopted	Incorporated by reference	N/A	Not required for edit only
	Renumbered 265.193(a)(2) amended to remove obsolete language	Adopted	Incorporated by reference	N/A	Not required for edit only
	265.193(i)(2) amended regarding engineer qualifications	Not adopted	N/A	"Engineer"	Not required to retain existing rule
58	265.195(a) amended to restructure requirements	Adopted	Incorporated by reference	N/A	Not required for edit only
	265.195(b) renumbered 265.195(f)	Adopted	Incorporated by reference	N/A	Not required for edit only
	265.195(c) renumbered 265.195(g)	Adopted	Incorporated by reference	N/A	Not required for edit only

EPA Change #	Brief Summary	Adopted or Not?	WAC Citation If Adopted	Reason Code If Not Adopted	LBA/CBA Reasoning
	New 265.195(b) added	Adopted	Incorporated by reference	N/A	Not required for edit only
	New 265.195(c) added	Not adopted	N/A	"Inspection"	Not required to retain existing rule
	265.195(d) added	Not adopted	N/A	"PT"	Not required to retain existing rule
	265.195(e) added	Adopted	Incorporated by reference	N/A	
59	265.196(f) amended regarding engineer qualifications	Not adopted	N/A	"Engineer"	Not required to retain existing rule
	265.196(f) amended regarding record submission	Not adopted	N/A	"Submission"	Not required to retain existing rule
60	265.201(c) amended to restructure requirements	Adopted	Incorporated by reference	N/A	Not required for edit only
	265.201(d) renumbered 265.201(f)	Adopted	Incorporated by reference	N/A	Not required for edit only
	265.201(e) renumbered 265.201(g)	Adopted	Incorporated by reference	N/A	Not required for edit only
	256.201 (f) renumbered 265.201(h)	Adopted	Incorporated by reference	N/A	Not required for edit only
	New 256.201(d) added	Not adopted	N/A	"Inspection"	Not required to retain existing rule
	New 256.201(e) added	Not adopted	N/A	"PT"	Not required to

EPA Change #	Brief Summary	Adopted or Not?	WAC Citation If Adopted	Reason Code If Not Adopted	LBA/CBA Reasoning
					retain existing rule
61	265.221(a) amended removing obsolete language	Adopted	Incorporated by reference	N/A	Not required for edit only
62	§265.223 renumbered §265.224	Not required	N/A	N/A	Not required for edit only
	265.224(a) amended regarding report submission requirements	Not adopted	N/A	"Submission"	Not required to retain existing rule
63	265.259(a) amended regarding report submission requirements	Not adopted	N/A	"Submission"	Not required to retain existing rule
64	265.280(e) amended regarding engineer qualifications	Not adopted	N/A	"Engineer"	Not required to retain existing rule
65	265.301(a) amended removing obsolete language	Adopted	Incorporated by reference	N/A	Not required for edit only
66	265.303(a) amended regarding report submission requirements	Not adopted	N/A	"Submission"	Not required to retain existing rule
67	265.314(a) removed because of obsolete language	Adopted	Incorporated by reference	N/A	Not required for edit only
	265.314(b) renumbered 265.314(a)	Adopted	Incorporated by reference	N/A	Not required for edit only
	265.314(c) renumbered 265.314(b)	Adopted	Incorporated by reference	N/A	Not required for edit only

EPA Change #	Brief Summary	Adopted or Not?	WAC Citation If Adopted	Reason Code If Not Adopted	LBA/CBA Reasoning
	265.314(d) renumbered 265.314(c)	Adopted	Incorporated by reference	N/A	Not required for edit only
	265.314(e) renumbered 265.314(d)	Adopted	Incorporated by reference	N/A	Not required for edit only
	265.314(f) renumbered 265.314(e)	Adopted	Incorporated by reference	N/A	Not required for edit only
	265.314(g) renumbered 265.314(f)	Adopted	Incorporated by reference	N/A	Not required for edit only
	Renumbered 265.314(a) amended removing obsolete language	Adopted	Incorporated by reference	N/A	Not required for edit only
	Renumbered 265.314(f) amended removing obsolete language	Adopted	Incorporated by reference	N/A	Not required for edit only
68	265.441(a) amended regarding engineer qualifications	Not adopted	N/A	"Engineer"	Not required to retain existing rule
	265.441(b) amended regarding engineer qualifications	Not adopted	N/A	"Engineer"	Not required to retain existing rule
	265.441(c) amended regarding engineer qualifications	Not adopted	N/A	"Engineer"	Not required to retain existing rule
69	265.443(a)(4)(ii) amended regarding engineer qualifications	Not adopted	N/A	"Engineer"	Not required to retain existing rule
	265.443(g) amended regarding engineer qualifications	Not adopted	N/A	"Engineer"	Not required to retain existing rule

EPA Change #	Brief Summary	Adopted or Not?	WAC Citation If Adopted	Reason Code If Not Adopted	LBA/CBA Reasoning
70	265.444(a) amended regarding engineer qualifications	Not adopted	N/A	"Engineer"	Not required to retain existing rule
71	265.1061(b)(1) removed	Not adopted	N/A	"Notice"	Not required to retain existing rule
	265.1061(d) removed	Not adopted	N/A	"Notice"	Not required to retain existing rule
	265.1061(b)(2) renumbered 265.1061(b)(1)	Not required	N/A	N/A	N/A
	265.1061(b)(3) renumbered 265.1061(b)(2)	Not required	N/A	N/A	N/A
72	265.1062(a)(2) removed	Not adopted	N/A	"Notice"	Not required to retain existing rule
	265.1062(a)(1) renumbered 265.1062(a)	Not required	N/A	N/A	N/A
73	265.1100 amended removing obsolete language	Adopted	Incorporated by reference	N/A	Not required for edit only
74	265.1101(c)(2) amended removing obsolete language	Adopted	Incorporated by reference	N/A	Not required for edit only
	265.1101(c)(2) amended regarding engineer qualifications	Not adopted	N/A	"Engineer"	Not required to retain existing rule
	265.1101(c)(4) amended inspection requirements for PT facilities	Not adopted	N/A	"PT"	Not required to retain existing rule
75	Authority for part 266	Not required	N/A	N/A	N/A

EPA Change #	Brief Summary	Adopted or Not?	WAC Citation If Adopted	Reason Code If Not Adopted	LBA/CBA Reasoning
76	266.102(e)(10) amended regarding record retention requirements	Not required	N/A	N/A	N/A
77	266.103(d) amended regarding record submission requirements	Not required	N/A	N/A	N/A
	266.103(k) amended regarding record retention requirements	Not required	N/A	N/A	N/A
78	Authority for part 268	Not required	N/A	N/A	N/A
79	268.7(a)(1) amending requirements related to waste testing	Not adopted	N/A	"LDR"	Not required to retain existing rule
	268.7(a)(2) amending requirements related to notification	Not adopted	N/A	"Notice"	Not required to retain existing rule
	268.7(b)(6) amending requirements related to notification	Not adopted	N/A	"One-time"	Not required to retain existing rule
80	268.9(a) amended regarding waste codes	Not adopted	N/A	"One-time"	Not required to retain existing rule
	268.9(d) amended regarding record submission requirements	Not adopted	N/A	"One-time"	Not required to retain existing rule
81	Authority for part 270	Not required	N/A	N/A	N/A
82	270.14(a) amended regarding engineer qualifications	Not adopted	N/A	"Engineer"	Not required to retain existing rule
83	270.16(a) amended regarding engineer qualifications	Not adopted	N/A	"Engineer"	Not required to retain existing rule

EPA Change #	Brief Summary	Adopted or Not?	WAC Citation If Adopted	Reason Code If Not Adopted	LBA/CBA Reasoning
84	270.26(c)(15) amended regarding engineer qualifications	Not adopted	N/A	"Engineer"	Not required to retain existing rule
85	270.42(l) added	Not adopted	N/A	"PT"	Not required to retain existing rule
	§ 270.42 Appendix I entry O added	No change needed	N/A	N/A	N/A
86	Authority for part 271	Not required	N/A	N/A	N/A
87	271.1(j) amended by adding to Table 1	No change needed	N/A	N/A	N/A

## Explanations

Reasons are given below for the federal rules Ecology declined to adopt. "Reason Codes" are taken from the Burden Reduction Crosswalk table."

Reason Code	Explanation
Emergency	Ecology does not believe that it is overly burdensome to require facilities to notify Ecology that they have returned to compliance. Facilities are more careful to ensure a situation has actually been remedied if it must report that the problem has been fixed.
Engineer	Ecology did not concur with EPA's decision to replace requirements for engineering certification by an "independent qualified registered professional engineer" with a "qualified professional engineer." Ecology is concerned that there may be a trust issue associated with company in-house PEs when historical previous work is inadequate. EPA's position is that allowing a company in-house PE to certify engineering documents as complete will provide significant financial relief. Ecology does not believe this to be the case. In fact under ordinary situations, the company is required to hire consultants, who are PEs, to perform engineering document work plan and reports. The cost of an independent PE certification under ordinary circumstances is small compared to the consulting services paid to perform engineering document, work plan,



Reason Code	Explanation
	<p>data analysis and report development. Note that facilities are still permitted to use qualified in-house engineers who may not be independent professional engineers in performing (or assisting to perform) the analyses that underlie these certifications and facilities can potentially lower their costs by using this specific flexibility.</p> <p>Independent review and certification further reduces or minimizes the potential for conflict of interest between the certifying independent qualified registered professional engineer and the RCRA regulated company. An independent qualified registered professional engineer, after certifying the engineering work, will not continue to be a full-time employee of the RCRA regulated company full-time, versus the in-house professional engineer who continues to be employed by the RCRA regulated company. Therefore, the independent qualified registered professional engineer will not have potential internal pressures to certify an inadequate engineering document with negative long term consequences if such erroneous certification is not made. Even though the independent professional engineer is hired and paid by the RCRA regulated company, there is less potential for the company management to force certification of inadequate work by an independent qualified registered professional engineer compared to the potential pressures by the company on an in-house professional engineer. Ecology also believes that the public would have reduced confidence in the accuracy and meaning of the engineering review and certification if it were conducted by an employee of the facility. They may also more likely suspect a conflict of interest and possibly demand a more rigorous review by state agencies (especially during RCRA permit decision public comment periods).</p> <p>EPA stated that the terms “registered” and “professional” are redundant and therefore both terms are not necessary. Ecology disagrees and believes that use of both terms clarifies the intent and interpretation of the requirements for the certifying engineer. Ecology also believes this will remove potential misinterpretations or confusion by some parts of the regulated community that a license or "registration" is required by the certifying independent qualified registered professional engineer.</p>
Frequency	<p>Ecology does not support amending rules to allow facilities to submit reports less frequently. The submittal of a semi-annual report provides Ecology with the opportunity to address and correct the facility inadequacies in the program before additional sampling or cleanup work is conducted.</p>
Inspection	<p>Ecology does not agree with reducing inspection frequencies. Fewer inspections would unnecessarily increase the risk of waste being stored in excess of the allowed time and the risk of undetected spills or leaks and could result in increased</p>

Reason Code	Explanation
	<p>releases of dangerous waste. Ecology does not believe that regular inspections are an onerous and burdensome issue for facilities. Frequent inspections are a proactive way to address and prevent problems.</p>
LDR	<p>Ecology did not support EPA's elimination of this requirement. In our experience, the TSDs in the hazardous waste management industry often provide this information to the generators that they are providing service to. These generators are, in essence, already "relieved" of this burden by the TSD. In addition, the generator knows the underlying constituents in the waste. It is extremely difficult and expensive to discover all of the underlying constituents in a waste stream via laboratory analysis. No one does laboratory analysis to determine all the underlying constituents in the waste because of this expense. It is also our experience that in cases where hazardous wastes become secondary materials which may be "used in a manner constituting disposal" the generators often have much better knowledge of RCRA requirements than the subsequent recipients of the secondary materials (for example, fertilizer manufacturers). There is generally less incentive for LDR requirements to stay with the hazardous waste in this reuse scenario.</p> <p>Generator LDR recordkeeping requirements are extremely important to retain. The existing requirement supports the need for generators to obtain and document their acceptable knowledge of a waste stream and take responsibility for knowing what is in their waste that they send for storage or treatment. It also helps to ensure safe storage by knowing what they have at the time it is generated. It also promotes the movement of LDR waste through to treatment and disposal, rather than long-term storage, by requiring generators to know what they have and the treatment technology needed. Viable treatment options can more easily be determined when records are maintained. At Hanford, this requirement has been instrumental in encouraging Department of Energy (DOE) to have better information before they send waste for treatment, such as; 1) what waste they are generating, 2) how they are storing it, and 3) the waste profile. Also applicable at Hanford is the Federal Facility Compliance Act (FFCA), which dictates requirements for management of mixed waste, many of which include recordkeeping and reporting requirements that support LDRs. Section 268.7(a) fits with the FFCA requirements to support generator recordkeeping requirements.</p>
Notice	<p>Ecology does not support the elimination of the notice requirement and actually urged EPA to make notices more available. Receiving these notices provides Ecology the opportunity to more closely track activities that may cause dangerous chemicals to be released to the environment. Notifications left on-site tend to disappear, and without receiving these notices, Ecology would not be aware of dangerous waste activities that have occurred at these sites.</p>

Reason Code	Explanation
One-time	<p>Instead of eliminating these notifications, Ecology urged EPA to make them more available and useful to the states and public by storing them in searchable databases on the Internet. When reports are retrievable by activity, they are useful for workload planning, targeting inspections, creating stakeholder lists, and finding wastes in commerce.</p>
OSHA	<p>Ecology does not support replacing the site-specific RCRA training requirements with the more general OSHA requirements. We will not be able to enforce OSHA requirements and they do not provide the same level of protection. As an example, at Hanford, the Department of Energy (DOE) is “self-regulating” for OSHA requirements. Ecology’s only authority for regulating training requirements is through RCRA. We have a history of problems at Hanford with DOE/contractors following the RCRA training requirements.</p> <p>We are increasing attention on training at our commercial TSD facilities. In fact, we have been requiring more training because of noncompliance at the facilities. Lack of training seems to be a major contributing factor to noncompliance. We note that the supporting document, "RCRA-OSHA Training Requirements Overlap", identifies several key RCRA requirements as “more stringent” than OSHA standards. Specifically, 264.16(a)(3)(i), “the scope of training on standard operating procedures” and 264.16(a)(3)(ii) “the scope of training on waste feed cutoff systems.” In addition, OSHA standards apparently do not cover response to ground-water contamination incidents, 264.16(a)(3)(v) and shutdown of operations, 264.16(a)(3)(vi). These provisions are important for the protection of human health and the environment.</p>
PT	<p>Ecology believes that reducing inspection frequencies for Performance Track facilities may increase threats to human health and the environment. Ecology does not believe that regular inspections are an onerous and burdensome issue for facilities. Frequent inspections are a proactive way to address and prevent problems. In addition, EPA has discontinued Performance Track and is closing out the program. Previous participants will no longer be allowed to identify themselves as “members” and the burden reduction rule changes will no longer be applicable to any facility.</p>
Retention	<p>Ecology believes that information the facility would need to identify the source and identity of contamination at the site needs to be kept until closure. For example, to monitor changes in groundwater monitoring parameters over time, facilities need to keep records on soil and groundwater investigations and monitoring results for the life of the facility. Our experience at Hanford indicates that waste analysis information is valuable as long as the waste remains on-site potentially subject to subsequent management needs. Furthermore, our state RCRA Corrective Action rules require, “Unless otherwise required by the department, records shall be retained for at least ten years from the date of completion of compliance</p>

Reason Code	Explanation
	monitoring or as long as any institutional controls (including land use restrictions) remain in effect, whichever is longer.”
Submission	<p>Ecology disagreed with EPA’s justification/explanation that the report or record “can be kept onsite where it will be available for regulators to inspect” and that “there is no need to submit plan to Regional Administrator.” Ecology believes the proposed changes regarding interim status groundwater monitoring reporting requirements (<i>i.e.</i>, 265.90(d)(1), 265.90(d)(3), 265.93(d)(2), and 265.93(d)(5)) rely on regulators inspecting facility records. To delete and/or reduce groundwater reporting and recordkeeping requirements places a tremendous additional burden on the Washington State Department of Ecology and reduces the state’s ability to ensure environmental protection.</p> <p>Reports submitted for “notification” purposes serve to provide a regulatory notice and status. This notice and status also serve to reduce an administrative burden on Ecology. If the notices and statuses were not provided, it would be necessary for Ecology to access the databases and generate reports and/or visit the site to review the reports. Failure to submit response action plans to Ecology also reduces the state’s ability to ensure environmental protection. A release from a land-based unit is a significant noncompliance and could pose serious impacts to people and the environment. Ecology views leaks from land-based units to be unusual circumstances that require decisive action. It is important for the facility to have a clear plan in advance to respond to releases. Because of the importance of controlling these releases, it is appropriate that response action plans be submitted to Ecology for review.</p>
Substantive	EPA’s burden reduction rulemaking did not change the substantive requirements of this section. However, Ecology previously declined to adopt these requirements when the requirements were originally proposed.

# **Appendix E**

**CR 102 Proposed Rule Making  
filed January 15, 2009**





# PROPOSED RULE MAKING

## CR-102 (January 2009)

(Implements RCW 34.05.320)

Do NOT use for expedited rule making

Agency: Department of Ecology AO# 07-12

- |  |   |
|--|---|
| <input checked="" type="checkbox"/> Preproposal Statement of Inquiry was filed as WSR 07-21-110 _____ ; or | <input checked="" type="checkbox"/> Original Notice       |
| <input type="checkbox"/> Expedited Rule Making--Proposed notice was filed as WSR _____ ; or                | <input type="checkbox"/> Supplemental Notice to WSR _____ |
| <input type="checkbox"/> Proposal is exempt under RCW 34.05.310(4).  | <input type="checkbox"/> Continuance of WSR _____         |

Title of rule and other identifying information: (Describe Subject) Dangerous Waste Regulations, chapter 173-303 WAC

Hearing location(s): Video conference hearings will be held Simultaneously at the following locations: See attached.

Date: February 24, 2009 Time: 1 pm

Date of intended adoption: May 22, 2009  
(Note: This is NOT the effective date)

**Submit written comments to:**

Name: Robert Rieck  
Address: PO Box 47600  
Olympia, WA. 98504-7600  
e-mail [rori461@ecy.wa.gov](mailto:rori461@ecy.wa.gov)  
fax (360-)407-6715 by (date) March 5, 2009

**Assistance for persons with disabilities:** Contact

Marnie Black by February 16, 2009

TTY (800)833-8973 or (360)407-6759

**Purpose of the proposal and its anticipated effects, including any changes in existing rules:** The Dangerous Waste Regulations set forth the requirements for determining if solid wastes are dangerous wastes, establish a system for tracking dangerous waste from initial generation to treatment or disposal, and establish requirements for facilities so that all dangerous wastes are managed safely and responsibly in Washington state. The proposed amendments will bring the state regulations current with federal requirements, and will update other requirements including Biological and Chemical Testing Methods.

Reasons supporting proposal: See attached

Statutory authority for adoption: chapters 70.105, 70.105D, and 15.54 RCW

Statute being implemented: chapter 70.105 RCW

**Is rule necessary because of a:**

- |                         |   |  |
|-------------------------|---|--|
| Federal Law?            | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            |
| Federal Court Decision? | <input type="checkbox"/> Yes            | <input checked="" type="checkbox"/> No |
| State Court Decision?   | <input type="checkbox"/> Yes            | <input checked="" type="checkbox"/> No |
- If yes, CITATION:  
40 CFR Parts 260 through 279

DATE  
1/13/09

NAME (type or print)  
Polly Zehm

SIGNATURE

TITLE Assistant Director

**CODE REVISER USE ONLY**

OFFICE OF THE CODE REVISER  
STATE OF WASHINGTON  
FILED

DATE: January 15, 2009

TIME: 10:48 AM

WSR 09-03-073

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

**Name of proponent:** (person or organization) Department of Ecology

- Private  
 Public  
 Governmental

**Name of agency personnel responsible for:**

	Name	Office Location	Phone
Drafting.....	Robert Rieck	Lacey, WA	(360) 407-6751
Implementation....	Darin Rice	Lacey, WA	(360) 407-6702
Enforcement.....	Darin Rice	Lacey, WA	(360) 407-6702

**Has a small business economic impact statement been prepared under chapter 19.85 RCW?**

Yes. Attach copy of small business economic impact statement.

A copy of the statement may be obtained by contacting:

Name: Robert Rieck  
Address: PO Box 47600 Olympia, WA. 98504-7600

phone (360) 407-6751  
fax (360) 407-6715  
e-mail rori461@ecy.wa.gov

**Is a cost-benefit analysis required under RCW 34.05.328?**

Yes A preliminary cost-benefit analysis may be obtained by contacting:

Name: Robert Rieck  
Address: PO Box 47600 Olympia, WA. 98504-6700

phone (360-) 407-6751  
fax (360) 407-6715  
e-mail rori461@ecy.wa.gov

No: Please explain:



Attachment – Hearings

Department of Ecology  
300 Desmond Drive SE  
Lacey, WA 98503  
Phone: (360) 407-6000  
Auditorium ROA-32

Department of Ecology Northwest Regional Office  
3190 160th Avenue SE  
Bellevue, WA 98008  
Phone: (425) 649-7000  
Room 2A

Department of Ecology Central Regional Office,  
15 W Yakima Avenue  
Yakima, WA 98902  
Phone: (509) 575-2490  
Sundance Room

Department of Ecology Eastern Regional Office  
4601 North Monroe Street  
Spokane, WA 99205  
Phone: (509) 329-3400  
Room 1-SW-11

## **Proposed Amendments related to Federal rules:**

Ecology is proposing to adopt several federal hazardous waste rules into the state Dangerous Waste Regulations. Several are proposed with language identical to the federal rule. Others are proposed with differences between the state and federal version. The rule titles and Federal Register reference of the federal hazardous waste rule proposed for adoption are listed below. The text of the summary paragraphs that appeared in the Federal Register was included in Ecology's public draft that was available for review fall of 2007. However, due to space constraints, only the titles and dates of the federal rules appear below. More detailed information appears on Ecology's website with the text of the proposed rule or may be obtained from the department.

Federal hazardous waste rules proposed for adoption essentially unchanged from the federal version include the following: **1)** National Emission Standards for Hazardous Air Pollutants: Surface Coating of Automobiles and Light-Duty Trucks April 26, 2004 - 69 FR 22601 **2)** 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 **3)** 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 **4)** 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 **5)** National Emission Standards for Hazardous Air Pollutants: Final Standards for Hazardous Air Pollutants for Hazardous Waste Combustors; Amendments April 8, 2008 - 73 FR 18970 **6)** Hazardous Waste and Used Oil; Corrections to Errors in the Code of Federal Regulations July 14, 2006 - 70 FR 40253 **7)** Hazardous Waste Management System; Modification of the Hazardous Waste Program; Mercury-containing Equipment August 5, 2005 - 70 FR 45507 **8)** Hazardous Waste Management System; Modification of the Hazardous Waste Manifest System; Correction June 16, 2005 - 70 FR 35034 **9)** Waste Management System; Testing and Monitoring Activities; Final Rule: Methods Innovation Rule and SW-846 Final Update IIIB - August 1, 2005 70 FR 146

The following federal regulations that are proposed for adoption either contain differences from the federal version or have extra explanatory information. **10)** Hazardous Waste Management System; Identification and Listing of Hazardous Waste; Recycled Used Oil Management Standards – July 30, 2003 – 68 FR 44659 **11)** Hazardous Waste Management System; Modification of the Hazardous Waste Manifest System March 4, 2005 – 70 FR 10775 **12)** Waste Management System; Testing and Monitoring Activities; Final Rule: Methods Innovation Rule and SW-846 Final Update IIIB June 14, 2005 - 70 FR 34537 **13)** Resource Conservation and Recovery Act Burden Reduction Initiative April 4, 2006 - 70 FR 16861

## **Other proposed amendments not related to federal rules:**

Ecology is proposing other amendments not related to the federal rules listed above. Several editorial and technical corrections and clarifications are being made including correcting citations, improved definitions, clarify that counting exclusion applies to permit by rule (PBR), updating of several test methods, minor changes to financial assurance rules, updates for consistency with federal regulations and several other minor technical corrections. Several of the more significant changes are described below. More detailed explanations are available from Ecology.

Changes are also being made to update the publications Chemical Test Methods for Designating Dangerous Waste and Biological Test Methods. The draft changes are available for review in a separate document on Ecology's website with the other rule information.

**WAC 173-303-100(5)(b)(i).** Two additional toxicity data sources are proposed to be added for state criteria designation (ECOTOX and HSDB). This will make information on aquatic toxicity more readily available and at no cost to the generator.

**WAC 173-303-104(5) and 108(5).** The new federal manifest rule does not allow the use of lab pack codes, so this change stops the use of Lab Pack Codes on manifests.

**WAC 173-303-110(3)(b) Biological Testing Methods 80-12.** The document was updated to make it clearer and to remove outdated information. The test procedure for determining percent solids was eliminated since the percent moisture value is not used by this method.

**WAC 173-303-110(3)(c) Chemical Testing Methods Update.** Chemical Test Methods was revised to make it easier to understand and use. Language was added to clarify that analytical test results must be reported on a dry weight basis. In addition, ecology added an additional method that can be used to meet state-only persistence designation requirements. The document is being split into sections on waste designation and on analytical methods.

**WAC 173-303-282(2)(b)(v), -282(3)(p) and -902(2)(c)(i)-(vi).** This amendment would change permit pre-application requirements pertaining to siting criteria. Recycling facilities that meet several important limitations would be exempt from siting criteria and from the need to enter into citizen/proponent negotiations. Also, certain existing TSDs seeking a significant expansion would be exempt from citizen/proponent negotiations. These limitations for recycling facilities provide environmental safeguards:

- Recycling is done in a process exempt from dangerous waste permitting.
- Waste storage is used strictly to support the exempt recycling.
- Waste storage is in tanks, containers, or containment building.
- Waste storage is indoors.

Finally, the rule change clarifies that a 25% facility expansion means an increase in the waste “storage design capacity” as described in the facility’s original Part A permit application or the previously approved significant expansion. The current regulation refers to “process design capacity” instead of “storage design capacity.”

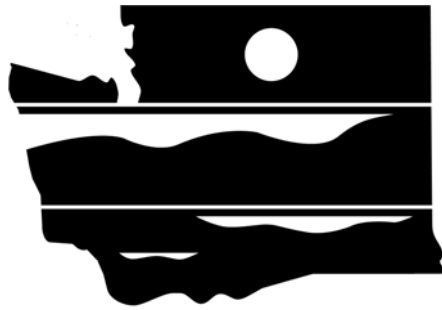
**WAC 173-303-506(3)(vii).** These corrections will make CFC recyclers responsible for closure and financial assurance, consistent with other recyclers. CFC Recyclers had inadvertently been left out of closure and financial assurance requirements, in effect since 2005.

**WAC 173-303-620(4)(c).** This rule amendment allows a new optional financial assurance instrument for used oil processors and recyclers, termed an “assigned security deposit”. This new option makes it easier for these facilities to obtain financial assurance, ensuring that the public is protected from paying spill clean-up costs.

# **Appendix F**

## **Copies of All Comments**





DEPARTMENT OF  
**ECOLOGY**  
State of Washington

**APPENDIX F ~ COMMENT LETTERS**

~

**CONCISE EXPLANATORY STATEMENT**

**and**

**RESPONSIVENESS SUMMARY**

**For the Adoption of the June 30, 2009 amendments to  
Chapter 173-303 WAC, Dangerous Waste Regulations**

Publication: 09-04-013 a.

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## APPENDIX F ~ COMMENT LETTERS

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CONCISE EXPLANATORY STATEMENT  
AND  
RESPONSIVENESS SUMMARY

Washington State Department of Ecology  
Hazardous Waste and Toxics Reduction Program

June 30, 2009

Publication: 09-04-013 a

*If you require this publication in an alternate format, please contact Hazardous waste & Toxics Reduction Program at 360-407-6700, or TTY (for the speech or hearing impaired) 711 or 800-833-6341.*

**RULE-MAKING PROPOSAL COMMENT FORM**

***Dangerous Waste Regulations, Chapter 173-303 WAC***

Filed on January 15, 2009

First and Last Name: Harold Cashman

Organization or Affiliation: Whatcom Environmental Services Inc.

Address: 228 East Champion Street #101

City ST Zip: Bellingham, WA 98225

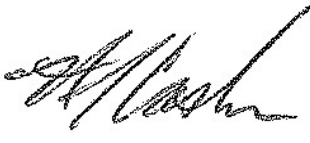
Indicate if your comment is on the federal or state requirements:  Federal  State

Section No. 173-303-071 Page No. 25 Citation No. -071(3)(aa)

Please state your comment, question, or recommendation:  
Allow exclusion of leather products from WAC 173-303 which fail the Dangerous Waste thresholds for trivalent chromium and are not contaminated by the user.

Explain your concern:  
New leather products are treated with substances containing trivalent chromium and may contain levels of trivalent chromium, prior to use, which exceed the Dangerous Waste threshold in WAC 173-303-090. Currently, the waste leather from the manufacturing process is exempt under WAC 173-303-071(3)(aa) but the leather products are not. Leather products (especially gloves and work boots) are ubiquitously used by households and businesses for personal protection. The current rules would require that the user manage discarded leather products as a dangerous waste if the material contains chromium above the Dangerous Waste threshold that is solely a result of the leather manufacturing process,

Tell us how your recommendation will improve the proposed rule amendments:  
By excluding these materials from the Dangerous Waste regulations, WDOE could reduce the regulatory burden of management of leather products as Dangerous Waste. In addition, an exclusion for leather products would be consistent with the exclusion of the same leather materials when they are discarded by the leather manufacturer.

Signature: 

Date: 3/4/09



**RULE-MAKING PROPOSAL COMMENT FORM**

***Dangerous Waste Regulations, Chapter 173-303 WAC***

Filed on January 15, 2009

First and Last Name: Harold Cashman

Organization or Affiliation: Whatcom Environmental Services Inc.

Address: 228 East Champion Street #101

City ST Zip: Bellingham, WA 98225


Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. 173-303-110(3)(c) Page No. 73-74 Citation No. 110(3)(c)

Please state your comment, question, or recommendation:  
The date for Publication #97-407 should be changed from February 2008 to January 2009

Explain your concern:  
Incorrect reference for Publication Date

Tell us how your recommendation will improve the proposed rule amendments:  
Correction will avoid confusion for regulated community

Signature:  Date: 3/4/09

## RULE-MAKING PROPOSAL COMMENT FORM

### ***Dangerous Waste Regulations, Chapter 173-303 WAC***

Filed on January 15, 2009

First and Last Name: Harold Cashman

Organization or Affiliation: Whatcom Environmental Services Inc.

Address: 228 East Champion Street #101

City ST Zip: Bellingham, WA 98225

Indicate if your comment is on the federal or state requirements:



Federal



State

Section No. 173-303 Page No. \_\_\_\_\_ Citation No. \_\_\_\_\_

Please state your comment, question, or recommendation:

The 40 CFR Parts 260, 261, and 270 Revisions to the Definition of Solid Waste; Final Rule published on October 30, 2008 should be incorporated into the Proposed Amendments to the Dangerous Waste Regulations.

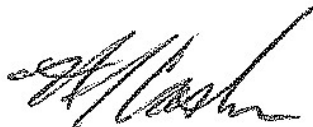
Explain your concern:

The new Federal Definition of Solid Waste should be incorporated and referenced in the Proposed Amendments to the Dangerous Waste Regulations during this revision. The new Federal Definition of Solid Waste excludes from regulation certain hazardous secondary materials which are reclaimed.

Tell us how your recommendation will improve the proposed rule amendments:

The Federal Revisions to the Definition of Solid Waste were undertaken to encourage safe and environmentally sound recycling of hazardous secondary materials. By excluding these materials from the Definition of Solid Waste, WDOE could encourage safe and beneficial recycling while reducing the regulatory burden of management as dangerous waste.

Signature:



Date: 3/4/09

### RULE-MAKING PROPOSAL COMMENT FORM

#### ***Dangerous Waste Regulations, Chapter 173-303 WAC***

Filed on January 15, 2009

First and Last Name: Beth Fifield Hodgson

Organization or Affiliation: Spring Environmental, Inc.

Address: 1011 N. Cedar Street

City ST Zip: Spokane, WA 99201

Indicate if your comment is on the federal or state requirements:

Federal

State

Section No. 173-303-380 Page No. 131 Citation No. \_\_\_\_\_

Please state your comment, question, or recommendation:

I have two concerns with the modifications to Table 1:

1) The UOM table already includes *Pounds, Short tons* and *Kilograms* up above in lines 7, 12, and 14.

Please eliminate the redundancy.

2) What is the basis of the term *Tons*? Is this metric tons (e.g. 2300 lb/tonne) or short tons (2000 lb/ton)? If it supposed to be metric tons than perhaps you could use the nomenclature of "Tonne" and indicate 2300 lbs similar to what was done above for Short tons (e.g. "Tonnes (2300 lbs)"). If it is supposed to be short tons, then clarify the conversion for those of us who are familiar with multiple units of tons (e.g. "Tons (2000 lb/ton)").

Explain your concern:

Adding *Pounds, Short tons* and *Kilograms* made this table match the table in Appendix I of 40 CFR 264 but it is redundant. Regulations are extensive enough without having to try to determine if there are differences between repetitive information.

Tell us how your recommendation will improve the proposed rule amendments:

Eliminate the double listing for *Pounds, Short tons* and *Kilograms* and clarify the UOM *Tons*.

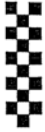
Signature:

*Thanks for your time*

Beth Fifield Hodgson

Date:

6 February 2009



*Completed 4/3/09*

**RULE-MAKING PROPOSAL COMMENT FORM**

***Dangerous Waste Regulations, Chapter 173-303 WAC***

Filed on January 15, 2009

First and Last Name: Beth Fifield Hodgson

Organization or Affiliation: Spring Environmental, Inc.

Address: 1011 N. Cedar Street

City ST Zip: Spokane, WA 99201

Indicate if your comment is on the federal or state requirements:

Federal  
State

Section No. 173-303-160 Page No. 88 Citation No. \_\_\_\_\_

Please state your comment, question, or recommendation:

**Explain your concern:**

Determining whether a container is empty by visual observations or yard stick is easier than having to locate a scale and I am concerned that the change in approach won't be implemented at regulated facilities because it's simply cumbersome. Furthermore the result of this modification is to decrease the amount of material in an *empty* container.

Tell us how your recommendation will improve the proposed rule amendments:

Return the language to the original language.

Signature:

*Thank you,*  
Beth Fifield Hodgson

Date:

6 January 2009

**RULE-MAKING PROPOSAL COMMENT FORM**

***Dangerous Waste Regulations, Chapter 173-303 WAC***

**Filed on January 15, 2009**

**First and Last Name:** L. A. Huffman

**Organization or Affiliation:** Department of Energy, Office of River Protection

**Address:** PO Box 450, MSIN H6-60

**City ST Zip:** Richland, WA 99352

**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** WAC 173-303-040      **Page No.** 8      **Citation No.** Definition of "Closure"

***Please state your comment, question, or recommendation:***

Revise this definition to read: "Closure" means the requirements applied by this chapter to certain generators and transporters, and to recycling, used oil, and TSD facilities, to ensure that such facilities are secured in an acceptable manner (refer to post-closure).

***Explain your concern:***

The proposed definition is very broad and may result in application of clean closure requirements, as applicable under WAC 173-303 and any other federal, state, or local laws, to any dangerous waste management unit or recycling unit. The use of the word "and" between the two bullets proposed makes both mandatory in all cases. This conflicts with provisions in WAC 173-303 allowing some types of units to close without "cleaning up or decontaminating the unit and any areas affected by releases from the unit" under certain circumstances. See, for instance, WAC 173-303-640(8)(b), -660(9)(b), and -665(6). Ecology's proposed wording is also inconsistent with the applicability of closure and post-closure requirements given in WAC 173-303-610(1), which provides requirements for units at which dangerous waste will remain after closure and also provides for alternative requirements for closure that will protect human health and the environment.

We note that Ecology intended this change to "reflect closure guidance"<sup>1</sup>, presumably Ecology Publication 94-111, revised May 2005. This publication is entitled "Guidance for Clean Closure of Dangerous Waste Units and Facilities". Hence broadening this definition is not appropriate for the types of units allowed to undergo landfill closure.

Further, "closure" is not "the process of taking a dangerous waste management unit or a recycling unit out of service ..." as proposed (and as stated in Publication 94-111, Section 1.0.) A unit must cease accepting waste (essentially, be removed from service) in order to begin closure; see WAC 173-303-610(3) and (4). The only "service" that remains during closure is to manage inventory properly until removed and perform the duties prescribed in the regulations. Publication 94-111, Section 1.0 states, "When closure is being carried out, a unit is referred to as 'closing' or 'in closure'." Such units do not seem to be accurately considered "in service".

Ecology still retains the ability to require appropriate closure requirements through application of WAC 173-303-610, permit requirements of WAC 173-303-806 and/or corrective action requirements of WAC 173-303-646.

***Tell us how your recommendation will improve the proposed rule amendments:***

Our recommended language will clarify the definition of "closure" (compare definition at 40 CFR 270.2) to correctly reflect its usage in other parts of WAC 173-303. It will also aid in the proper scoping and preparation of closure plans for the units/facilities required to prepare them by WAC 173-303-610(3).

***Signature:*** L. A. Huffman

***Date:*** March 5, 2009

<sup>1</sup> Preamble, p. 14.

**RULE-MAKING PROPOSAL COMMENT FORM**  
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**Address:** PO Box 450, MSIN H6-60

**City ST Zip:** Richland, WA 99352

**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** WAC 173-303- **Page No.** 30 **Citation No.** -045(4)(d)  
045

***Please state your comment, question, or recommendation:***

Delete this addition.

***Explain your concern:***

We do not agree with Ecology's reasoning that SW-846 methods must currently be used in every instance where analysis is required, or that such requirements should be "retained". See detailed comments on Section 110(3).

***Tell us how your recommendation will improve the proposed rule amendments:***

Preserves flexibility and cost effectiveness in analysis of solid and dangerous waste

***Signature:*** L. A. Huffman

***Date:*** March 5, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

**Filed on January 15, 2009**

**First and Last Name:** L. A. Huffman

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**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

<b>Section No.</b> <u>WAC 173-303-100</u>	<b>Page No.</b> <u>66-67</u>	<b>Citation No.</b> <u>-100(2)</u>	
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***Please state your comment, question, or recommendation:***

Delete language in WAC 173-303-100 incorporating the Hazardous Substances Data Bank (HSDB) and the Ecotoxicology Database (ECOTOX) by reference.

***Explain your concern:***

The Administrative Procedures Act at RCW 34.05.365 allows agencies to incorporate by reference "...all or any part of a code, standard, rule or regulation..." The HSDB and ECOTOX databases are online compilations of toxicology data published in periodicals. As a result, they appear unqualified for adoption by reference; they do not appear to qualify as codes, standards, rules, or regulations as those terms are used in RCW 34.05.

RCW 34.05.365 also requires the reference in agency rules to "fully identify the incorporated matter". Not only does the proposed rule not identify the incorporated matter, but the databases proposed for incorporation by reference do not identify it; they only refer the reader to individual periodicals containing the data.

Finally, RCW 34.05.365 authorizes incorporation by reference only when "the agency, organization, or association originally issuing that matter makes copies readily available to the public." The HSDB and ECOTOX toxicology result summaries are made readily available by the respective agency. However, the studies that are the source of the data are not always readily available, and not necessarily from the respective agency.

It is not clear why incorporation by reference is necessary in order to utilize database information for waste designation. Ecology mandates use of "data that are available to" the generator in preference to the referenced databases; none of that available data is incorporated by reference into the Dangerous Waste Regulations. We do acknowledge that Ecology has previously incorporated RTECS into the Dangerous Waste Regulations by reference and are not requesting that it be deleted at this time.

***Tell us how your recommendation will improve the proposed rule amendments:***

Brings proposed rule into compliance with the Administrative Procedures Act.

***Signature:*** L. A. Huffman

***Date:*** March 5, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***  
**Filed on January 15, 2009**

**First and Last Name:** L. A. Huffman

**Organization or Affiliation:** Department of Energy, Office of River Protection

**Address:** PO Box 450, MSIN H6-60

**City ST Zip:** Richland, WA 99352

**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** WAC 173-303-100      **Page No.** 66, 67      **Citation No.** -(2)(b) and -(5)(b)(i)

***Please state your comment, question, or recommendation:***

The proposed requirement to use ECOTOX and HSDB as resources for determining constituent toxicity is inappropriate and should be deleted from WAC 173-303-100.

***Explain your concern:***

The proposed amendments would add ECOTOX and HSDB to the list of sources for determining toxic categories, apparently subject to the criterion that the most stringent toxic category from these sources would be used for designation purposes. Use of the ECOTOX and HSDB is inappropriate for many constituents. For example, the aquatic toxicity data in ECOTOX is often based on a generic identification of a metal, with no consideration of valence or solubility.

Consider the ECOTOX data for iron. The ECOTOX database shows an iron aquatic LC<sub>50</sub> of 0.56 ppm (96 hour test) due to toxicity to carp. (The database does not present any results for salmonids or fathead minnows, the preferred species under WAC 173-303-100(5)). Using this LC<sub>50</sub>, iron generically would be a toxic category B constituent, and designation as a WT02 dangerous waste would occur for any waste stream containing greater than 1,000 ppm of iron, including common items such as carbon steel. It is inappropriate for Ecology to base waste designation upon a database that would regulate common steel items as a dangerous waste. In addition, the statewide background concentration of iron in soil is 42,100 ppm (see Ecology's Natural Background Soil Metals Concentration in Washington State, Publication #94-115) – 42 times above the level resulting in designation based on generic application of the ECOTOX aquatic toxicity data. Obviously, with the high statewide background data and given the widespread presence of carp in various state waterways, other factors such as valence and solubility need to be considered in waste designation. The ECOTOX database makes no such distinction.

Generic use of the HSDB results in similar problems. For example, the HSDB shows an aquatic LC<sub>50</sub> of 0.015 mg/L for aluminum, making this a category A toxic material. Use of this data would not only result in EHW designation of aluminum pop cans, but would also result in soil at statewide background levels (37,200 mg/L aluminum) being designated as dangerous waste.

In some cases, the toxicity data in ECOTOX and HSDB could potentially be further evaluated by obtaining the source documents from which the database information is derived; however, these documents are not readily available to the general public, nor is the expertise necessary to evaluate and apply the associated technical information. As a consequence, generators using ECOTOX and the HSDB as mandatory references will be faced with designating various commonly encountered waste streams as dangerous wastes. This point seems to have been neglected in Ecology's *Preliminary Cost Benefit and Least Burdensome Analysis*, which concludes that availability of ECOTOX and HSDB represents a cost savings to generators as opposed to purchase of RTECS. Generators will not realize net cost savings if use of ECOTOX and HSDB results in them having to manage more of their waste as regulated dangerous waste, regardless of the savings associated with not having to purchase RTECS.

The proposed language regarding use of ECOTOX and HSDB as potential resources for toxicity information should be eliminated from WAC 173-303-100.

***Tell us how your recommendation will improve the proposed rule amendments:***

Eliminating the proposed requirement to use ECOTOX and HSDB toxicity data will avoid the unnecessary regulation of common, relatively non-hazardous materials as dangerous waste.

**Signature:** L. A. Huffman

**Date:** March 5, 2009



**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

Filed on January 15, 2009

First and Last Name: L. A. Huffman

Organization or Affiliation: Department of Energy, Office of River Protection

Address: PO Box 450, MSIN H6-60

City ST Zip: Richland, WA 99352

Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. WAC 173-303-100 Page No. 67-68 Citation No. -100(3) and (5)

***Please state your comment, question, or recommendation:***

Delete references to the Hazardous Substances Data Bank (HSDB) and the Ecotoxicology Database (ECOTOX).

***Explain your concern:***

Ecology's approach to require consultation of the ECOTOX and HSDB databases for waste designation results in the significant expansion of the reach of the Dangerous Waste Regulations to solid wastes that should not be regulated as dangerous. While the lack of aquatic toxicity data in RTECS is unfortunate, adopting ECOTOX and HSDB by reference and simply referencing the data in those compilations constitutes misuse of their data as defined by the databases themselves.

EPA's ECOTOX limitations statement includes the following: "You should consult the original scientific paper to ensure an understanding of the context of the data retrieved from the ECOTOX database."<sup>2</sup> HSDB assigns "review status tags" to indicate the level of quality review: data that has been peer reviewed; data that has been quality reviewed but not peer reviewed; and data that has not been reviewed. We believe that only data, which has been peer reviewed should be adopted for use for waste designation. RTECS, which has been required for use since 1995, suffers from the same limitations regarding data quality as has been previously cited for ECOTOX and HSDB. In fact, the Centers for Disease Control (sponsoring agency for RTECS) notes "No attempt has been made to evaluate the studies cited in RTECS. The user has the responsibility of making such assessments."<sup>3</sup> We are not requesting removal of RTECS as a reference at this time, but we note that the use of these databases in this manner ignores the warnings provided by the databases themselves as to the quality of the information presented.

Despite these cautions, Ecology proposes to utilize these compilations as authoritative for all forms of the materials tested. Ecology proposes to adopt the databases for designation, not the underlying research information, which is essential in proper application of the test data. As a result, Ecology's proposed approach results in regulation of wastes which RCW 70.105 was never intended to reach, and are not currently regulated.

For example, ECOTOX reports the LC<sub>50</sub> of copper metal (CASRN 7440-50-8) as 39 µg/L for Coho salmon<sup>4</sup> and 20 µg/L for Chinook salmon<sup>5</sup>. As a result, metallic copper would be a Toxic A constituent and any waste that contains copper metal at a concentration over 0.01% (100 ppm) would designate as a dangerous waste. Any waste that contained over 1% copper metal would be extremely hazardous. Due to the prevalent use of copper in consumer goods, electrical wiring, construction materials, electronic devices, and even pennies, many such items will be dangerous or extremely hazardous waste when discarded under Ecology's proposed approach.

The regulated community has been able to rely, in the past, on the information on the form of the material tested in the original research. In the instant case, reference to the original research shows that only powdered copper was tested<sup>6</sup>. Generators have not had to consider other forms of copper as potentially regulated, as they have been able to rely on the underlying research results. Ecology's proposed approach references only the database

<sup>2</sup> U.S. EPA, ECOTOX database, "ECOTOX Limitations" website. Viewed 2/6/09.

<sup>3</sup> CDC, NIOSH, "RTECS: What Is RTECS?" webpage, viewed 2/6/09.

<sup>4</sup> Mudge et al., "Effect of Varying Environmental Conditions on the Toxicity of Copper to Salmon", ECOTOX reference 45201.

<sup>5</sup> Chapman, G.A., and J.K. McCrady, "Copper Toxicity: A Question of Form", ECOTOX reference 2062.

<sup>6</sup> Ibid.

information, not the underlying research, and thus expands the reach of the regulations significantly. It could force generators to conduct needless aquatic toxicity testing in order to overturn the impact of referencing these databases, as only bioassay data can overturn a book designation per WAC 173-303-100(5)(d).

As a second example, HSDB provides a LC<sub>50</sub> for aluminum metal of 120 µg/L in rainbow trout<sup>7</sup> (CASRN 7429-90-5) and ECOTOX gives an LC<sub>50</sub> of 15 µg/L for brown trout<sup>8</sup>. As with copper metal, aluminum metal would be considered a Toxic A constituent and cause many currently unregulated wastes to become dangerous or extremely hazardous. The 15µg/L result was reported on a 42-day exposure to brown trout at the alevin stage<sup>9</sup>, data that is not comparable to the methods specified by Ecology to perform an aquatic toxicity study (96-hour exposure 30-90 days after swim-up, i.e. post-alevin stage).

We understand why Ecology would not wish to require generators to consult the original research referenced in ECOTOX and HSDB. It is not always possible to acquire a copy of the original research, as ECOTOX does not provide copies of copyrighted material and the original publishing journal or other source would have to be contacted. Some data in ECOTOX dates from 1972, and some is from non-English publications. It is impractical to consult individual studies for waste designation in any event. Most waste designators in the state of Washington would likely not be able to review these studies in order to analyze the information, resulting in improper designation of waste.

We are also concerned that the regulation of these metals, and perhaps others, as toxic constituents may result in the need to designate bulky, heterogenous wastes such as construction debris that have traditionally not been considered to require it. In the extreme, individual items discarded in such containers (such as an aluminum beverage can, which HSDB and ECOTOX would designate as WT01, extremely hazardous waste, at the point of generation) might cause an entire dumpster load to be regulated due to the mixture rule, WAC 173-303-150(1). It would then become incumbent on regulated generators of such material to inspect these bulk wastes to make sure they do not contain materials that would cause them to be regulated. Since we have several construction projects ongoing, the impact on those programs would be substantial. The change would also expand the universe of regulated waste generators; for instance, construction companies and the companies contracting them become co-generators of regulated waste through the presence of enough copper and/or aluminum in their construction waste. If the waste contains enough of these metals, or is regulated by the mixture rule, the waste would be extremely hazardous and prohibited from disposal in Washington State per WAC 173-303-140(4)(a).

Ecology, in the past, has indicated that they would help identify usable toxicity information through guidance, rather than through regulation, in order to avoid exclusion of data sources<sup>10</sup>. The proposed rule amendment reverses this policy without explanation.

In summary, the proposed amendments introduce more data of widely variable quality and verifiability with the force of state regulation to book-designate waste. Ecology cites strong, national peer review as its rationale for retention of SW-846 analytical methods in its preamble to this proposed rule amendment. Comparable data or method quality standards are not necessarily followed for the addition of ECOTOX and HSDB; rather, these are recommended because they are free and easily accessed via the Internet. The amendments introduce a considerable amount of added effort to the book designation process and will significantly expand the universe of regulated toxic DW. We strongly encourage Ecology to avoid this outcome by identifying only well-established, peer-reviewed data sources through guidance as the basis for book designation in the absence of waste-specific information available to the generator.

**Tell us how your recommendation will improve the proposed rule amendments:**

Limits use of inaccurate or inapplicable information in designation of state-only dangerous waste; precludes management of wastes not intended to be regulated pursuant to RCW 70.105 as dangerous or extremely hazardous.

**Signature:** L. A. Huffman

**Date:** March 5, 2009

<sup>7</sup> Holtze, K.E., "Effects of pH and Ionic Strength on Aluminum Toxicity to Early Developmental Stages of Rainbow Trout (*Salmo gairdneri* Richardson), Ontario Ministry of the Environment, Rexdale, Ontario, Canada: 39 (1983). ECOTOX reference 14405.

<sup>8</sup> Weatherly et al., "The Survival of Early Life States of Brown Trout (*Salmo trutta* L.) in Relation to Aluminum Speciation in Upland Welsh Streams", in *Aquatic Toxicology* 17(3):213-230, 1990. ECOTOX reference 3472.

<sup>9</sup> *Ibid.*

<sup>10</sup> Ecology, Responsiveness Summary for 1995 DW Regulations Amendments, Publication 95-423, p. 44, response to Comment 132.

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***  
**Filed on January 15, 2009**

First and Last Name: L. A. Huffman

Organization or Affiliation: Department of Energy, Office of River Protection

Address: PO Box 450, MSIN H6-60

City ST Zip: Richland, WA 99352

Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. WAC 173-303-100 Page No. 67-68 Citation No. -100(2), (3) and (5)

**Please state your comment, question, or recommendation:**

Ecology's analysis of costs and benefits from this rulemaking overlooks significant new costs to the regulated community while overstating savings. Ecology's Small Business Economic Impact Statement contains the same oversight. A further analysis should be undertaken to determine whether the proposed rule properly evaluates cost/benefit and whether it may disproportionately impact small business by causing them to become large quantity hazardous waste generators.

**Explain your concern:**

Ecology's analysis of costs and benefits (Publication 09-04-006), page 6, values the adoption of this rule as a cost savings to Washington dangerous waste generators of \$140,000 per year. Ecology's Small Business Economic Impact Statement (Publication 09-04-005), pages 3 and 15, portrays the adoption of this rule as a cost savings to Washington dangerous waste generators. This value is overstated, as it presumes that generators would not need to subscribe to one of the RTECS information services if ECOTOX and HSDB were used instead. However, Ecology's proposed rule incorporates RTECS by reference along with ECOTOX and HSDB (subsection 2), and requires RTECS' use along with the other two databases to determine which has the highest toxicity for the same test endpoint (subsections 3 and 5). Any generator that did not consult RTECS, trusting ECOTOX and/or HSDB to report the applicable data in RTECS, would be undertaking a compliance risk. Most generators are unlikely to undertake this risk for the potential savings of roughly \$500 per year, as fines and penalties for misdesignation of waste are usually many times this amount.

In addition to overstating savings, the analysis of costs and benefits completely ignores the significant economic cost of regulating hundreds of new dangerous wastes resulting from widespread use of ECOTOX and HSDB as a regulatory requirement. For instance, ECOTOX gives the aquatic toxicity of copper metal (CASRN 7440-50-8) as 39 µg/L for Coho salmon<sup>11</sup> and 20 µg/L for Chinook salmon<sup>12</sup>. As a result, metallic copper would be a Toxic A constituent, and any waste that contains copper metal at a concentration over 0.01% (100 ppm) would designate as a dangerous waste.

A second example is aluminum metal. HSDB provides a LC<sub>50</sub> for elemental aluminum of 120 µg/L in rainbow trout<sup>13</sup> (CASRN 7429-90-5) and ECOTOX gives an LC<sub>50</sub> of 15 µg/L for brown trout<sup>14</sup>. As with copper metal, aluminum metal would be considered a Toxic A constituent and cause many currently unregulated wastes to become dangerous. In short, Ecology is significantly broadening the scope of the Dangerous Waste Regulations without determining the economic impact of the change.

**Tell us how your recommendation will improve the proposed rule amendments:**

Allow Ecology to make a proper determination of cost/benefit of the proposed regulation as required by 34.05 RCW; allow Ecology to make a proper determination of small business impact of the proposed regulation as required by 19.85 RCW.

Signature: L. A. Huffman

Date: March 5, 2009

<sup>11</sup> Mudge et al., "Effect of Varying Environmental Conditions on the Toxicity of Copper to Salmon", ECOTOX reference 45201.

<sup>12</sup> Chapman, G.A., and J.K. McCrady, "Copper Toxicity: A Question of Form", ECOTOX reference 2062.

<sup>13</sup> Holtze, K.E., "Effects of pH and Ionic Strength on Aluminum Toxicity to Early Developmental Stages of Rainbow Trout (*Salmo gairdneri* Richardson), Ontario Ministry of the Environment, Rexdale, Ontario, Canada: 39 (1983). ECOTOX reference 14405.

<sup>14</sup> Weatherly et al., "The Survival of Early Life Stages of Brown Trout (*Salmo trutta* L.) in Relation to Aluminum Speciation in Upland Welsh Streams", in *Aquatic Toxicology* 17(3):213-230, 1990. ECOTOX reference 3472.

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

**Filed on January 15, 2009**

First and Last Name: L. A. Huffman

Organization or Affiliation: Department of Energy, Office of River Protection

Address: PO Box 450, MSIN H6-60

City ST Zip: Richland, WA 99352

Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. WAC 173-303- Page No. 71 Citation No. -104(5)  
100

Please state your comment, question, or recommendation:

Please provide an alternative method for generator annual reporting for labpacks.

Explain your concern:

With the deletion of the WL01 and WL02 waste codes, we have experienced a significant increase in cost associated with preparing annual reports. While we understand the reasons for deleting the WL01 and WL02 waste codes from the regulations, we request that Ecology modify TurboWaste to allow reporting of combination packagings as a single waste unit rather than a unique container exhibiting every waste code represented in the package. Under current regulation and TurboWaste requirements, nearly every container within a labpack must be identified as a separate waste stream and have its own GM form since each labpack generally contains a different assortment of wastes and waste codes. There is little value to Ecology, the regulated community, or the public in the bulkier annual report submittals that have resulted from the deletion of these waste codes.

Tell us how your recommendation will improve the proposed rule amendments:

Streamlines annual reporting for labpacks without requiring the labpack waste codes to be restored to the regulations.

Signature: L. A. Huffman

Date: March 5, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
**Dangerous Waste Regulations, Chapter 173-303 WAC**  
**Filed on January 15, 2009**

First and Last Name: L. A. Huffman

Organization or Affiliation: Department of Energy, Office of River Protection

Address: PO Box 450, MSIN H6-60

City ST Zip: Richland, WA 99352

Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. WAC 173-303-100 Page No. 73 Citation No. -110(3)(a)

Please state your comment, question, or recommendation:  
Replace the text of this section with the identity of the specific test procedures being incorporated. The specific test procedures from SW-846 that are incorporated should be the same list as that found in 40 CFR 260.11(c)(3).

Explain your concern:  
This comment rises from two concerns.

Our first concern is that the Administrative Procedures Act at RCW 34.05.365 allows agencies to incorporate by reference "...all or any part of a code, standard, rule or regulation..." The SW-846 manual is a compilation of testing methods. As a result, it appears unqualified for adoption by reference; the manual as a whole does not appear to qualify as codes, standards, rules, or regulations as those terms are used in RCW 34.05.

RCW 34.05.365 also requires the reference in agency rules to "fully identify the incorporated matter". It is not clear whether Ecology intends to incorporate the entire manual, just the test procedures (as intimated by the preamble and other changes to the regulations), or some other subset of SW-846.

We are also concerned that by incorporating the entire SW-846 manual, Ecology is using this section to make mandatory not only those testing methods that were made nonmandatory by the federal Methods Innovation Rule<sup>15</sup>, but methods that were never previously mandatory. Table 2 in the preamble to the Methods Innovation Rule<sup>16</sup> enumerates which portions of the Federal rules were being amended to delete the mandatory use of SW-846. These deletions are relatively minor in scope and would impact very few facilities in Washington State, with the possible exception of the method for measuring air emissions from tanks and containers.

However, inclusion of all of SW-846 "by reference" appears to make mandatory methods that were never previously required for waste analysis. For example, EPA notes in the preamble of the Methods Innovation Rule<sup>17</sup> that the Toxicity Characteristic Leaching Procedure (SW-846 Method 1311), while required to prepare an extract for analysis, does not specify the method for analysis of the resulting extract. Instead, it allows use of "appropriate analytical methods" and has since 1992<sup>18</sup>. It is not clear why Ecology believes SW-846 testing methods are now the only way such extracts can be properly analyzed. In fact, EPA states the opposite in its preamble: "EPA also believes that method selection should be a project-specific decision and therefore cannot recommend or approve any methods – even SW-846 methods – as always being appropriate for any given application ... Relying on the fact that a method is contained in SW-846 does not guarantee that the method will always generate effective data under any situation. If the SW-846 method is not an appropriate method for its intended application, following it exactly could generate erroneous data and could fail to demonstrate compliance with the RCRA requirements."<sup>19</sup> Further, "The Agency [i.e. EPA] strongly disagrees with commenters that SW-846 methods should be identified as always appropriate."<sup>20</sup>

Therefore, while Ecology states that "Washington and other states have depended upon SW-846 to provide validated methods that can be used to meet the requirements of the regulations"<sup>21</sup>, the document's author (EPA)

<sup>15</sup> 70 FR 34537, 6/14/05.

<sup>16</sup> *ibid.* at 34546.

<sup>17</sup> *Ibid.* at 34543.

<sup>18</sup> *Ibid.* See also SW-846, Method 1311, Sections 7.2.14 and 7.3.15.

<sup>19</sup> *Ibid.*

<sup>20</sup> *Ibid.* at 34545.

<sup>21</sup> Ecology, "Proposed Amendments" [preamble], p. 7.

disagrees that it fulfills that role and says it should not be used in that manner. Ecology states that it “cannot divert already over-extended resources to review methods outside of SW-846”<sup>22</sup>, yet it retains the option to petition for use of other methods and admits, “the generator remains legally liable for designation of its waste”<sup>23</sup>.

Ecology has not provided any data to demonstrate that use of SW-846 is universally appropriate or compliant. Ecology has also not demonstrated that EPA improperly made any SW-846 methods nonmandatory in any of the situations where Ecology proposes to make them mandatory. Ecology should not pursue blanket imposition of SW-846 without substantial justification.

Tell us how your recommendation will improve the proposed rule amendments:

Brings proposed rule into compliance with the Administrative Procedures Act; incorporates only the methods required for compliance into the Dangerous Waste Regulations.

Signature: L. A. Huffman

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Date: March 5, 2009

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<sup>22</sup> Ibid.

<sup>23</sup> Ibid.

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

**Filed on January 15, 2009**

First and Last Name: L. A. Huffman

Organization or Affiliation: Department of Energy, Office of River Protection

Address: PO Box 450, MSIN H6-60

City ST Zip: Richland, WA 99352

Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. WAC 173-303-110 Page No. 74 Citation No. -110(3)(f)

Please state your comment, question, or recommendation:  
Delete this subsection.

**Explain your concern:**

As this subsection has been reworded, it now makes mandatory selecting one of the methods given in Chapter 2 of SW-846 for any waste. This is inconsistent with the remainder of Section 110, where other methods are specified for certain types of wastes or certain constituents. Further, as presently written, subsection (f) is redundant to subsection (a) of this section, as SW-846 is already incorporated by reference in its entirety via the changes to subsection (a). The original purpose of subsection (f) was to assure consistency with Federal rules by referencing 40 CFR 261 Appendix II and Appendix III. As EPA has removed and reserved both appendices, the references are no longer necessary and Ecology has determined not to be consistent with Federal rules in any event.

Note: refer to our comment on subsection (3)(a) for recommended wording of that subsection.

Tell us how your recommendation will improve the proposed rule amendments:  
Simplifies the references provided in this section.

Signature: L. A. Huffman

Date: March 5, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

**Filed on January 15, 2009**

First and Last Name: L. A. Huffman

Organization or Affiliation: Department of Energy, Office of River Protection

Address: PO Box 450, MSIN H6-60

City ST Zip: Richland, WA 99352

Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. WAC 173-303-110 Page No. 75 Citation No. -110(5)

**Please state your comment, question, or recommendation:**

Revise this subsection to read: (5) Equivalent testing or analytical methods. Any person may petition for a regulatory amendment to add a testing or analytical method to this section by preparing and submitting a petition to the department in accordance with WAC 173-303-910(2).

**Explain your concern:**

The words "testing or analytical method" are added since Ecology's stated intent is to apply this process to testing methods, not to other subjects in this section (e.g. sampling methods). This change also restores consistency with -910(2).

Restore use of word "may" instead of "must". There is no reason to insist on use of the petition process in all cases. For instance, Ecology permit writers should have the flexibility to allow alternative methods to be used in the context of individual permitted facilities where appropriate. Ecology states that this is their intent<sup>24</sup>, but the wording of this section appears to preclude it. Further, discussion with some Ecology permit writers has indicated that they would not be able to authorize use of alternate methods in permits if this language is adopted. There are many reasons that alternative test methods should be considered for use, and we object to the requirement to use only the methods listed in section -110 in our comment on subsection -110(1). Further, the subsection -910(2) process results in an amendment to WAC 173-303. This process is expensive and time-consuming. Other processes should be considered in cases where an amendment to the WAC is unnecessary, e.g. one-time approvals.

**Tell us how your recommendation will improve the proposed rule amendments:**

Provides clarification and flexibility in the application of this subsection.

Signature: L. A. Huffman

Date: March 5, 2009

<sup>24</sup> Preamble, p. 15.



**RULE-MAKING PROPOSAL COMMENT FORM**  
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Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. WAC 173-303-110 Page No. 75 Citation No. -110(6)

Please state your comment, question, or recommendation:

Delete this subsection.

Explain your concern:

Reporting of analytical results on a dry weight basis is inappropriate for a number of reasons. First, it appears that if the test method is performed for waste designation purposes, a dry weight measurement will produce an analytical result that is not representative of the waste at the point of the generation when the waste contains water or moisture.

As a specific example of a parameter where a dry measurement is inappropriate, the amount of water in a sample is immaterial to the measurement of pH in soil (SW-846 Method 9045D), as water is added to the sample during analysis. Further, Method 9045D specifies that the sample must be less than 20% water. Ecology has not indicated the regulatory basis for adding a requirement for reporting all results on a dry weight basis, especially since solids and soils can vary in moisture content as a normal part of generation. No explanation of why compensation for variability in water content is necessary is offered. WAC 173-303 already proscribes improper dilution of waste to avoid regulation.

Ecology has not established the value of a "consistent procedure for all analytical results" since most analyses for designation purposes are never submitted to Ecology, and the generator retains the responsibility to designate properly their waste in any event<sup>25</sup>. If Ecology wishes to evaluate consistently analytical results for which certification of designation has been requested under the provisions of WAC 173-303-075, Ecology can add this requirement to that section without requiring the vast majority of designations not submitted to Ecology include this requirement. Soils and solid materials typically vary in water content as generated. This requirement would add the analysis of water content (Ecology estimate of less than \$25 per sample) to the analytical cost for any soil or solids sample.

Also note that Ecology already has the authority to require any generator to analyze its waste (including for moisture content) at WAC 173-303-070(4) for cause.

We also note with interest that Ecology's "Background and Rationale for the Update of Biological Testing Methods ..." issued at the same time as this proposed rule describes Ecology's reasoning for deleting the requirement to determine the moisture content of a sample being tested for toxicity pursuant to the Biological Testing Methods. It would appear that the same rationale described for deleting the moisture content determination requirement from the Biological Testing Methods would argue against the addition of this requirement in WAC 173-303-110(6).

Although Ecology has stated that it has always been their intent that results be reported this way, this requirement has not appeared in Ecology's Chemical Test Methods guidance in the past. It is also not mentioned anywhere in the revised Chemical Test Methods document provided with this proposed rule, even though the Preamble states that it does<sup>26</sup>.

Tell us how your recommendation will improve the proposed rule amendments:

Avoid imposition of unnecessary requirements to waste generators statewide.

Signature: L. A. Huffman

Date: March 5, 2009

<sup>25</sup> WAC 173-303-070(1)(b); see also Preamble, p. 7.

<sup>26</sup> Preamble, p. 15.

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

**Filed on January 15, 2009**

First and Last Name: L. A. Huffman  
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City ST Zip: Richland, WA 99352  
\_\_\_\_\_

Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. WAC 173-303-- Page No. 75 Citation No. -110(7)  
110 \_\_\_\_\_

Please state your comment, question, or recommendation:

Because Ecology is no longer using 40 CFR 264 Appendix IX as a reference in the regulations, Ecology should explain in the responsiveness summary how they are going to maintain the groundwater monitoring list in Appendix 5 of the Chemical Testing Methods for Designating Dangerous Waste consistent with EPA's list in 40 CFR 264 Appendix IX.

Explain your concern:

With Ecology no longer referencing 40 CFR 264 Appendix IX in the regulations, a concern exists that the two lists of constituents can become different over time. If and when EPA modifies the list of constituents in 40 CFR 264 Appendix IX, Ecology should also then update the chemical testing methods appendix to be consistent. Ecology should make a commitment in the responsiveness summary to keep the two lists of constituents the same.

Tell us how your recommendation will improve the proposed rule amendments:

With Ecology making a commitment to keep the lists of constituents the same, Ecology will minimize the problems that can be created during enforcement activities and when EPA looks at the state's authorized program.

Signature: L. A. Huffman

Date: March 5, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

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Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. WAC 173-303- Page No. 80 Citation No. -140(2)(a)  
140

Please state your comment, question, or recommendation:  
Delete the proposed added sentence at the end of this paragraph imposing WAC 173-303-110(3)(a) in lieu of 40 CFR 260.11.

Explain your concern:  
We do not agree that imposition of the specified methods in WAC 173-303-110(3)(a) is appropriate in every case. Refer to our comments on WAC 173-303-110(3)(a).

Tell us how your recommendation will improve the proposed rule amendments:  
Incorporates only the methods required for compliance into the Dangerous Waste Regulations

Signature: L. A. Huffman

Date: March 5, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

**Filed on January 15, 2009**

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**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** WAC 173-303- **Page No.** 96 **Citation No.** -200(2)(a)  
200

**Please state your comment, question, or recommendation:**

We commend Ecology for making this change to allow satellite accumulation to correlate more closely with Federal requirements for the same. We also suggest that, once incorporated, Ecology's guidance document on satellite accumulation be updated to reflect this change.

**Explain your concern:**

None.

**Tell us how your recommendation will improve the proposed rule amendments:**

Consistency with Federal guidance.

**Signature:** L. A. Huffman

**Date:** March 5, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

**Filed on January 15, 2009**

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**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** WAC 173-303- **Page No.** 120 **Citation No.** -300(5)(f)  
300

**Please state your comment, question, or recommendation:**

Delete proposed added sentence.

**Explain your concern:**

The added sentence requires use of the specified methods in WAC 173-303-110(3), as proposed, for all laboratory analyses used in connection with a waste analysis plan. We object to Ecology's approach for mandatory use of the methods specified in -110(3), unless those methods are the only one capable of measuring a particular property (e.g. toxicity characteristic leaching procedure). See our comments on -110(3)(a).

Further, the inclusion of this requirement in this section ties the hands of Ecology permit writers in developing appropriate test methods for permitted facilities. In its preamble, Ecology states, "other methods can be used in permits to support facility operations."<sup>27</sup> Inclusion of this sentence here overturns Ecology's stated intention, as permit writers will have no choice but to require -110(3) methods be used in waste analysis plans.

**Tell us how your recommendation will improve the proposed rule amendments:**

Preserve flexibility in permits; incorporates only the methods required for compliance into the Dangerous Waste Regulations.

**Signature:** L. A. Huffman

**Date:** March 5, 2009

<sup>27</sup> Preamble, p. 15, reason for change to 110(1).

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

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**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** WAC 173-303-300      **Page No.** 120      **Citation No.** -300(5)(f)

***Please state your comment, question, or recommendation:***

Delete proposed added sentence.

***Explain your concern:***

The proposed addition of compliance with requirements under WAC 173-303-110(3)(a) creates a large additional burden on the regulated community. Note that many generators, including Hanford, meet their waste designation obligations through the use of knowledge of the waste. This is authorized by regulation (see WAC 173-303-070(3)(c)(ii)). This would force receiving TSD facilities that receive out of state waste to apply additional testing requirements when an out of state generator did not use SW-846 methods. This cost would then be passed back to generators by the receiving facilities, penalizing those facilities that develop knowledge of their wastes in order to avoid expensive testing.

The means of referencing the sections in existing -300(5)(f) could also subject all activity under closure, postclosure (references to unit-specific closure/postclosure requirements), and corrective action to SW-846 (references to -645 and -646 are included in "-630 through -670"). This is not appropriate as individual wastes and matrices at facilities that are closing or already closed may require different analytical techniques.

Also note that the requirements in -300(5)(f) are elements of data gathering pursuant to a waste analysis plan at a interim- or final-status facility<sup>28</sup>. The purpose of such data is not to designate the waste, but confirm the owner or operator's knowledge about a waste in order to manage it properly (see -300(1)). The requirement to have all data meet SW-846 analysis requirements is excessive. In many cases, convenient and readily available test kits or similar devices are available to meet the requirements of -300(1) without requiring each and every TSD facility in the state to have a fully equipped and functioning laboratory (or one nearby under contract) in order to conduct basic confirmatory waste analysis. Where testing must use -110(3) methods per Federal regulation [e.g. analysis of treated waste residues under 40 CFR 268.7(b)(1) or (2)], the requirement should come from the referenced section, not -300(5)(f).

**Tell us how your recommendation will improve the proposed rule amendments:**

Preserve flexibility in analysis requirements between generators and TSD facilities.

**Signature:** L. A. Huffman

**Date:** March 5, 2009

<sup>28</sup> This requirement would also include generators treating their waste in tanks or containers to meet LDR requirements.

**RULE-MAKING PROPOSAL COMMENT FORM**  
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**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** WAC 173-303-320      **Page No.** N/A      **Citation No.** -320(2)(c)

**Please state your comment, question, or recommendation:**

Revise WAC 173-303-320(2)(c) to read as follows:

(c) The schedule must indicate the frequency of inspection for the items on the schedule. The frequency should be based on the rate of possible deterioration of equipment, and the probability of an environmental or human health incident if the deterioration, malfunction, or operator error goes undetected between inspections. Areas subject to spills, such as loading and unloading areas, must be inspected daily when in use, except for Performance Track member facilities, that must inspect at least once each month, upon approval by the Department as described in paragraph (4). At a minimum, the inspection schedule must...

Add a new paragraph (4) to WAC 173-303-320 to read as follows:

(4) Performance Track member facilities that choose to reduce their inspection frequency must:

(i) Submit a request for a Class 1 permit modification with prior approval to the department. The modification request must identify the facility as a member of the National Environmental Performance Track Program and identify the management units for reduced inspections and the proposed frequency of inspections. The modification request must also specify, in writing, that the reduced inspection frequency will apply for as long as the facility is a Performance Track member facility, and that within seven calendar days of ceasing to be a Performance Track member, the facility will revert to the non-Performance Track inspection frequency. Inspections must be conducted at least once each month.

(ii) Within 60 days, the Director will notify the Performance Track member facility, in writing, if the request is approved, denied, or if an extension to the 60-day deadline is needed. This notice must be placed in the facility's operating record. The Performance Track member facility should consider the application approved if the Director does not: deny the application; or notify the Performance Track member facility of an extension to the 60-day deadline. In these situations, the Performance Track member facility must adhere to the revised inspection schedule outlined in its request for a Class 1 permit modification and keep a copy of the application in the facility's operating record.

(iii) Any Performance Track member facility that discontinues their membership or is terminated from the program must immediately notify the Director of their change in status. The facility must place in its operating record a dated copy of this notification and revert to the non-Performance Track inspection frequencies within seven calendar days.

Revise WAC 173-303-630(6) to read:

(6) Inspections. At least weekly, the owner or operator must inspect areas where containers are stored, except for Performance Track member facilities that may conduct inspections at least once per month, upon approval by the department. To apply for reduced inspection frequencies, the Performance Track member facility must follow the procedures identified in WAC 173-303-320(4). The owner or operator must look for leaking containers and for deterioration of containers and the containment system caused by corrosion or other factors. The owner or operator must keep an inspection log ...

Revise WAC 173-303-640(6)(b) to read:

(b) Except as noted under paragraph (f) of this section, the owner or operator must ...

Add a new paragraph (f) to WAC 173-303-640(6) to read:

(f) Performance Track member facilities may inspect on a less frequent basis, upon approval by the department, but must inspect at least once each month. To apply for a less than weekly inspection frequency, the Performance Track member facility must follow the procedures described in WAC 173-303-320(4).

**Explain your concern:**

We strongly recommend that Ecology add potentially decreased inspection requirements for members of EPA's National Environmental Performance Track program as adopted by Federal regulations. Ecology's rationale for not adopting this rule, as given in the preamble, is that reduced inspections could lessen the current level of human or environmental protection, reduce access to available information, or risk a conflict of interest<sup>29</sup>. However, as required under the equivalent EPA regulations and included in proposed section -320(4), Ecology has the authority to review and authorize (or deny) each request for reduced inspection frequency. Because of this review process, there is no potential for reduced protection inherent in the adoption of this rule. Performance Track members would be responsible for demonstrating adequate human and environmental protection as a part of any proposal for reduced inspection frequencies. For instance, Performance Track members will have environmental management system requirements for accumulation, and regulatory-compliant leak detection systems for tank systems.

Review of requests for reduced inspection requirements should not present significant resource burdens for Ecology. As of February 2009, there are nineteen Performance Track facilities in the state of Washington. Only one request for inspection frequency change is required per member facility, and it is possible that not all Performance Track members would seek this change for their facilities. Hence, the review of the few requests that would potentially be filed would not represent a significant change in Ecology program costs.

Ecology should strive to provide incentives for beyond-compliance environmental performance, such as those achieved by Performance Track members, as envisioned by its Performance Partnership Agreement with EPA<sup>30</sup> and Ecology's Beyond Waste plan<sup>31</sup>. Facilities must demonstrate superior environmental performance to become Performance Track members. The relatively modest incentives available to be provided to members should be readily adopted by Ecology in order to incentivize voluntary, superior environmental performance at Washington facilities.

**Tell us how your recommendation will improve the proposed rule amendments:**

Enhance consistency with Federal regulations and incentivize superior environmental performance by Washington facilities.

**Signature:** L. A. Huffman

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**Date:** March 5, 2009

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<sup>29</sup> Preamble, p. 10, 2<sup>nd</sup> paragraph.

<sup>30</sup> See "Environmental Performance Partnership Agreement", Ecology Publication 07-01-028, p. 11, 40, and Appendix 3.

<sup>31</sup> See, e.g., "Potential Enhancements to Ecology's Pollution Prevention Planning Program", Ecology Publication 03-04-033, p. 30-33.



**RULE-MAKING PROPOSAL COMMENT FORM**  
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**City ST Zip:** Richland, WA 99352

**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** WAC 173-303- **Page No.** 124 **Citation No.** -370(2)(b)  
370

**Please state your comment, question, or recommendation:**  
Correct the reference as follows: ...“(as defined in subsection (5)(a) of this section)”...

**Explain your concern:**  
Definition of manifest discrepancies has moved to subsection (5)(a).

**Tell us how your recommendation will improve the proposed rule amendments:**  
Updates reference to manifest discrepancies as has been done in subsection (4)(b).

**Signature:** L. A. Huffman

**Date:** March 5, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
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**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** WAC 173-303- **Page No.** 125 **Citation No.** -370(4)(b)  
370

**Please state your comment, question, or recommendation:**

Revise this to read: "Note any discrepancies (as defined in subsection (5)(a) of this section) in the manifest or shipping paper (if the manifest has not been received) on each copy of the manifest or shipping paper."

**Explain your concern:**

Should note the specific subsection that describes discrepancies; most of the rest of section (5) deals with how to deal with the discrepancies once discovered and is not relevant here. This change also makes the wording consistent with -370(2)(b) (see our comment at -370(2)(b)) and with 40 CFR 264.71(a)(2)(ii) and (b)(2)(ii), with which this wording is intended to be consistent.

**Tell us how your recommendation will improve the proposed rule amendments:**

Consistent wording and correct references to reflect new manifest requirements.

**Signature:** L. A. Huffman

**Date:** March 5, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
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**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** WAC 173-303- **Page No.** 128 **Citation No.** -370(6)(a)(ii)  
370

**Please state your comment, question, or recommendation:**

Revise this to read: "...as defined in subsection (5)(a) of this section..."

**Explain your concern:**

Should note the specific subsection that describes discrepancies; most of the rest of section (5) deals with how to deal with the discrepancies once discovered and is not relevant here. This change also makes the wording consistent with -370(2)(b) and -370(4)(b) (see our comments at those subsections).

**Tell us how your recommendation will improve the proposed rule amendments:**

Consistent wording and correct references to reflect new manifest requirements.

**Signature:** L. A. Huffman

**Date:** March 5, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
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**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** WAC 173-303- **Page No.** 129 **Citation No.** -380(1)(c)  
380

**Please state your comment, question, or recommendation:**  
Delete proposed added sentence.

**Explain your concern:**

The added sentence requires use of the specified methods in WAC 173-303-110(3)(a), as proposed, for all laboratory analyses used in connection with a waste analysis plan. We object to Ecology's approach for mandatory use of the methods specified in -110(3), unless those methods are the only one capable of measuring a particular property (e.g. toxicity characteristic leaching procedure). See our comments on -110(3)(a). In addition, this sentence only allows SW-846 test methods, and not the other test methods incorporated in -110(3)(b)-(h).

Further, the inclusion of this requirement in this section ties the hands of Ecology permit writers in developing appropriate test methods for permitted facilities. In its preamble, Ecology states, "other methods can be used in permits to support facility operations."<sup>32</sup> Inclusion of this sentence here overturns Ecology's stated intention, as permit writers will have no choice but to require -110(3) methods be used in all monitoring, testing, and analytical data.

**Tell us how your recommendation will improve the proposed rule amendments:**

Preserve flexibility in permits; incorporates only the methods required for compliance into the Dangerous Waste Regulations.

**Signature:** L. A. Huffman

**Date:** March 5, 2009

<sup>32</sup> Preamble, p. 15, reason for change to 110(1)

**RULE-MAKING PROPOSAL COMMENT FORM**  
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**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** WAC 173-303- **Page No.** 129 **Citation No.** -380(1)(f)  
380

**Please state your comment, question, or recommendation:**

Delete proposed added sentence at end of this subsection.

**Explain your concern:**

The added sentence requires use of the specified methods in WAC 173-303-110(3)(a), as proposed, for all laboratory analyses used in connection with a waste analysis plan. We object to Ecology's approach for mandatory use of the methods specified in -110(3), unless those methods are the only one capable of measuring a particular property (e.g. toxicity characteristic leaching procedure). See our comments on -110(3)(a). In addition, this sentence only allows SW-846 test methods, and not the other test methods incorporated in -110(3)(b)-(h).

Further, the inclusion of this requirement in this section ties the hands of Ecology permit writers in developing appropriate test methods for permitted facilities. In its preamble, Ecology states, "other methods can be used in permits to support facility operations."<sup>33</sup> Inclusion of this sentence here overturns Ecology's stated intention, as this requirement appears to mandate that permit writers require -110(3) methods be used in all monitoring, testing, and analytical data.

**Tell us how your recommendation will improve the proposed rule amendments:**

Preserve flexibility in permits; incorporates only the methods required for compliance into the Dangerous Waste Regulations.

**Signature:** L. A. Huffman

**Date:** March 5, 2009

<sup>33</sup> Preamble, p. 15, reason for change to 110(1)

**RULE-MAKING PROPOSAL COMMENT FORM**  
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<b>Section No.</b>	<u>WAC 173-303-</u>	<b>Page No.</b>	<u>131</u>	<b>Citation No.</b>	<u>-380(2)(c), Table 1</u>
	<u>380</u>				

**Please state your comment, question, or recommendation:**

Delete repeat references to pounds, short tons, and kilograms. Clarify whether "tons" refers to long tons (2200 lbs), metric tons (1000 Kg), or some other type of ton.

**Explain your concern:**

The repeated appearance of pounds, short tons, and kilograms at the bottom of Table 1 should be avoided. Either delete them at the bottom of the table or delete the previous instances in the table. As to the reference to "tons (M)", define what type of ton is intended. The Federal rule does not indicate whether this is a metric ton (as implied by the use of the code "M") or some other type of ton.

**Tell us how your recommendation will improve the proposed rule amendments:**

Simplifies and clarifies the use of Table 1.

**Signature:** L. A. Huffman

**Date:** March 5, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
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**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** WAC 173-303-400      **Page No.** 140      **Citation No.** -400(3)(c)(iii)

**Please state your comment, question, or recommendation:**  
Delete proposed added sentence and revise section numbering accordingly.

**Explain your concern:**

The added sentence requires use of the specified methods in WAC 173-303-110(3)(a), as proposed, for all laboratory analyses used in connection with a waste analysis plan. We object to Ecology's approach for mandatory use of the methods specified in -110(3), unless those methods are the only one capable of measuring a particular property (e.g. toxicity characteristic leaching procedure). See our comments on -110(3)(a). In addition, this sentence only allows SW-846 test methods, and not the other test methods incorporated in -110(3)(b)-(h).

**Tell us how your recommendation will improve the proposed rule amendments:**

Incorporates only the methods required for compliance into the Dangerous Waste Regulations

**Signature:** L. A. Huffman

**Date:** March 5, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***  
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**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** WAC 173-303-400      **Page No.** 144      **Citation No.** -400(3)(c)(xiii)

**Please state your comment, question, or recommendation:**

Change the text of the citation to read: "An additional sentence reads: "An owner/operator must not landfill an organic/carbonaceous waste or an EHW, as defined by WAC 173-303-080 through 173-303-100, except at the EHW facility at Hanford under WAC 173-303-700, or as allowed under WAC 173-303-140(5), (6), or (7), or as allowed under RCW 70.105.050(2)."

**Explain your concern:**

The citation does not reflect current requirements for land disposal at a landfill. As proposed, it reads:

(xiii) "Subpart N - landfills."

(A) An additional sentence reads: "An owner/operator must not landfill an organic/carbonaceous waste or an EHW, as defined by WAC 173-303-080 through 173-303-100, except at the EHW facility at Hanford."

There is an inconsistency between the text in WAC 173-303-400(3)(c)(xiii) with the text in WAC 173-303-140(5), (6), and (7) and RCW 70.105.050(2). This sentence, fails to reflect the actual regulatory and statutory provisions that do, in fact, allow for land disposal of an organic/carbonaceous waste and EHW under certain circumstances. For example, WAC 173-303-140(4)(a) allows for land disposal of EHW in accordance with subsections (5), (6), and (7) of the regulation. RCW 70.105.050(2) allows for disposal of radioactive EHW provided certain conditions are met. The sentence should be revised to reflect the fact that EHW can, in fact, be land disposed under certain conditions.

RCW 70.105.050(2) states: "Extremely hazardous wastes that contain radioactive components may be disposed at a radioactive waste disposal site that is (a) owned by the United States department of energy or a licensee of the nuclear regulatory commission and (b) permitted by the department and operated in compliance with the provisions of this chapter. However, prior to disposal, or as a part of disposal, all reasonable methods of treatment, detoxification, neutralization, or other waste management methodologies designed to mitigate hazards associated with these wastes shall be employed, as required by applicable federal and state laws and regulations."

This language from the RCW clearly allows for mixed waste EHW disposal at Hanford when other applicable laws and regulations are followed. In addition, adding reference to WAC 173-303-700 makes it clear what is meant in the regulations by the EHW facility at Hanford, even though this facility was never built. Lastly, a similar sentence exists in the chemical testing methods publication in Section 2.B.1, 4th paragraph (proposed at page 9 in that document). Ecology should ensure that the regulations and the chemical testing methods document are consistent on this matter.

**Tell us how your recommendation will improve the proposed rule amendments:**

The change will bring the regulations in line with legal disposal requirements and state law.

**Signature:** L. A. Huffman

**Date:** March 5, 2009



**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

**Filed on January 15, 2009**

**First and Last Name:** L. A. Huffman

**Organization or Affiliation:** Department of Energy, Office of River Protection

**Address:** PO Box 450, MSIN H6-60

**City ST Zip:** Richland, WA 99352

**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

<b>Section No.</b>	<u>WAC 173-303-400</u>	<b>Page No.</b>	<u>140-144</u>	<b>Citation No.</b>	<u>Various under -400(3)(c)</u>
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**Please state your comment, question, or recommendation:**

Ecology should have to prepare a new/revised cost benefit and least burdensome analysis for EPA's Burden Reduction Rule (71 FR 16862, April 4, 2006) before finalizing the decision not to adopt many of its provisions.

***Explain your concern:***

Ecology has not provided a summary in the Preliminary Cost Benefit and Least Burdensome Analyses document on EPA's Burden Reduction Rule (71 FR 16862, April 4, 2006) that demonstrates Ecology has complied with the state law requirements for the Administrative Procedures Act in RCW 34.05.328(2). RCW 34.05.328(2) states:

“(2) In making its determinations pursuant to subsection (1)(b) through (h) of this section, the agency shall place in the rule-making file documentation of sufficient quantity and quality so as to persuade a reasonable person that the determinations are justified.”

A review of the Preliminary Cost Benefit and Least Burdensome Analyses shows that Ecology is only incorporating some of EPA's burden reduction rule (page 2 under Purpose). However, Page 4 also states: “There will be qualitative savings from simplifying requirements”. Ecology then follows on page 9 of the qualitative savings section to only discuss the aspect they are proposing to adopt, on groundwater monitoring. There is no discussion on the other many aspects of EPA's Burden Reduction Rule, which Ecology rejects. Finally on page 12 of the Preliminary Cost Benefit and Least Burdensome Analyses, Ecology states:

“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.”

Another alternative would have been to adopt the burden reduction rule in its entirety, but apparently, Ecology failed to even consider that alternative. This statement demonstrates that Ecology did not provide an analysis of each aspect of the Burden Reduction Rule nor did it articulate any rational basis for its claim that the proposed Ecology rule is the least burdensome alternative for those required to comply with it [RCW 34.05.328(1)(e)]. Without the complete analysis, state law requirements have not been met with this rulemaking. The Ecology action is not in accordance with law and lacks a rational basis.

**Tell us how your recommendation will improve the proposed rule amendments:**

Performing a new/revised Preliminary Cost Benefit and Least Burdensome Analyses for each aspect of the Burden Reduction Rule will then comply with state law requirements.

**Signature:** L. A. Huffman

**Date:** March 5, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

**Filed on January 15, 2009**

**First and Last Name:** L. A. Huffman

**Organization or Affiliation:** Department of Energy, Office of River Protection

**Address:** PO Box 450, MSIN H6-60

**City ST Zip:** Richland, WA 99352

**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

<b>Section No.</b>	<u>WAC 173-303-400</u>	<b>Page No.</b>	<u>140-444</u>	<b>Citation No.</b>	<u>Various under - 400(3)(c)</u>
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**Please state your comment, question, or recommendation:**

Ecology should not be able to claim a cost benefit and least burdensome analysis for EPA's Burden Reduction Rule (71 FR 16862, April 4, 2006) is "not applicable" for a federal rule under RCW 34.05.328.

**Explain your concern:**

When EPA publishes a final rule that benefits both the regulators and the regulated community, [i.e., Burden Reduction Rule (71 FR 16862, April 4, 2006)], a State must have an articulated rational basis to explain its failure to adopt such a broadly beneficial regulation. Lacking such a rational basis, the State action appears to be arbitrary. The EPA rule does not alter the strictness of environmental standards; it makes their application more reasonable. The EPA has stated in the federal register on page 16899, "this rule will provide significant benefits to EPA, states, and the regulated community, without compromising human health or the environmental protection." RCW 34.05.328 then provides the foundation for performing the analysis to arrive at the appropriate rule in Washington State. The lack of the legally applicable analysis renders Ecology's rejection of EPA's appear capricious and not in accordance with applicable law.

Ecology then states on page 15 of the Preliminary Cost Benefit and Least Burdensome Analyses "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." In addition, on pages 20-22 of the Preliminary Cost Benefit and Least Burdensome Analyses, the table states "NA" [analysis not required] and "N" [necessary to retain existing rule]. This statement and these classifiers appear inappropriate for the burden reduction rule.

In fact, RCW 34.05.328 does not provide a legal or rational basis for Ecology's assertion that the cost benefit and least burdensome analysis requirement does not apply to adoption or rejection of this EPA rule. None of the seven reasons cited in RCW 34.05.328(5)(b) apply to this circumstance. Furthermore, RCW 19.85 only exempts Ecology from performing a small business economic impact statement in certain circumstances.

After reading EPA's final rule, it appears to this commenter that a proper Preliminary Cost Benefit and Least Burdensome Analysis, performed as required by Washington law, would have concluded Ecology should adopt each of EPA's burden reduction initiatives.

**Tell us how your recommendation will improve the proposed rule amendments:**

Performing a new/revised Preliminary Cost Benefit and Least Burdensome Analyses for each aspect of the Burden Reduction Rule will then comply with state law requirements.

**Signature:** L. A. Huffman

**Date:** March 5, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

Filed on January 15, 2009

**First and Last Name:** L. A. Huffman

**Organization or Affiliation:** Department of Energy, Office of River Protection

**Address:** PO Box 450, MSIN H6-60

**City ST Zip:** Richland, WA 99352

**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** WAC 173-303-515      **Page No.** 153      **Citation No.** -515(3) and (4)

***Please state your comment, question, or recommendation:***

Delete proposed added sentence in each of these subsections.

***Explain your concern:***

The added sentence requires use of the specified methods in WAC 173-303-110(3), as proposed, for all laboratory analyses used in analyzing used oil. We object to Ecology's approach for mandatory use of the methods specified in -110(3), unless those methods are the only one capable of measuring a particular property (e.g. toxicity characteristic leaching procedure). See our comments on -110(3)(a).

***Tell us how your recommendation will improve the proposed rule amendments:***

Incorporates only the methods required for compliance into the Dangerous Waste Regulations.

***Signature:*** L. A. Huffman

***Date:*** March 5, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

## *Dangerous Waste Regulations, Chapter 173-303 WAC*

Filed on January 15, 2009

First and Last Name: L. A. Huffman

Organization or Affiliation: Department of Energy, Office of River Protection

Address: PO Box 450, MSIN H6-60

City ST Zip: Richland, WA 99352

Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. WAC 173-303-515 Page No. 153 Citation No. -515(3) and (4)

***Please state your comment, question, or recommendation:***

Delete proposed added sentence in each of these subsections.

***Explain your concern:***

The proposed amendment makes the use of SW-846 analytical methods mandatory for all generators of used oil that are using the rebuttable presumption and levels used oil burned for energy recovery since this is the only provision where analytical methods are used in the referenced subsections of -515. This is confusing to the regulated community in the following ways:

The generator is required to determine if used oil is mixed with a dangerous waste. In many relevant cases, it is not possible to determine if the used oil has been mixed with a dangerous waste simply by testing the waste; this must be determined through process knowledge. For example, the presence of chromium in excess of designation levels would not necessarily indicate mixing; the chromium may have resulted from use of the oil. This is the responsibility of the generator to determine.

A generator would perform designation on oily waste, i.e. used oil that has been mixed with something else, not on used oil (as defined). See, e.g., Ecology letter of 6/25/97 to Thomas Williams.

In order to demonstrate compliance with the rebuttable presumption regarding halogen levels, Ecology has allowed generators to utilize the Chlor-D-Tect kit for measurement. ("Used Oil Facts", cited above.) While it is an EPA-approved method, it is not listed in SW-846. Hence Ecology is removing this convenient and adequately accurate method for demonstrating compliance prior to burning used oil as fuel.

In addition, Hanford currently uses an EPA 600 series method, method 200.8 for analysis of mercury in used oil. The laboratory recommends use of this method. Used oil analysis should not be limited to SW-846 methods. Ecology has allowed 600 series methods in the Chemical Testing Methods publication on page 15, Section 3.1. Ecology should allow similar flexibility in WAC 173-303.

***Tell us how your recommendation will improve the proposed rule amendments:***

Providing flexibility of methods improves selection of methods appropriate for the matrix, consistent with EPA guidance (70 FR 34545, June 14, 2005) which states: "A major problem with the prescriptive-or mandated methods approach is that it can lead to data of poor quality which can result in an incorrect assessment of compliance."

***Signature:*** L. A. Huffman

***Date:*** March 5, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

**Filed on January 15, 2009**

**First and Last Name:** L. A. Huffman

**Organization or Affiliation:** Department of Energy, Office of River Protection

**Address:** PO Box 450, MSIN H6-60

**City ST Zip:** Richland, WA 99352

**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** WAC 173-303-610      **Page No.** 190 and 194      **Citation No.** -610(6) and (11)

***Please state your comment, question, or recommendation:***

Delete the requirement to use an independent qualified registered professional engineer and replace it with qualified professional engineer.

***Explain your concern:***

Ecology has not adopted Federal rule changes from the burden reduction final rule (Federal Register April 4, 2006) which allow qualified Professional Engineers (PEs) employed by the same company to certify several regulatory-required reports (e.g. certification of closure and post closure). Ecology contends that to do so would "lessen the current level of human and environmental protection that reduce access to available information or that risk a conflict of interest". We do not believe the use of licensed, in-house PEs has the potential to lessen the level of protection, and in some cases may actually increase the level of protection. We agree with EPA's evaluation of the use of in-house PEs (71 FR 16861, 4/6/06, at p. 16869):

"We believe that a professional engineer, regardless of whether he/she is independent is able to give fair and technical review because of the programs established by the state licensing boards. It is not clear to us that an in-house engineer faces a greater economic temptation than an independent engineer seeking to cultivate an ongoing relationship with a client. This is a central mission of state licensing boards. If certifications are provided when the facts do not warrant certification, the professional engineer is subject to penalties, including the loss of license and the possibility of fines. Professional engineers employed by a facility are more familiar with its own particular situation and are in a position to provide more on-site review and oversight of the activity being certified."

Use of independent PEs for this purpose often results in more time and cost to the regulated community. For instance, independent PEs must first be oriented to the facility as well as the specific item(s) they are expected to certify, and they must provide on-site oversight that may be redundant to facility PEs providing oversight of the same activity (e.g. construction).

***Tell us how your recommendation will improve the proposed rule amendments:***

This recommendation will improve the rule just as EPA did in their final rule.

***Signature:*** L. A. Huffman

***Date:*** March 5, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
**Dangerous Waste Regulations, Chapter 173-303 WAC**

Filed on January 15, 2009

First and Last Name: L. A. Huffman

Organization or Affiliation: Department of Energy, Office of River Protection

Address: PO Box 450, MSIN H6-60

City ST Zip: Richland, WA 99352

Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. WAC 173-303-640 Page No. 214 Citation No. -640(4)(h)(i)(ii)

***Please state your comment, question, or recommendation:***

Delete the requirement to use an independent qualified registered professional engineer and replace it with just a qualified professional engineer.

***Explain your concern:***

Ecology has not adopted Federal rule changes from the burden reduction final rule (Federal Register April 4, 2006) which allow qualified Professional Engineers (PEs) employed by the same company to certify several regulatory-required reports (e.g. schedule and procedure for tank assessment). Ecology contends that to do so would lessen the current level of human and environmental protection, reduce access to available information, or risk a conflict of interest. We do not believe the use of licensed, in-house PEs has the potential to lessen the level of protection, and in some cases may actually increase the level of protection. We agree with EPA's evaluation of the use of in-house PEs (71 FR 16861, 4/6/06, at p. 16869):

We believe that a professional engineer, regardless of whether he/she is independent is able to give fair and technical review because of the programs established by the state licensing boards. It is not clear to us that an in-house engineer faces a greater economic temptation than an independent engineer seeking to cultivate an ongoing relationship with a client. This is a central mission of state licensing boards. If certifications are provided when the facts do not warrant certification, the professional engineer is subject to penalties, including the loss of license and the possibility of fines. Professional engineers employed by a facility are more familiar with its own particular situation and are in a position to provide more on-site review and oversight of the activity being certified.

Use of independent PEs for this purpose often results in more time and cost to the regulated community. For instance, independent PEs must first be oriented to the facility as well as the specific item(s) they are expected to certify, and they must provide on-site oversight that may be redundant to facility PEs providing oversight of the same activity (e.g. construction).

***Tell us how your recommendation will improve the proposed rule amendments:***

This recommendation will improve the rule just as EPA did in their final rule.

***Signature:*** L. A. Huffman

***Date:*** March 5, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
**Dangerous Waste Regulations, Chapter 173-303 WAC**

**Filed on January 15, 2009**

**First and Last Name:** L. A. Huffman

**Organization or Affiliation:** Department of Energy, Office of River Protection

**Address:** PO Box 450, MSIN H6-60

**City ST Zip:** Richland, WA 99352

**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** WAC 173-303- **Page No.** 215 **Citation No.** -640(6)

***Please state your comment, question, or recommendation:***

Ecology needs to adopt the burden reduction rule provision to allow weekly inspections instead of daily inspections by adding the words from 40 CFR 264.195(c) and (d) into -640(6).

***Explain your concern:***

Ecology is proposing not to adopt a burden reduction initiative from EPA shifting the visual inspection of tank systems from daily to weekly. Ecology's rationale for not adopting this rule, as given in the Draft Rule Summary, is that reduced inspections could lessen the current level of human or environmental protection, reduce access to available information, or risk a conflict of interest. However, as required under the EPA regulations, a tank system owner or operator must have automated leak detection systems that promptly notify personnel of leaks (or an equivalent workplace practice) in order to qualify for the reduced inspection frequency. As a result, there is no significant potential for reduced protection inherent in the adoption of this rule. Also note that the requirement to inspect data gathered from the monitoring of leak detection equipment remains unchanged, so that a failure of the leak detection equipment is still monitored daily.

For daily inspections to be necessary when a leak would be promptly detected in any event, one must presume that tanks are either subject to instantaneous failure, or that structural damage to a tank such as corrosion can occur so rapidly that daily inspections are needed. If a tank is subject to instantaneous failure, even daily inspections are unlikely to prevent such failures. External corrosion of a tank is unlikely to occur in such a rapid fashion that the integrity will be compromised within a week, unless incompatible materials have been introduced into the tank (or perhaps if the tank has been sabotaged). A well-designed and managed tank system should not be subject to failure from within due to incompatible wastes, and WAC 173-303-640(5)(a) already proscribes the introduction of such materials into any tank system.

At present, Ecology is planning to retain daily inspections as a state-only requirement. We recommend that the requirement be adjusted to weekly frequency, as it has been in the Federal regulations.

***Tell us how your recommendation will improve the proposed rule amendments:***

The allowance of weekly inspection will save the regulated community money on inspection costs while maintaining protection of human health and the environment.

***Signature:*** L. A. Huffman

***Date:*** March 5, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

Filed on January 15, 2009

**First and Last Name:** L. A. Huffman

**Organization or Affiliation:** Department of Energy, Office of River Protection

**Address:** PO Box 450, MSIN H6-60

**City ST Zip:** Richland, WA 99352

**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** WAC 173-303- **Page No.** 10-11 **Citation No.** -645(9)(d) and (g)  
645

***Please state your comment, question, or recommendation:***

We support Ecology's inclusion of the Burden Reduction Rule provision for groundwater monitoring.

***Explain your concern:***

There is no concern with this comment.

***Tell us how your recommendation will improve the proposed rule amendments:***

Finalizing the rule as proposed will provide the stated benefits to groundwater monitoring programs.

***Signature:*** L. A. Huffman

***Date:*** March 5, 2009



**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

**Filed on January 15, 2009**

**First and Last Name:** L. A. Huffman

**Organization or Affiliation:** Department of Energy, Office of River Protection

**Address:** PO Box 450, MSIN H6-60

**City ST Zip:** Richland, WA 99352

**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** WAC 173-303- **Page No.** 77 **Citation No.** -695

***Please state your comment, question, or recommendation:***  
Delete the sentence added to use a qualified registered professional engineer.

***Explain your concern:***

Ecology has not adopted Federal rule changes from the burden reduction final rule (Federal Register April 4, 2006) which allow qualified Professional Engineers (PEs) employed by the same company to certify several regulatory-required reports (e.g. containment building design). Ecology contends that to do so would lessen the current level of human and environmental protection, reduce access to available information, or risk a conflict of interest. We do not believe the use of licensed, in-house PEs has the potential to lessen the level of protection, and in some cases may actually increase the level of protection. We agree with EPA's evaluation of the use of in-house PEs (71 FR 16861, 4/6/06, at p. 16869):

We believe that a professional engineer, regardless of whether he/she is independent is able to give fair and technical review because of the programs established by the state licensing boards. It is not clear to us that an in-house engineer faces a greater economic temptation than an independent engineer seeking to cultivate an ongoing relationship with a client. This is a central mission of state licensing boards. If certifications are provided when the facts do not warrant certification, the professional engineer is subject to penalties, including the loss of license and the possibility of fines. Professional engineers employed by a facility are more familiar with its own particular situation and are in a position to provide more on-site review and oversight of the activity being certified.

Use of independent PEs for this purpose often results in more time and cost to the regulated community. For instance, independent PEs must first be oriented to the facility as well as the specific item(s) they are expected to certify, and they must provide on-site oversight that may be redundant to facility PEs providing oversight of the same activity (e.g. construction).

Note also that the reference to 40 CFR 264.1101(c)(4) is incorrect. The correct reference is 40 CFR 264.1101(c)(2).

***Tell us how your recommendation will improve the proposed rule amendments:***  
This recommendation will improve the rule just as EPA did in their final rule.

***Signature:*** L. A. Huffman

***Date:*** March 5, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

**Filed on January 15, 2009**

**First and Last Name:** L. A. Huffman

**Organization or Affiliation:** Department of Energy, Office of River Protection

**Address:** PO Box 450, MSIN H6-60

**City ST Zip:** Richland, WA 99352

**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** WAC 173-303- **Page No.** 74 **Citation No.** -690(3)  
690

***Please state your comment, question, or recommendation:***

Delete this proposed addition.

***Explain your concern:***

The added sentence requires use of the specified methods in WAC 173-303-110(3)(a), as proposed, for all laboratory analyses used to determine whether a waste is subject to Subpart AA. We object to Ecology's approach for mandatory use of the methods specified in -110(3), unless those methods are the only one capable of measuring a particular property (e.g. toxicity characteristic leaching procedure). See our comments on -110(3)(a). In addition, this sentence only allows SW-846 test methods [as referenced in subsection (3)(a)], and not the other test methods incorporated in -110(3)(b)-(h). Some of these test methods are incorporated at -110(3) for the express purpose of meeting the requirements of 40 CFR 264 Subpart AA, incorporated by reference; see -110(3)(g)(i) through (viii). All of these requirements have been preserved in 40 CFR 260.11; hence, if Ecology intends to preserve the methods of compliance with the requirements incorporated by reference, this addition is unnecessary.

***Tell us how your recommendation will improve the proposed rule amendments:***

Incorporates only the methods required for compliance into the Dangerous Waste Regulations.

***Signature:*** L. A. Huffman

***Date:*** March 5, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

Filed on January 15, 2009

**First and Last Name:** L. A. Huffman

**Organization or Affiliation:** Department of Energy, Office of River Protection

**Address:** PO Box 450, MSIN H6-60

**City ST Zip:** Richland, WA 99352

**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** WAC 173-303- **Page No.** 75 **Citation No.** -691(3)  
691

***Please state your comment, question, or recommendation:***



# Washington State Dangerous Waste Regulations Chapter 173-303 WAC Draft Amendments

## Comment Form and Instructions

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**Instructions:** Complete one form for each comment. Be clear and brief. Submit written comments by **April 25, 2008** to Chipper Hervieux by:

**US Mail**

Washington State  
Department of Ecology – HWTR  
PO Box 47600  
Olympia WA 98504-7600

**Fax**

(360) 407-6715

**E-mail**

Pher461@ecy.wa.gov

**First Name: Raymond**

---

**Last Name: Lam**

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**Organization or Affiliation: Silk Road Environmental**

---

**Address: 225102 E Donelson Rd**

---

**City/State/Zip Code: Kennewick/WA/99337**

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**Citation (Example: WAC 1730-303-071(3)(oo)): WAC 173-303-017(5)(b)(ii)(B) through (G) 040- Definition Performance Track member facility 140(2)(c)**

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**State your comment, question, or recommendation.** Explain your concern. How will your recommendation improve the proposed rule amendments? I hope Ecology will reconsider adopting the provisions for Performance Track Members. These members adopt voluntary improvements beyond compliance, and this should be encouraged. Given the small number of members within the State, I cannot see uniformity being a problem. In addition, given Ecology's role in encouraging ISO 14001 or other Environmental Management Systems, this would seem in line with its existing policies. Strict enforcement was needed to get us into compliance, but the next generation of pollution control needs to be collaborative, not adversarial.

**Provide language for your recommended change or addition.**

Simply that Ecology will adopt the provisions cited above.

**Signature:** Raymond Lam

**Date:** Feb 4, 2009

March 5, 2009

WSDOE HWTR  
Robert Rieck  
PO Box 47600  
Olympia, WA 98504-7600

RE: Proposed Rule Adoption

Dear Mr. Rieck:

Pursuant to our conversation I am writing to express concern over three issues in the rules proposed to be adopted by the state.

The first is under the State-Initiated Rule Amendment WAC 173-303-045 (pg 14). Currently this section of the WAC reads as follows:

WAC 173-303-045

(1) "Any references in this chapter to any parts, subparts, or sections from EPA's hazardous waste regulations, including 40 CFR Parts 260 through 280 and Part 124, are in reference to those rules as they existed on July 1, 2003, ..."

It is my concern that amending this section to change the referenced date of rules from "as they existed on July 1, 2003" to "as they existed on July 1, 2007" may inadvertently adopt some of the EPA's lesser protective regulations put in place since 2003, including rules issued under the RCRA Burden Reduction Initiative (BRI).

As we discussed, it is not the intent of the State of Washington to adopt the BRI in its entirety. This is evidenced by the State's careful enumeration of citations to retain under the WAC, including LDR certifications and manifesting requirements for waste-derived products. However, there are other regulatory citations that may be at risk of being lost, specifically as pertain to record retention.

Under current Washington State regulation records must be retained for a period of 5 years post-closure. The BRI reduces the record retention time under 40 CFR 264.73 and 265.73 to three years, and once adopted – or in this case referenced, since the BRI became effective in April 2006 – allows for the immediate destruction of records. Records which otherwise must be retained under current law. These records include waste analysis, certain monitoring, testing and analytical data, waste determinations, etc. collected over the entire operational period of the hazardous waste facility and which are needed to keep a facility accountable for the entire life of a hazardous waste, i.e., "cradle to grave". To allow generators, TSDs or others to destroy any of these records (evidence) diminishes the legal rights of individuals who may have been harmed by hazardous substances released by these facilities, and undermines their right to legal remedy which may depend on access to these records. Please do not remove the requirements for record retention for any facility or any activity managed under the State Dangerous Waste regulations.

My second concern regards adopting the term “dangerous waste broker” (WAC 303-180.7(b)(4)). Please do not legitimize this activity which was not anticipated under federal statute. What requirements does a “dangerous waste broker” have under Washington’s Dangerous Waste regulations? If a broker receives hazardous waste or arranges for its transport, then they should be subjected to regulation just as any other handler would, specifically, financial assurances. To do otherwise, allows someone to handle hazardous waste without consequences for their actions.

Suggested language: (iv) Dangerous waste broker or other preparer who prepares or arranges shipments of dangerous waste for transportation provided they meet all requirements to which a generator is subject including financial assurances.

My third concern, regards proper implementation of CERCLA 108(b) which requires that facilities, including generators, “establish and maintain evidence of financial responsibility consistent with the degree, and duration of risk associated with the production, transportation, treatment, storage, or disposal of hazardous substances.” 42 USC 9608 (b)(1). Earth Justice prevailed in a recent court decision requiring that this section of the federal statute, required to be adopted by the states, be implemented by the EPA.

Please reflect this change in policy in your regulations.

Finally, I would urge you not to adopt any rule promulgated under non-HSWA authority.

Thank you for the opportunity to comment. I appreciate the hard work that has gone into retaining some key protections for the citizens of Washington.

Sincerely,

Patricia Anne Martin  
Safe Food and Fertilizer  
(509) 787-4275

**From:** Llewellyn Matthews [mailto:llewellyn@nwpulpandpaper.org]  
**Sent:** Wednesday, March 04, 2009 2:12 PM  
**To:** Rieck, Robert (ECY)  
**Cc:** Larry LaFleur  
**Subject:** Re: Proposed amendments to the dangerous waste regulations

Robert,

NWPPA respectfully requests an additional 90 days to prepare comments on the proposed rules. While this may seem like an unusually long time, the need stems from the concern that we need to verify, through lab testing, the effect of the proposed test methods. We believe the changes will result in designation of useful materials as dangerous wastes that have never been designated in the past.

Specifically Ecology is proposing to remove existing references to the methods for determining if wastes are reactive and in lieu of current language, is proposing ASTM D4978-95 that includes two alternative methods. This proposal effectively modifies the previous definition of reactive waste.

We may have substances that should be evaluated but have not yet found a laboratory familiar with the method(s). NCASI, the industry technical association, feels more time is needed to either find a lab that is familiar with the method or to gear up to run the tests.

In addition, we are concerned that Ecology is proposing to require use of SW-846 methods that EPA plans to update/change without going through rulemaking. We no longer have the assurance that these methods and changes will be peer reviewed, or if they are, that the reviews can be made available. Furthermore, this proposal may be an Administrative Procedures Act issue in that it would adopt into state rules prospective changes of another entity.

A better approach might be for Ecology to create a table of methods, including revision and publication data, that Ecology has reviewed and considers acceptable and include that table in the proposed regulation. Thereafter any changes would go through state rulemaking procedures.

Please feel free to call me or write me with any questions.

Thank-you very much for your consideration of our request for an extension of time.

--

Llewellyn Matthews  
Executive Director  
Northwest Pulp and Paper Association  
1300 114th Avenue SE, Suite 200  
Bellevue, WA 98004  
Office: 425-455-1323

Cell: 425-503-9787

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

**Filed on January 15, 2009**

**First and Last Name:** Tony McKarns

**Organization or Affiliation:** Department of Energy, Richland Operations Office

**Address:** PO Box 500, MSIN A5-15

**City ST Zip:** Richland, WA 99352

**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** CTM Chapter 1 **Page No.** 2 **Citation No.** 1.2, 4<sup>th</sup> paragraph

***Please state your comment, question, or recommendation:***

Reword the last two sentences of this paragraph as follows: "There are two categories of persistent dangerous wastes: halogenated organic compounds (HOC) and polycyclic aromatic hydrocarbons (PAH). HOC and PAH are discussed in Chapter 3."

***Explain your concern:***

The wording proposed is confusing and implies that there may be more categories of persistent dangerous waste than are discussed.

**Tell us how your recommendation will improve the proposed rule amendments:**

Clarity in guidance

**Signature:** Tony McKarns

**Date:** March 4, 2009



**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

Filed on January 15, 2009

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**Section No.** CTM Chapter 1    **Page No.** 2    **Citation No.** 1.3, 1<sup>st</sup> paragraph

**Please state your comment, question, or recommendation:**

Reword the first two sentences of this paragraph to read: "In 2005, EPA deleted use of certain SW-846 test methods to designate dangerous waste. Ecology has decided to continue to require the use of these methods."

**Explain your concern:**

The statement "...SW-846 methods were no longer required by RCRA..." is factually incorrect. EPA retained use of SW-846 in the final rule (70 FR 34538, 6/14/2005) for methods that measure "method-defined parameters" (Table 3, Page 34547). EPA states on Page 34547 that "It is the application of a method in a regulation that determines whether a method is being used to analyze a required method-defined parameter – not simply whether the method is listed in §260.11."

Further, the imposition of SW-846 methods in the manner proposed here actually adds new requirements that did not previously exist. For example, in *Chemical Testing Methods for Designating Dangerous Waste*, Section 3.1, the third paragraph states *Washington State continues to require SW-846 methods for all designation analyses unless otherwise specified.* (Emphasis added.) However, in many cases, non-method-defined parameters methods in SW-846 have never been mandatory under either the Federal or the State program. Ecology's revisions to WAC 173-303-110 and to *Chemical Testing Methods for Designating Dangerous Waste* make these non-method-defined parameters mandatory. None of Ecology's technical or financial analyses of this change has considered this impact.

IF Ecology does not adopt the cited Methods Innovation Rule, re-institute the specific SW-846 test methods that were deleted in that rule. These methods were clearly identified in the final rule (Table 4, Page 34548). Ecology's current approach results in a significant, possibly unanticipated, impact on the regulated community.

We also note that not "All retained SW-846 Test Methods are discussed in Chapter 3". This statement may need to be revised or deleted. See our comments on Chapter 3.

**Tell us how your recommendation will improve the proposed rule amendments:**

Minimizes unnecessary impact on the regulated community; clarifies what SW-846 methods remain mandatory under State rules.

**Signature:** Tony McKarns

**Date:** March 4, 2009

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**Section No.** CTM Chapter 1      **Page No.** 2 & 3      **Citation No.** Pg 2: §1.2, 4<sup>th</sup> paragraph  
Pg 3: endnote 3

**Please state your comment, question, or recommendation:**  
Remove the sentence in Section 1.2, and revise Endnote 3 to be consistent with past rulemakings on sufficient knowledge/existing knowledge as follows:

- Chapter 1, 1.2 Dangerous Waste Characteristics and Criteria, 4<sup>th</sup> paragraph: delete the following sentence:  
This sentence is not needed in this paragraph, because Endnote 3 is attached to the preceding sentence.
- Chapter 1 Endnote 3: “Book designation is allowable with existing knowledge of waste. The generator must attempt to understand the process that created the waste and attempt to identify the toxic constituents and associated concentrations for waste designation purposes. According to WAC 173-303-100(5)(a), if a person knows only some of the toxic constituents in the waste or only some of the constituent concentrations, and if the waste is undesignated for those known constituents or concentrations, then the waste is not designated for toxicity under WAC 173-303-100(5). More information on book designation can be found in WAC 173-303-100.”

**Explain your concern:**  
The concern is that there are a few places in the document where Ecology’s language on book designation is different from what Ecology has stated in the 1993 past responsiveness summary. Ecology’s proposed changes appear to be a policy shift on when book designation is allowable. Ecology has not articulated any book designation policy change in this rulemaking. These issues pertain to what is considered 'sufficient' when reading WAC 173-303-100(5) and -100(5)(a).

- (5) Toxicity criteria. Except as provided in WAC 173-303-070 (4) or (5), a person must determine if a solid waste meets the toxicity criteria under this section by following either the instructions for book designation, **when his knowledge of the waste is sufficient**, or by testing the waste using the biological testing methods adopted under WAC 173-303-110(3).
- (a) Except as provided in WAC 173-303-070(4), **if a person knows only some of the toxic constituents in the waste or only some of the constituent concentrations, and if the waste is undesignated for those known constituents or concentrations, then the waste is not designated for toxicity under this subsection.**

In a past responsiveness summary, Publication 93-92, October 1993, Ecology asserts the following with respect to designation requirements for state-only criteria:

*“The proposed rule integrates both concepts into a single state-only section called ‘criteria.’ **Under the proposed criteria section a generator typically needs only to apply existing knowledge of waste constituents and concentrations when designating under this section, including carcinogens** (see proposed WAC 173-303-100(5)(a), (6)(a) & (7)(b)). A generator may choose or be required by Ecology to determine the applicable constituents and concentrations, but a generator is not automatically required to designate wastes per the criteria.”*

**Note:** The quote above was part of Ecology’s response to Comment 22, which stated: *Several commenters’*

expressed concern that the proposed rule **requires** designation by the criteria". (All emphases are in original printing)

Further understanding of this provision as intended by Ecology is provided in response to Comment 27, where Ecology clarifies the intent of WAC 173-303-100 as follows:

*A waste that is either designated or not designated in accordance with the requirements set forth in the proposed dangerous waste criteria section, WAC 173-303-100, would be considered to be "properly determined" (see previous comment) under that section in the proposed rule. If the criteria section does not require specific knowledge regarding constituents or concentrations, then existing knowledge is sufficient.*

The 'previous comment' referenced above by Ecology was Comment 26, where Ecology clarified the expressed concern by saying: *As the commenter pointed out, the word 'designate' means that a waste **has been determined to be a dangerous waste** under the rule. The proposed rule will be amended such that the words "proper designation" will be converted to "determining whether or not it designated and/or designated properly in WAC 173-303-070(3)(c)(ii)(B) and WAC 173-303-070(4). (emphasis added)*

Hanford is aware that Ecology may require generators to test their waste in accordance with WAC 173-303-070(4). However, such testing is not considered a reason for retroactive changes to dangerous waste criteria determinations performed using available knowledge, as noted in the following text from the Ecology response to Comment 33:

*If a solid waste stream is determined not to be designated as a toxic dangerous waste using book designation method, and is later determined by bioassay to be designated, the designation would not change retroactively, only from the time that the new information became known. Waste, which had been disposed of prior to the new information becoming available, would not be regulated as dangerous waste. Any newly generated, or any remaining on-site, would be designated...*

So when completing a book designation under WAC 173-303-100(5), existing knowledge is sufficient, and a generator is not obligated to seek additional information on a waste in order to complete a book designation.

**Tell us how your recommendation will improve the proposed revisions:**

The change will clarify testing is not required to perform a book designation, consistent with past rulemaking efforts on WAC 173-303, and makes Section 1.2 consistent with Section 3.7.

**Signature:** Tony McKarns

---

**Date:** March 4, 2009

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**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***  
**Filed on January 15, 2009**

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 **State**

**Section No.** CTM Chapter 1    **Page No.** 2    **Citation No.** 1.3

**Please state your comment, question, or recommendation:**

Ecology should add a statement to the text saying that the list of constituents in Appendix 5 will remain consistent with EPA's list of constituents in 40 CFR 264, Appendix IX.

**Explain your concern:**

In Section 1.3, second paragraph, Ecology discusses the 40 CFR 264, Appendix IX table contained in Appendix 5. The commenter is concerned Ecology will add constituents to the appendix when EPA has not added them to 40 CFR 264, Appendix IX.

**Tell us how your recommendation will improve the proposed revisions:**

With Ecology, making a commitment to keep the lists of constituents the same, Ecology will minimize the problems that can be created during enforcement activities and when EPA looks at the state's authorized program.

**Signature:** Tony McKarns

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**Section No.** CTM Chapter 2    **Page No.** 4-13    **Citation No.** N/A

**Please state your comment, question, or recommendation:**  
Ecology should change the numbering in Section 2 to match Section 3. Specifically, change the "A" and "B" sections to numbers.

**Explain your concern:**  
The "A" and "B" numbering make it difficult to find information in Section 2.

**Tell us how your recommendation will improve the proposed revisions:**  
Improve the usefulness of the document.

**Signature:** Tony McKarns

**Date:** March 4, 2009

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**Section No.** CTM Chapter 2      **Page No.** 4 & 13      **Citation No.** Pg. 4, 2.A.1.3  
Pg. 13, endnote 1

**Please state your comment, question, or recommendation:**

Replace Section A.1.3, 2<sup>nd</sup> paragraph and Endnote 2, with guidance that supports the new regulatory definition of oxidizer; and delete information about NFPA unless a correlation exists to the International Fire Code.

**Explain your concern:**

It appears Ecology needs to take a new approach to oxidizers in the *Chemical Testing Methods for Designating Dangerous Waste*, because the NFPA approach to classification of oxidizers does not line up with the new approach being taken for oxidizers in WAC 173-303-090(5)(a)(iv).

Ecology has not identified a correlation between NFPA oxidizers and the definition in the Dangerous Waste Regulations. NFPA uses the term 'combustible material' in the definitions of their classes. The WAC text talks about combustion of organic matter. There is also no information to support a position that all four classes of oxidizer under NFPA meet the WAC text above.

Also, the container management regulations in WAC 173-303-630(8) rely in the International Fire Code instead of the NFPA. Guidance in this document should be based on oxidizers recognized by the International Fire Code.

**Tell us how your recommendation will improve the proposed revisions:**

Aligning guidance with regulatory requirements will improve compliance.

**Signature:** Tony McKarns

**Date:** March 4, 2009



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**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** CTM Chapter 2 **Page No.** 5 **Citation No.** A.1.4.2

***Please state your comment, question, or recommendation:***

A reference to EPA methods for identifying ignitable solids should be included in Section A.1.4.2 or added to Section 3.

***Explain your concern:***

EPA has established SW-846 Methods 1030 and 1050 as indicator tests for identifying ignitable solids. These methods should be referenced in the *Chemical Testing Methods for Designating Dangerous Waste* as tests that a generator may use to indicate whether a waste should be designated as an ignitable solid.

***Tell us how your recommendation will improve the proposed revisions:***

Provide generators with the current EPA-recognized methods for designating wastes as ignitable solids.

**Signature:** Tony McKarns

**Date:** March 4, 2009



**RULE-MAKING PROPOSAL COMMENT FORM**  
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 **State**

**Section No.** CTM Chapter 2      **Page No.** 5      **Citation No.** A.1.4.2

**Please state your comment, question, or recommendation:**

The text Regulatory Definition, Ignitable Solids should repeat verbatim the text from WAC 173-303-090(5)(a)(ii). Replace the word "catching" with "causing". Add the word "and" after Item 2 and before Item 3. Item 1 and Item 2 do not operate independently of Item 3.

**Explain your concern:**

This text within the *Chemical Testing Methods for Designating Dangerous Waste* does not match the text in WAC 173-303. Ecology did not provide an explanation for this, and the reader suspects Ecology is trying to "plain talk" the regulations. Ecology should not plain talk the regulations due to the potential for misinterpretations, and for each place in *Chemical Testing Methods for Designating Dangerous Waste* where WAC 173-303 language is used, WAC 173-303 language should be repeated verbatim.

**Tell us how your recommendation will improve the proposed revisions:**

Having the *Chemical Testing Methods for Designating Dangerous Waste* text match text in the WAC 173-303 will improve compliance and help ensure the regulations are being properly implemented.

**Signature:** Tony McKarns

**Date:** March 4, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
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**Section No.** CTM Chapter 2    **Page No.** 5    **Citation No.** A.1.4.4

***Please state your comment, question, or recommendation:***

A reference to EPA methods for identifying oxidizing solids should be included in Section A.1.4.4 or added to Section 3.

***Explain your concern:***

EPA has established SW-846 Method 1040 as an indicator test for identifying oxidizing solids. This method should be referenced in the *Chemical Testing Methods for Designating Dangerous Waste* as a test that a generator may use to indicate whether a waste should be designated under this criterion.

***Tell us how your recommendation will improve the proposed revisions:***

Provide generators with the current EPA-recognized method for designating wastes as oxidizing solids.

**Signature:** Tony McKarns

**Date:** March 4, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

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**Section No.** CTM Chapter 2      **Page No.** 6      **Citation No.** A.3.1

**Please state your comment, question, or recommendation:**

The text on Reactivity introduction. Delete Items 1 through 6, since the regulatory definition is repeated in Section A.3.4 and rely on the text in Section A.3.4, and also matches the text from WAC 173-303-090(7)(a)(i) through (viii).

**Explain your concern:**

This text within the *Chemical Testing Methods for Designating Dangerous Waste* does not match the text in WAC 173-303. Ecology did not provide an explanation for this, and the reader suspects Ecology is trying to “plain talk” the regulations. Ecology should not plain talk the regulations due to the potential for misinterpretations, and for each place in *Chemical Testing Methods for Designating Dangerous Waste* where WAC 173-303 language is used, WAC 173-303 language should be repeated verbatim.

**Tell us how your recommendation will improve the proposed revisions:**

Having the *Chemical Testing Methods for Designating Dangerous Waste* text match text in the WAC 173-303 will improve compliance and help ensure the regulations are being properly implemented.

**Signature:** Tony McKarns

**Date:** March 4, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
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**Section No.** CTM Chapter 2    **Page No.** 7    **Citation No.** A.3.2

***Please state your comment, question, or recommendation:***

To be consistent with EPA interpretation of water reactive wastes, delete the last paragraph in Section A.3.2.

***Explain your concern:***

Identification of sodium hydroxide and concentrated sulfuric acid in Section A.3.2 is confusing. These substances are not considered "water reactive" under EPA's interpretation of the D003 category. EPA has stated that water reactive wastes are generated on a sporadic basis and generally in low volumes. Most generators of reactive wastes are aware that their wastes possess this property and require special handling since these wastes are dangerous to the generators' own operation and rarely generated from unreactive feedstocks. Potential examples of water reactive wastes identified by EPA include agents GB (isopropyl methyl phosphonofluoridate), VX (Ethyl-S-diiisopropyl aminoethyl methyl phosphonothidoate), and HD (Bis-2-chloroethyl sulfide). There are no suitable test methods for identifying water reactive wastes.

In order to maintain consistency with the intended EPA designation of D003 water reactive wastes, the discussion of sodium hydroxide and concentrated sulfuric acid should be deleted from Section A.3.2. (For further information on EPA's interpretation of "water reactive" wastes, refer to 55 Federal Register 22553, 54 Federal Register 48426, 45 Federal Register 33110, and 43 Federal Register 58952).

***Tell us how your recommendation will improve the proposed revisions:***

Maintain consistency with EPA interpretation of federally coded waste designations.

**Signature:** Tony McKarns

**Date:** March 4, 2009

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**Section No.** CTM Chapter 2      **Page No.** 8      **Citation No.** A.4.2, 3<sup>rd</sup> paragraph

**Please state your comment, question, or recommendation:**

Revise the last two sentences of A.4.2, third paragraph to read: Table 3.5.1 (Chapter 3) lists the regulatory thresholds for the 40 TCLP constituents and identifies potential SW-846 methods for each constituent. Other methods may be equally reliable.”

**Explain your concern:**

Ecology’s proposed wording makes the use of specific analytical methods for analysis of the TCLP extract mandatory. As noted in our comments at WAC 173-303-110(3)(a) and *Chemical Testing Methods for Designating Dangerous Waste*, Section 1.3, this actually imposes new testing method requirements on the regulated community.

**Tell us how your recommendation will improve the proposed rule amendments:**

Preserve flexibility in use of test methods for compliance into the Dangerous Waste Regulations.

**Signature:** Tony McKarns

**Date:** March 4, 2009

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**Section No.** CTM Chapter 2      **Page No.** 9      **Citation No.** B.1, Item 3

**Please state your comment, question, or recommendation:**

Reword the text to match WAC 173-303-070(5)(c)(i): "The waste designates as state-only DW and will be burned for energy recovery as used oil, the generator must determine if it also designates as an EHW. Used oil cannot be burned for energy recovery if it is EHW or contains PCBs above 2ppm."

**Explain your concern:**

This text within the *Chemical Testing Methods for Designating Dangerous Waste* does not match the text in WAC 173-303. Ecology did not provide an explanation for this, and the reader suspects Ecology is trying to "plain talk" the regulations. Ecology should not plain talk the regulations due to the potential for misinterpretations, and for each place in *Chemical Testing Methods for Designating Dangerous Waste* where WAC 173-303 language is used, WAC 173-303 language should be used verbatim.

**Tell us how your recommendation will improve the proposed revisions:**

Having the *Chemical Testing Methods for Designating Dangerous Waste* text match text in the WAC 173-303 will improve compliance and help ensure the regulations are being properly implemented.

**Signature:** Tony McKarns

**Date:** March 4, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

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**Indicate if your comment is on the federal or state requirements:**  **Federal**  
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**Section No.** CTM Chapter 2      **Page No.** 9      **Citation No.** B.1, Item 4

***Please state your comment, question, or recommendation:***  
Revise Section B.1, Item 4 to reflect provisions of State law regarding disposal of EHW.

***Explain your concern:***  
Item 4, appropriately identifies WAC 173-303-140(5), (6), (7) as allowing land disposal of EHW under certain circumstances, but fails to acknowledge State law at RCW 70.105.050(2) allowing for disposal of radioactive EHW provided certain conditions are met. Item 4, last sentence should be revised to include the State law provision.

***Tell us how your recommendation will improve the proposed revisions:***  
Reflect provisions of State law.

**Signature:** Tony McKarns

**Date:** March 4, 2009

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**Section No.** CTM Chapter 2      **Page No.** 10      **Citation No.** B.1.2, 1<sup>st</sup> paragraph

**Please state your comment, question, or recommendation:**

Change text to read:

In order to avoid regulating low concentrations and to meet statutory requirements,<sup>15</sup> ...

**Explain your concern:**

Ecology is describing a statutory provision, yet identifies it as a regulatory requirement. Ecology should change the term to reflect reference to the RCW for Endnote 15.

**Tell us how your recommendation will improve the proposed revisions:**

Improves understanding that the sentence is describing a statute

**Signature:** Tony McKarns

**Date:** March 4, 2009



**RULE-MAKING PROPOSAL COMMENT FORM**  
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**Section No.** CTM Chapter 2      **Page No.** 10      **Citation No.** B.1.2, 2<sup>nd</sup> paragraph

**Please state your comment, question, or recommendation:**

For EHW designation of PAHs, change waste code "WP01" to "WP03" to match WAC 173-303-100(6).

**Explain your concern:**

The waste code provided does not match WAC 173-303-100(6). For each place in *Chemical Testing Methods for Designating Dangerous Waste* where WAC 173-303 language is used, WAC 173-303 language should be repeated verbatim.

**Tell us how your recommendation will improve the proposed revisions:**

Having the *Chemical Testing Methods for Designating Dangerous Waste* text match text in the WAC 173-303 will improve compliance and help ensure the regulations are being properly implemented.

**Signature:** Tony McKarns

**Date:** March 4, 2009

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**Section No.** CTM Chapter 2      **Page No.** 11      **Citation No.** B.3.2, 2<sup>nd</sup> bullet, & last paragraph

**Please state your comment, question, or recommendation:**

The text in Section B.3.2.2, on the definition of persistence and the last paragraph should repeat verbatim the definition of persistence in WAC 173-303-040 (Ecology cannot change the half-life from 365 days to 60-days (2 months) without a regulatory change).

**Explain your concern:**

This text within the *Chemical Testing Methods for Designating Dangerous Waste* does not match the text in WAC 173-303. Ecology did not provide an explanation for this, and the definition in WAC 173-303-040 contains different text on half-life. For each place in *Chemical Testing Methods for Designating Dangerous Waste* where WAC 173-303 language is used, WAC 173-303 language should be repeated verbatim.

**Tell us how your recommendation will improve the proposed revisions:**

Having the *Chemical Testing Methods for Designating Dangerous Waste* text match text in the WAC 173-303 will improve compliance and help ensure the regulations are being properly implemented.

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**First and Last Name:** Tony McKarns

**Organization or Affiliation:** Department of Energy, Richland Operations Office

**Address:** PO Box 500, MSIN A5-15

**City ST Zip:** Richland, WA 99352

**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** CTM Chapter 3    **Page No.** 15    **Citation No.** 3.1, 3<sup>rd</sup> paragraph

**Please state your comment, question, or recommendation:**

Delete the first sentence of this paragraph.

**Explain your concern:**

This sentence requires the use of SW-846 methods for "all designation analyses". As noted in our comments on WAC 173-303-110(3)(a) and *Chemical Testing Methods for Designating Dangerous Waste*, Section 1.3, this is inaccurate, misinterprets the intent of the Methods Innovation Rule, and imposes new requirements on the regulated community.

**Tell us how your recommendation will improve the proposed rule amendments:**

Preserve flexibility in methods required for compliance with the Dangerous Waste Regulations.

**Signature:** Tony McKarns

**Date:** March 4, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

**Filed on January 15, 2009**

**First and Last Name:** Tony McKarns

**Organization or Affiliation:** Department of Energy, Richland Operations Office

**Address:** PO Box 500, MSIN A5-15

**City ST Zip:** Richland, WA 99352

**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** CTM Chapter 3      **Page No.** 15      **Citation No.** 3.1, list of methods

**Please state your comment, question, or recommendation:**

Add Item 8 to the list of methods "Analytical Methods for Petroleum Hydrocarbons, Ecology publication" ECY 97-602, June 1997, to the list, because the Ecology publication contains methods used for soil and water analyses.

**Explain your concern:**

The concern is that the list does not contain all the methods Ecology should recognize. At the bottom of page 15, Ecology has included a list of 7 methods that are recognized. We encourage Ecology to include this list, however, Ecology should also add the "Analytical Methods for Petroleum Hydrocarbons", Ecology publication ECY 97-602, June 1997, to the list, because the Ecology publication contains methods used for soil and water analyses.

**Tell us how your recommendation will improve the proposed revisions:**

Adding the Ecology publication to the list will add another analytical tool to the list.

**Signature:** Tony McKarns

**Date:** March 4, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

**Filed on January 15, 2009**

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**Address:** PO Box 500, MSIN A5-15

**City ST Zip:** Richland, WA 99352

**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** CTM Chapter 3      **Page No.** 15      **Citation No.** 3.1, list of methods

**Please state your comment, question, or recommendation:**

We support Ecology providing a list of methods that are recognized in addition to SW-846 methods. We encourage Ecology to make sure this concept is included in the final WAC 173-303 text as well.

**Explain your concern:**

The concern, which has been raised without this list, is that rulemaking petitions would have to be processed at the expense of the regulators and the regulated community to be able to use other nationally recognized standards.

**Tell us how your recommendation will improve the proposed revisions:**

Maintaining this list will save money by minimizing rulemaking petitions.

**Signature:** Tony McKarns

**Date:** March 4, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

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**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** CTM Chapter 3      **Page No.** 17      **Citation No.** 3.4, 2<sup>nd</sup> paragraph

**Please state your comment, question, or recommendation:**

Change the 2<sup>nd</sup> paragraph to read:

Although narrow-range pH paper can be purchased with a distinct color change for every 0.5 pH unit, pH paper is not as accurate as pH meters. For this reason, pH paper cannot be used to designate definitively whether a waste is corrosive or non-corrosive. Narrow range pH paper can be used, however to confirm knowledge about a waste. In a chemical laboratory, the pH is typically determined using a pH meter. A pH meter is a voltage-measuring device attached to a pair of electrodes. When the tips of the electrodes are placed in a solution, the pH of the solution shows on the meter. The pH meter is calibrated using predetermined standards. pH readings are only applicable for aqueous solutions.

**Explain your concern:**

The paragraph makes a statement about pH paper, which should be qualified. Although we agree that pH paper is not a “method”, it is a tool that can be used to confirm knowledge about a waste. For example, if water is suspected to be rain water under a nitric acid tank, narrow range pH paper can easily confirm that the liquid is not a release of nitric acid. Ecology should add a sentence to address this situation.

**Tell us how your recommendation will improve the proposed revisions:**

The text will clarify how pH paper can be used as part of a generator’s knowledge.

**Signature:** Tony McKarns

**Date:** March 4, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

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**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** CTM Chapter 3      **Page No.** 19      **Citation No.** Table 3.6

**Please state your comment, question, or recommendation:**

Consistent with the comment provided on Section A.4.2, change the last column heading of the table to read: "Potential SW-846 Test Methods After 1311".

**Explain your concern:**

Ecology's proposed wording makes the use of specific analytical methods for analysis of the TCLP extract mandatory. As noted in our comments at WAC 173-303-110(3)(a) and *Chemical Testing Methods for Designating Dangerous Waste*, Section 1.3, this actually imposes new testing method requirements on the regulated community. The testing requirements are new because Method 1311 does not specify by what method the TCLP extract needs to be tested.

**Tell us how your recommendation will improve the proposed revisions:**

Preserve flexibility in use of test methods for compliance into the Dangerous Waste Regulations.

**Signature:** Tony McKarns

**Date:** March 4, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

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**Address:** PO Box 500, MSIN A5-15

**City ST Zip:** Richland, WA 99352

**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** CTM Chapter 3    **Page No.** 20    **Citation No.** 3.7

**Please state your comment, question, or recommendation:**

Change Item one to reflect that book designations can be accomplished with other existing knowledge besides product information. Change the text to read: "1. Book designate using existing knowledge (for example product information, records, testing data, etc)."

**Explain your concern:**

Ecology should not limit the information used to book designate a waste to "product information". Many sources of information (knowledge) should be allowed for use in a book designation. Examples of these sources of information include:

- Mass balance from a controlled process that has a specified input for a specified output
- Material safety data sheets (MSDSs) on unused chemical products
- Test data from a surrogate sample
- Analytical data on the waste or a waste from a similar process
- Interview information
- Logbooks
- Procurement records
- Qualified analytical data
- Processes and/or methods
- Process flow charts
- Inventory sheets
- Vendor information
- Mass balance from an uncontrolled process (e.g., spill cleanup)
- Mass balance from a process with variable inputs and outputs (e.g., washing/cleaning methods).

Modifying the text will not limit a book designation to product information.

**Tell us how your recommendation will improve the proposed revisions:**

Preserves existing flexibility for using information in book designations.

**Signature:** Tony McKarns

**Date:** March 4, 2009



**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

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**Organization or Affiliation:** Department of Energy, Richland Operations Office

**Address:** PO Box 500, MSIN A5-15

**City ST Zip:** Richland, WA 99352

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 **State**

**Section No.** CTM Chapter 3      **Page No.** 20-21      **Citation No.** 3.7, 4<sup>th</sup> paragraph

**Please state your comment, question, or recommendation:**  
Delete references to ECOTOX and HSDB.

**Explain your concern:**

These references have data quality issues and their mandatory use results in a large number of new wastes being regulated pursuant to the Dangerous Waste Regulations. See our comments on WAC 173-303-100(2), (3) and (5).

**Tell us how your recommendation will improve the proposed rule amendments:**

Limits use of inaccurate or inapplicable information in designation of state-only dangerous waste.

**Signature:** Tony McKarns

**Date:** March 4, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
**Dangerous Waste Regulations, Chapter 173-303 WAC**  
**Filed on January 15, 2009**

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**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** CTM Chapter 3      **Page No.** 29      **Citation No.** 3.8.8.3

**Please state your comment, question, or recommendation:**

Delete Section 3.8.8.3.

**Explain your concern:**

This guidance is likely to be very difficult to implement for the regulated community. Most polymers contain an additive of some kind. Many of the types of additives described in this section are manufacturer's proprietary information and not included in information provided to buyers of polymer products (e.g. MSDS) due to the low levels present. They also vary from manufacturer to manufacturer and batch to batch. Concentration may also be affected by use of the product. As a result, generators would have to conduct detailed laboratory analyses, or obtain manufacturers' proprietary information, to satisfy Ecology's requirement that "polymers containing these additives must be evaluated for persistence", as articulated here and in Section 3.8.8 introductory text. [Emphasis added.]

As an example, regulated generators of waste polyvinyl chloride (PVC) pipe would have to determine, from each manufacturer and potentially each batch of pipe procured, which additives (as discussed in this section) the pipe contains. Alternatively, the generator might try to utilize one of the analytical methods in Table 3.8.6 to detect the additives present. For PVC pipe, the only likely method to be applicable is Method 8270C<sup>34</sup>, which Ecology admits is expensive and has limitations<sup>35</sup>. Although neither of these options (obtaining detailed composition information or lab analysis) is practical, Ecology's guidance in this section makes it clear that the generator is no longer allowed to presume that polymers are nonregulated – unless the generator manufactured the polymer and/or has knowledge of the additives.

The test methods provided for determining HOC provided in Section 3.8.4 cannot distinguish between the halogens contained in the additives and those in the polymer. Hence testing in the absence of process knowledge will not determine if the waste is regulated. A generator would have to test the waste by one or more of the methods in Table 3.8.6; it is not certain that additives would be identified by these methods either, as the additive would have to be identified outright (e.g. some phthalate plasticizers) or as a tentatively identified compound under Method 8270C. A conservative assumption might have to be made, resulting in many polymer wastes not intended to be regulated by this guidance unnecessarily managed as regulated waste. The Decision Tree in Section 3.8.5 appears to make this type of conservative assumption more likely.

As another point, *Chemical Testing Methods for Designating Dangerous Waste's* insistence here that additives "must" be evaluated seems to conflict with WAC 173-303-100(6)(a), where the generator only must evaluate the known constituents or known concentrations of their waste. The regulations do not appear to require that additives be identified in each case.

Finally, Ecology has not explained how it differentiates between HOCs which are chemically bound in the product (where degradation of the polymer would be required to release the HOC to the environment) and those which are physically bound (releasable if the polymer was crushed) in terms of the potential for persistence in the environment. Until a better approach to regulating additives in polymers can be designed, Ecology should delete all added discussions about polymer additives from this document.

**Tell us how your recommendation will improve the proposed rule amendments:**

Precludes regulation of low-hazard compounds in designation of state-only dangerous waste.

**Signature:** Tony McKarns

**Date:** March 4, 2009

<sup>34</sup> This method has been updated to 8270D in the February 2007 update to SW-846

<sup>35</sup> CTM Section 3.9.3

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

**Filed on January 15, 2009**

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**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** CTM Chapter 3      **Page No.** 31      **Citation No.** Endnote 1

**Please state your comment, question, or recommendation:**

Replace Chapter 3, Endnote 1, with the following:

“Washington State's accreditation program for laboratories is described in Chapter 173-050 WAC. Although using an accredited laboratory is not required to comply with WAC 173-303, Ecology recommends using accredited laboratories. Washington State's laboratory accreditation program will, for a fee, provide certification for any method. The certification is typically specific for a matrix like water, soil, etc. Before using an accredited laboratory, the generator should verify the lab is accredited for both the analytical method and his sample matrix. A list of accredited labs is available on the Internet at <http://www.wa.gov/ecology> or can be obtained from any of Ecology's regional offices. For more information about Ecology's laboratory accreditation program, refer to publication #91-34, *Procedural Manual for the Environmental Laboratory Accreditation Program*, January 1994.”

**Explain your concern:**

Ecology is proposing Chapter 3, Endnote 1 that describes laboratory accreditation. The way the endnote is written, an uninformed reader could conclude that laboratory accreditation is required by WAC 173-303. Because laboratory accreditation is not required by the dangerous waste regulations, Ecology should modify the endnote as proposed in order to preclude this perception.

**Tell us how your recommendation will improve the proposed revisions:**

This change will improve the understanding that using an accredited laboratory is not required for compliance with WAC 173-303.

**Signature:** Tony McKarns

**Date:** March 4, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

**Filed on January 15, 2009**

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**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** CTM Appendix 1      **Page No.** 33      **Citation No.** Glossary

**Please state your comment, question, or recommendation:**

Definition of Persistence: Replace definition with text from WAC 133-303-040. (change "2 moths (60 days)" to "one year (365 days)")

**Explain your concern:**

This text within the *Chemical Testing Methods for Designating Dangerous Waste* does not match the text in WAC 173-303. Ecology did not provide an explanation for this, and the definition in WAC 173-303-040 contains different text on half-life. For each place in *Chemical Testing Methods for Designating Dangerous Waste* where WAC 173-303 language is used, WAC 173-303 language should be repeated verbatim.

**Tell us how your recommendation will improve the proposed revisions:**

Having the *Chemical Testing Methods for Designating Dangerous Waste* text match text in the WAC 173-303 will improve compliance and help ensure the regulations are being properly implemented.

**Signature:** Tony McKarns

**Date:** March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

## Dangerous Waste Regulations, Chapter 173-303 WAC

Filed on January 15, 2009

First and Last Name: Tony McKarns

Organization or Affiliation: Department of Energy, Richland Operations Office

Address: PO Box 500, MSIN A5-15

City ST Zip: Richland, WA 99352

Indicate if your comment is on the federal or state requirements:  Federal  State

Section No.	Page No.	Citation No.	Definition of "Closure"
<u>WAC 173-303-040</u>	<u>8</u>	<u></u>	<u>Definition of "Closure"</u>

**Please state your comment, question, or recommendation:**  
Revise this definition to read: "Closure" means the requirements applied by this chapter to certain generators and transporters, and to recycling, used oil, and TSD facilities, to ensure that they are secured in an acceptable manner (refer to "post-closure").

**Explain your concern:**  
The proposed definition is very broad and results in the application of clean closure requirements to any dangerous waste management unit or recycling unit. The use of the word "and" between the two bullets proposed makes both mandatory in all cases. This conflicts with provisions in WAC 173-303 allowing some types of units to close without "cleaning up or decontaminating the unit and any areas affected by releases from the unit" under certain circumstances. See, for instance, WAC 173-303-640(8)(b), -660(9)(b), and -665(6). Ecology's proposed wording is also inconsistent with the applicability of closure and post-closure requirements given in WAC 173-303-610(1).

We note that Ecology intended this change to "reflect closure guidance"<sup>36</sup>, presumably Ecology Publication 94-111, revised May 2005. This publication is entitled "Guidance for Clean Closure of Dangerous Waste Units and Facilities". Hence broadening this definition is not appropriate for the types of units allowed to undergo landfill closure.

Further, "closure" is not "the process of taking a dangerous waste management unit or a recycling unit out of service ..." as proposed (and as stated in Publication 94-111, Section 1.0.) A unit must cease accepting waste (essentially, be removed from service) in order to begin closure; see WAC 173-303-610(3) and (4). The only "service" that remains during closure is to manage inventory properly until removed and perform the duties prescribed in the regulations. Publication 94-111, Section 1.0 states, "When closure is being carried out, a unit is referred to as 'closing' or 'in closure'." Such units do not seem to be accurately considered "in service".

Ecology still retains the ability to require appropriate closure requirements through application of WAC 173-303-610, permit requirements of WAC 173-303-806 and/or corrective action requirements of WAC 173-303-646.

**Tell us how your recommendation will improve the proposed rule amendments:**  
Our recommended language will clarify the definition of "closure" (compare definition at 40 CFR 270.2) to correctly reflect its usage in other parts of WAC 173-303. It will also aid in the proper scoping and preparation of closure plans for the units/facilities required to prepare them by WAC 173-303-610(3).

Signature: Tony McKarns

Date: March 4, 2009

<sup>36</sup> Preamble, p. 14.

# RULE-MAKING PROPOSAL COMMENT FORM

## Dangerous Waste Regulations, Chapter 173-303 WAC

Filed on January 15, 2009

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City ST Zip: Richland, WA 99352

Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. WAC 173-303-045 Page No. 30 Citation No. -045(4)(d)

***Please state your comment, question, or recommendation:***  
Delete this addition.

***Explain your concern:***

We do not agree with Ecology's reasoning that SW-846 methods must currently be used in every instance where analysis is required, or that such requirements should be "retained". See detailed comments on Section 110(3).

***Tell us how your recommendation will improve the proposed rule amendments:***

Preserves flexibility and cost effectiveness in analysis of solid and dangerous waste

***Signature:*** Tony McKarns

***Date:*** March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

## Dangerous Waste Regulations, Chapter 173-303 WAC

Filed on January 15, 2009

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Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. WAC 173-303-100 Page No. 66-67 Citation No. -100(2)

***Please state your comment, question, or recommendation:***

Delete language in WAC 173-303-100 incorporating the Hazardous Substances Data Bank (HSDB) and the Ecotoxicology Database (ECOTOX) by reference.

***Explain your concern:***

The Administrative Procedures Act at RCW 34.05.365 allows agencies to incorporate by reference "...all or any part of a code, standard, rule or regulation..." The HSDB and ECOTOX databases are online compilations of toxicology data published in periodicals. As a result, they appear unqualified for adoption by reference; they do not appear to qualify as codes, standards, rules, or regulations as those terms are used in RCW 34.05.

RCW 34.05.365 also requires the reference in agency rules to "fully identify the incorporated matter". Not only does the proposed rule not identify the incorporated matter, but the databases proposed for incorporation by reference do not identify it; they only refer the reader to individual periodicals containing the data.

Finally, RCW 34.05.365 authorizes incorporation by reference only when "the agency, organization, or association originally issuing that matter makes copies readily available to the public." The HSDB and ECOTOX toxicology result summaries are made readily available by the respective agency. However, the studies that are the source of the data are not always readily available, and not necessarily from the respective agency.

It is not clear why incorporation by reference is necessary in order to utilize database information for waste designation. Ecology mandates use of "data that are available to" the generator in preference to the referenced databases; none of that available data is incorporated by reference into the Dangerous Waste Regulations. We do acknowledge that Ecology has previously incorporated RTECS into the Dangerous Waste Regulations by reference and are not requesting that it be deleted at this time.

***Tell us how your recommendation will improve the proposed rule amendments:***

Brings proposed rule into compliance with the Administrative Procedures Act.

***Signature:*** Tony McKarns

***Date:*** March 4, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
**Dangerous Waste Regulations, Chapter 173-303 WAC**  
**Filed on January 15, 2009**

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**Indicate if your comment is on the federal or state requirements:**  **Federal**

**State**

**Section No.** WAC 173-303-100      **Page No.** 66, 67      **Citation No.** -(2)(b) and -(5)(b)(i)

***Please state your comment, question, or recommendation:***

The proposed requirement to use ECOTOX and HSDB as resources for determining constituent toxicity is inappropriate and should be deleted from WAC 173-303-100.

***Explain your concern:***

The proposed amendments would add ECOTOX and HSDB to the list of sources for determining toxic categories, apparently subject to the criterion that the most stringent toxic category from these sources would be used for designation purposes. Use of the ECOTOX and HSDB is inappropriate for many constituents. For example, the aquatic toxicity data in ECOTOX is often based on a generic identification of a metal, with no consideration of valence or solubility.

Consider the ECOTOX data for iron. The ECOTOX database shows an iron aquatic LC<sub>50</sub> of 0.56 ppm (96 hour test) due to toxicity to carp. (The database does not present any results for salmonids or fathead minnows, the preferred species under WAC 173-303-100(5)). Using this LC<sub>50</sub>, iron generically would be a toxic category B constituent, and designation as a WT02 dangerous waste would occur for any waste stream containing greater than 1,000 ppm of iron, including common items such as carbon steel. It is inappropriate for Ecology to base waste designation upon a database that would regulate common steel items as a dangerous waste. In addition, the statewide background concentration of iron in soil is 42,100 ppm (see Ecology's Natural Background Soil Metals Concentration in Washington State, Publication #94-115) – 42 times above the level resulting in designation based on generic application of the ECOTOX aquatic toxicity data. Obviously, with the high statewide background data and given the widespread presence of carp in various state waterways, other factors such as valence and solubility need to be considered in waste designation. The ECOTOX database makes no such distinction.

Generic use of the HSDB results in similar problems. For example, the HSDB shows an aquatic LC<sub>50</sub> of 0.015 mg/L for aluminum, making this a category A toxic material. Use of this data would not only result in EHW designation of aluminum pop cans, but would also result in soil at statewide background levels (37,200 mg/L aluminum) being designated as dangerous waste.

In some cases, the toxicity data in ECOTOX and HSDB could potentially be further evaluated by obtaining the source documents from which the database information is derived; however, these documents are not readily available to the general public, nor is the expertise necessary to evaluate and apply the associated technical information. As a consequence, generators using ECOTOX and the HSDB as mandatory references will be faced with designating various commonly encountered waste streams as dangerous wastes. This point seems to have been neglected in Ecology's *Preliminary Cost Benefit and Least Burdensome Analysis*, which concludes that availability of ECOTOX and HSDB represents a cost savings to generators as opposed to purchase of RTECS. Generators will not realize net cost savings if use of ECOTOX and HSDB results in them having to manage more of their waste as regulated dangerous waste, regardless of the savings associated with not having to purchase RTECS.

The proposed language regarding use of ECOTOX and HSDB as potential resources for toxicity information should be eliminated from WAC 173-303-100.

***Tell us how your recommendation will improve the proposed rule amendments:***

Eliminating the proposed requirement to use ECOTOX and HSDB toxicity data will avoid the unnecessary regulation of common, relatively non-hazardous materials as dangerous waste.

**Signature:** Tony McKarns

**Date:** March 4, 2009



# RULE-MAKING PROPOSAL COMMENT FORM

## Dangerous Waste Regulations, Chapter 173-303 WAC

Filed on January 15, 2009

First and Last Name: Tony McKarns

Organization or Affiliation: Department of Energy, Richland Operations Office

Address: PO Box 500, MSIN A5-15

City ST Zip: Richland, WA 99352

Indicate if your comment is on the federal or state requirements:

Federal  
 State

Section No. WAC 173-303-100

Page No. 67-68

Citation No. -100(3) and (5)

### ***Please state your comment, question, or recommendation:***

Delete references to the Hazardous Substances Data Bank (HSDB) and the Ecotoxicology Database (ECOTOX).

### ***Explain your concern:***

Ecology's approach to require consultation of the ECOTOX and HSDB databases for waste designation results in the significant expansion of the reach of the Dangerous Waste Regulations to solid wastes that should not be regulated as dangerous. While the lack of aquatic toxicity data in RTECS is unfortunate, adopting ECOTOX and HSDB by reference and simply referencing the data in those compilations constitutes misuse of their data as defined by the databases themselves.

EPA's ECOTOX limitations statement includes the following: "You should consult the original scientific paper to ensure an understanding of the context of the data retrieved from the ECOTOX database."<sup>37</sup> HSDB assigns "review status tags" to indicate the level of quality review: data that has been peer reviewed; data that has been quality reviewed but not peer reviewed; and data that has not been reviewed. We believe that only data, which has been peer reviewed should be adopted for use for waste designation. RTECS, which has been required for use since 1995, suffers from the same limitations regarding data quality as has been previously cited for ECOTOX and HSDB. In fact, the Centers for Disease Control (sponsoring agency for RTECS) notes "No attempt has been made to evaluate the studies cited in RTECS. The user has the responsibility of making such assessments."<sup>38</sup> We are not requesting removal of RTECS as a reference at this time, but we note that the use of these databases in this manner ignores the warnings provided by the databases themselves as to the quality of the information presented.

Despite these cautions, Ecology proposes to utilize these compilations as authoritative for all forms of the materials tested. Ecology proposes to adopt the databases for designation, not the underlying research information, which is essential in proper application of the test data. As a result, Ecology's proposed approach results in regulation of wastes which RCW 70.105 was never intended to reach, and are not currently regulated.

For example, ECOTOX reports the LC<sub>50</sub> of copper metal (CASRN 7440-50-8) as 39 µg/L for Coho salmon<sup>39</sup> and 20 µg/L for Chinook salmon<sup>40</sup>. As a result, metallic copper would be a Toxic A constituent and any waste that contains copper metal at a concentration over 0.01% (100 ppm) would designate as a dangerous waste. Any waste that contained over 1% copper metal would be extremely hazardous. Due to the prevalent use of copper in consumer goods, electrical wiring, construction materials, electronic devices, and even pennies, many such items will be dangerous or extremely hazardous waste when discarded under Ecology's proposed approach.

The regulated community has been able to rely, in the past, on the information on the form of the material tested in the original research. In the instant case, reference to the original research shows that only powdered copper was tested<sup>41</sup>. Generators have not had to consider other forms of copper as potentially regulated, as they have been able to rely on the underlying research results. Ecology's proposed approach references only the database information, not the underlying research, and thus expands the reach of the regulations significantly. It could

<sup>37</sup> U.S. EPA, ECOTOX database, "ECOTOX Limitations" website. Viewed 2/6/09.

<sup>38</sup> CDC, NIOSH, "RTECS: What Is RTECS?" webpage, viewed 2/6/09.

<sup>39</sup> Mudge et al., "Effect of Varying Environmental Conditions on the Toxicity of Copper to Salmon", ECOTOX reference 45201.

<sup>40</sup> Chapman, G.A., and J.K. McCrady, "Copper Toxicity: A Question of Form", ECOTOX reference 2062.

<sup>41</sup> *Ibid.*

force generators to conduct needless aquatic toxicity testing in order to overturn the impact of referencing these databases, as only bioassay data can overturn a book designation per WAC 173-303-100(5)(d).

As a second example, HSDB provides a LC<sub>50</sub> for aluminum metal of 120 µg/L in rainbow trout<sup>42</sup> (CASRN 7429-90-5) and ECOTOX gives an LC<sub>50</sub> of 15 µg/L for brown trout<sup>43</sup>. As with copper metal, aluminum metal would be considered a Toxic A constituent and cause many currently unregulated wastes to become dangerous or extremely hazardous. The 15µg/L result was reported on a 42-day exposure to brown trout at the alevin stage<sup>44</sup>, data that is not comparable to the methods specified by Ecology to perform an aquatic toxicity study (96-hour exposure 30-90 days after swim-up, i.e. post-alevin stage).

We understand why Ecology would not wish to require generators to consult the original research referenced in ECOTOX and HSDB. It is not always possible to acquire a copy of the original research, as ECOTOX does not provide copies of copyrighted material and the original publishing journal or other source would have to be contacted. Some data in ECOTOX dates from 1972, and some is from non-English publications. It is impractical to consult individual studies for waste designation in any event. Most waste designators in the state of Washington would likely not be able to review these studies in order to analyze the information, resulting in improper designation of waste.

We are also concerned that the regulation of these metals, and perhaps others, as toxic constituents may result in the need to designate bulky, heterogenous wastes such as construction debris that have traditionally not been considered to require it. In the extreme, individual items discarded in such containers (such as an aluminum beverage can, which HSDB and ECOTOX would designate as WT01, extremely hazardous waste, at the point of generation) might cause an entire dumpster load to be regulated due to the mixture rule, WAC 173-303-150(1). It would then become incumbent on regulated generators of such material to inspect these bulk wastes to make sure they do not contain materials that would cause them to be regulated. Since we have several construction projects ongoing, the impact on those programs would be substantial. The change would also expand the universe of regulated waste generators; for instance, construction companies and the companies contracting them become co-generators of regulated waste through the presence of enough copper and/or aluminum in their construction waste. If the waste contains enough of these metals, or is regulated by the mixture rule, the waste would be extremely hazardous and prohibited from disposal in Washington State per WAC 173-303-140(4)(a).

Ecology, in the past, has indicated that they would help identify usable toxicity information through guidance, rather than through regulation, in order to avoid exclusion of data sources<sup>45</sup>. The proposed rule amendment reverses this policy without explanation.

In summary, the proposed amendments introduce more data of widely variable quality and verifiability with the force of state regulation to book-designate waste. Ecology cites strong, national peer review as its rationale for retention of SW-846 analytical methods in its preamble to this proposed rule amendment. Comparable data or method quality standards are not necessarily followed for the addition of ECOTOX and HSDB; rather, these are recommended because they are free and easily accessed via the Internet. The amendments introduce a considerable amount of added effort to the book designation process and will significantly expand the universe of regulated toxic DW. We strongly encourage Ecology to avoid this outcome by identifying only well-established, peer-reviewed data sources through guidance as the basis for book designation in the absence of waste-specific information available to the generator.

***Tell us how your recommendation will improve the proposed rule amendments:***

Limits use of inaccurate or inapplicable information in designation of state-only dangerous waste; precludes management of wastes not intended to be regulated pursuant to RCW 70.105 as dangerous or extremely hazardous.

***Signature: Tony McKarns***

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***Date: March 4, 2009***

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<sup>42</sup> Holtze, K.E., "Effects of pH and Ionic Strength on Aluminum Toxicity to Early Developmental Stages of Rainbow Trout (*Salmo gairdneri* Richardson), Ontario Ministry of the Environment, Rexdale, Ontario, Canada: 39 (1983). ECOTOX reference 14405.

<sup>43</sup> Weatherly et al., "The Survival of Early Life Stages of Brown Trout (*Salmo trutta* L.) in Relation to Aluminum Speciation in Upland Welsh Streams", in *Aquatic Toxicology* 17(3):213-230, 1990. ECOTOX reference 3472.

<sup>44</sup> *Ibid.*

<sup>45</sup> Ecology, Responsiveness Summary for 1995 DW Regulations Amendments, Publication 95-423, p. 44, response to Comment 132.

**RULE-MAKING PROPOSAL COMMENT FORM**  
**Dangerous Waste Regulations, Chapter 173-303 WAC**  
**Filed on January 15, 2009**

**First and Last Name:** Tony McKarns

**Organization or Affiliation:** Department of Energy, Richland Operations Office

**Address:** PO Box 500, MSIN A5-15

**City ST Zip:** Richland, WA 99352

**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** WAC 173-303-100 **Page No.** 67-68 **Citation No.** -100(2), (3) and (5)

***Please state your comment, question, or recommendation:***

Ecology's analysis of costs and benefits from this rulemaking overlooks significant new costs to the regulated community while overstating savings. Ecology's Small Business Economic Impact Statement contains the same oversight. A further analysis should be undertaken to determine whether the proposed rule properly evaluates cost/benefit and whether it may disproportionately impact small business by causing them to become large quantity hazardous waste generators.

***Explain your concern:***

Ecology's analysis of costs and benefits (Publication 09-04-006), page 6, values the adoption of this rule as a cost savings to Washington dangerous waste generators of \$140,000 per year. Ecology's Small Business Economic Impact Statement (Publication 09-04-005), pages 3 and 15, portrays the adoption of this rule as a cost savings to Washington dangerous waste generators. This value is overstated, as it presumes that generators would not need to subscribe to one of the RTECS information services if ECOTOX and HSDB were used instead. However, Ecology's proposed rule incorporates RTECS by reference along with ECOTOX and HSDB (subsection 2), and requires RTECS' use along with the other two databases to determine which has the highest toxicity for the same test endpoint (subsections 3 and 5). Any generator that did not consult RTECS, trusting ECOTOX and/or HSDB to report the applicable data in RTECS, would be undertaking a compliance risk. Most generators are unlikely to undertake this risk for the potential savings of roughly \$500 per year, as fines and penalties for misdesignation of waste are usually many times this amount.

In addition to overstating savings, the analysis of costs and benefits completely ignores the significant economic cost of regulating hundreds of new dangerous wastes resulting from widespread use of ECOTOX and HSDB as a regulatory requirement. For instance, ECOTOX gives the aquatic toxicity of copper metal (CASRN 7440-50-8) as 39 µg/L for Coho salmon<sup>46</sup> and 20 µg/L for Chinook salmon<sup>47</sup>. As a result, metallic copper would be a Toxic A constituent, and any waste that contains copper metal at a concentration over 0.01% (100 ppm) would designate as a dangerous waste.

A second example is aluminum metal. HSDB provides a LC<sub>50</sub> for elemental aluminum of 120 µg/L in rainbow trout<sup>48</sup> (CASRN 7429-90-5) and ECOTOX gives an LC<sub>50</sub> of 15 µg/L for brown trout<sup>49</sup>. As with copper metal, aluminum metal would be considered a Toxic A constituent and cause many currently unregulated wastes to become dangerous. In short, Ecology is significantly broadening the scope of the Dangerous Waste Regulations without determining the economic impact of the change.

***Tell us how your recommendation will improve the proposed rule amendments:***

Allow Ecology to make a proper determination of cost/benefit of the proposed regulation as required by 34.05 RCW; allow Ecology to make a proper determination of small business impact of the proposed regulation as required by 19.85 RCW.

**Signature:** Tony McKarns

**Date:** March 4, 2009

<sup>46</sup> Mudge et al., "Effect of Varying Environmental Conditions on the Toxicity of Copper to Salmon", ECOTOX reference 45201.

<sup>47</sup> Chapman, G.A., and J.K. McCrady, "Copper Toxicity: A Question of Form", ECOTOX reference 2062.

<sup>48</sup> Holtze, K.E., "Effects of pH and Ionic Strength on Aluminum Toxicity to Early Developmental Stages of Rainbow Trout (*Salmo gairdneri* Richardson), Ontario Ministry of the Environment, Rexdale, Ontario, Canada: 39 (1983). ECOTOX reference 14405.

<sup>49</sup> Weatherly et al., "The Survival of Early Life Stages of Brown Trout (*Salmo trutta* L.) in Relation to Aluminum Speciation in Upland Welsh Streams", in *Aquatic Toxicology* 17(3):213-230, 1990. ECOTOX reference 3472.

# RULE-MAKING PROPOSAL COMMENT FORM

## Dangerous Waste Regulations, Chapter 173-303 WAC

Filed on January 15, 2009

First and Last Name: Tony McKarns

Organization or Affiliation: Department of Energy, Richland Operations Office

Address: PO Box 500, MSIN A5-15

City ST Zip: Richland, WA 99352

Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. WAC 173-303-100 Page No. 71 Citation No. -104(5)

***Please state your comment, question, or recommendation:***

Please provide an alternative method for generator annual reporting for labpacks.

***Explain your concern:***

With the deletion of the WL01 and WL02 waste codes, we have experienced a significant increase in cost associated with preparing annual reports. While we understand the reasons for deleting the WL01 and WL02 waste codes from the regulations, we request that Ecology modify TurboWaste to allow reporting of combination packagings as a single waste unit rather than a unique container exhibiting every waste code represented in the package. Under current regulation and TurboWaste requirements, nearly every container within a labpack must be identified as a separate waste stream and have its own GM form since each labpack generally contains a different assortment of wastes and waste codes. There is little value to Ecology, the regulated community, or the public in the bulkier annual report submittals that have resulted from the deletion of these waste codes.

***Tell us how your recommendation will improve the proposed rule amendments:***

Streamlines annual reporting for labpacks without requiring the labpack waste codes to be restored to the regulations.

***Signature:*** Tony McKarns

***Date:*** March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

## Dangerous Waste Regulations, Chapter 173-303 WAC

Filed on January 15, 2009

First and Last Name: Tony McKarns

Organization or Affiliation: Department of Energy, Richland Operations Office

Address: PO Box 500, MSIN A5-15

City ST Zip: Richland, WA 99352

Indicate if your comment is on the federal or state requirements:

Federal  
 State

Section No. WAC 173-303- Page No. 73 Citation No. -110(3)(a)  
100

### ***Please state your comment, question, or recommendation:***

Replace the text of this section with the identity of the specific test procedures being incorporated. The specific test procedures from SW-846 that are incorporated should be the same list as that found in 40 CFR 260.11(c)(3).

### ***Explain your concern:***

This comment rises from two concerns.

Our first concern is that the Administrative Procedures Act at RCW 34.05.365 allows agencies to incorporate by reference "...all or any part of a code, standard, rule or regulation..." The SW-846 manual is a compilation of testing methods. As a result, it appears unqualified for adoption by reference; the manual as a whole does not appear to qualify as codes, standards, rules, or regulations as those terms are used in RCW 34.05.

RCW 34.05.365 also requires the reference in agency rules to "fully identify the incorporated matter". It is not clear whether Ecology intends to incorporate the entire manual, just the test procedures (as intimated by the preamble and other changes to the regulations), or some other subset of SW-846.

We are also concerned that by incorporating the entire SW-846 manual, Ecology is using this section to make mandatory not only those testing methods that were made nonmandatory by the federal Methods Innovation Rule<sup>50</sup>, but methods that were never previously mandatory. Table 2 in the preamble to the Methods Innovation Rule<sup>51</sup> enumerates which portions of the Federal rules were being amended to delete the mandatory use of SW-846. These deletions are relatively minor in scope and would impact very few facilities in Washington State, with the possible exception of the method for measuring air emissions from tanks and containers.

However, inclusion of all of SW-846 "by reference" appears to make mandatory methods that were never previously required for waste analysis. For example, EPA notes in the preamble of the Methods Innovation Rule<sup>52</sup> that the Toxicity Characteristic Leaching Procedure (SW-846 Method 1311), while required to prepare an extract for analysis, does not specify the method for analysis of the resulting extract. Instead, it allows use of "appropriate analytical methods" and has since 1992<sup>53</sup>. It is not clear why Ecology believes SW-846 testing methods are now the only way such extracts can be properly analyzed. In fact, EPA states the opposite in its preamble: "EPA also believes that method selection should be a project-specific decision and therefore cannot recommend or approve any methods – even SW-846 methods – as always being appropriate for any given application ... Relying on the fact that a method is contained in SW-846 does not guarantee that the method will always generate effective data under any situation. If the SW-846 method is not an appropriate method for its intended application, following it exactly could generate erroneous data and could fail to demonstrate compliance with the RCRA requirements."<sup>54</sup> Further, "The Agency [i.e. EPA] strongly disagrees with commenters that SW-846 methods should be identified as always appropriate."<sup>55</sup>

<sup>50</sup> 70 FR 34537, 6/14/05.

<sup>51</sup> *ibid.* at 34546.

<sup>52</sup> *Ibid.* at 34543.

<sup>53</sup> *Ibid.* See also SW-846, Method 1311, Sections 7.2.14 and 7.3.15.

<sup>54</sup> *Ibid.*

<sup>55</sup> *Ibid.* at 34545.

Therefore, while Ecology states that “Washington and other states have depended upon SW-846 to provide validated methods that can be used to meet the requirements of the regulations”<sup>56</sup>, the document’s author (EPA) disagrees that it fulfills that role and says it should not be used in that manner. Ecology states that it “cannot divert already over-extended resources to review methods outside of SW-846”<sup>57</sup>, yet it retains the option to petition for use of other methods and admits, “the generator remains legally liable for designation of its waste”<sup>58</sup>.

Ecology has not provided any data to demonstrate that use of SW-846 is universally appropriate or compliant. Ecology has also not demonstrated that EPA improperly made any SW-846 methods nonmandatory in any of the situations where Ecology proposes to make them mandatory. Ecology should not pursue blanket imposition of SW-846 without substantial justification.

***Tell us how your recommendation will improve the proposed rule amendments:***

Brings proposed rule into compliance with the Administrative Procedures Act; incorporates only the methods required for compliance into the Dangerous Waste Regulations.

***Signature:*** Tony McKarns

***Date:*** March 4, 2009

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<sup>56</sup> Ecology, “Proposed Amendments” [preamble], p. 7.

<sup>57</sup> Ibid.

<sup>58</sup> Ibid.

# RULE-MAKING PROPOSAL COMMENT FORM

## Dangerous Waste Regulations, Chapter 173-303 WAC

Filed on January 15, 2009

First and Last Name: Tony McKarns

Organization or Affiliation: Department of Energy, Richland Operations Office

Address: PO Box 500, MSIN A5-15

City ST Zip: Richland, WA 99352

Indicate if your comment is on the federal or state requirements:

Federal  
 State

Section No. WAC 173-303-110

Page No. 74

Citation No. -110(3)(f)

***Please state your comment, question, or recommendation:***

Delete this subsection.

***Explain your concern:***

As this subsection has been reworded, it now makes mandatory selecting one of the methods given in Chapter 2 of SW-846 for any waste. This is inconsistent with the remainder of Section 110, where other methods are specified for certain types of wastes or certain constituents. Further, as presently written, subsection (f) is redundant to subsection (a) of this section, as SW-846 is already incorporated by reference in its entirety via the changes to subsection (a). The original purpose of subsection (f) was to assure consistency with Federal rules by referencing 40 CFR 261 Appendix II and Appendix III. As EPA has removed and reserved both appendices, the references are no longer necessary and Ecology has determined not to be consistent with Federal rules in any event.

Note: refer to our comment on subsection (3)(a) for recommended wording of that subsection.

***Tell us how your recommendation will improve the proposed rule amendments:***

Simplifies the references provided in this section.

***Signature:*** Tony McKarns

***Date:*** March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

## Dangerous Waste Regulations, Chapter 173-303 WAC

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Organization or Affiliation: Department of Energy, Richland Operations Office

Address: PO Box 500, MSIN A5-15

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Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. WAC 173-303-110 Page No. 75 Citation No. -110(5)

***Please state your comment, question, or recommendation:***

Revise this subsection to read: (5) Equivalent testing or analytical methods. Any person may petition for a regulatory amendment to add a testing or analytical method to this section by preparing and submitting a petition to the department in accordance with WAC 173-303-910(2).

***Explain your concern:***

The words "testing or analytical method" are added since Ecology's stated intent is to apply this process to testing methods, not to other subjects in this section (e.g. sampling methods). This change also restores consistency with -910(2).

Restore use of word "may" instead of "must". There is no reason to insist on use of the petition process in all cases. For instance, Ecology permit writers should have the flexibility to allow alternative methods to be used in the context of individual permitted facilities where appropriate. Ecology states that this is their intent<sup>59</sup>, but the wording of this section appears to preclude it. Further, discussion with some Ecology permit writers has indicated that they would not be able to authorize use of alternate methods in permits if this language is adopted. There are many reasons that alternative test methods should be considered for use, and we object to the requirement to use only the methods listed in section -110 in our comment on subsection -110(1). Further, the subsection -910(2) process results in an amendment to WAC 173-303. This process is expensive and time-consuming. Other processes should be considered in cases where an amendment to the WAC is unnecessary, e.g. one-time approvals.

***Tell us how your recommendation will improve the proposed rule amendments:***

Provides clarification and flexibility in the application of this subsection.

***Signature:*** Tony McKarns

***Date:*** March 4, 2009

<sup>59</sup> Preamble, p. 15.



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**Address:** PO Box 500, MSIN A5-15

**City ST Zip:** Richland, WA 99352

**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** WAC 173-303-110    **Page No.** 75    **Citation No.** -110(6)

***Please state your comment, question, or recommendation:***

Delete this subsection.

***Explain your concern:***

Reporting of analytical results on a dry weight basis is inappropriate for a number of reasons. First, it appears that if the test method is performed for waste designation purposes, a dry weight measurement will produce an analytical result that is not representative of the waste at the point of the generation when the waste contains water or moisture.

As a specific example of a parameter where a dry measurement is inappropriate, the amount of water in a sample is immaterial to the measurement of pH in soil (SW-846 Method 9045D), as water is added to the sample during analysis. Further, Method 9045D specifies that the sample must be less than 20% water. Ecology has not indicated the regulatory basis for adding a requirement for reporting all results on a dry weight basis, especially since solids and soils can vary in moisture content as a normal part of generation. No explanation of why compensation for variability in water content is necessary is offered. WAC 173-303 already proscribes improper dilution of waste to avoid regulation.

Ecology has not established the value of a "consistent procedure for all analytical results" since most analyses for designation purposes are never submitted to Ecology, and the generator retains the responsibility to designate properly their waste in any event<sup>60</sup>. If Ecology wishes to evaluate consistently analytical results for which certification of designation has been requested under the provisions of WAC 173-303-075, Ecology can add this requirement to that section without requiring the vast majority of designations not submitted to Ecology include this requirement. Soils and solid materials typically vary in water content as generated. This requirement would add the analysis of water content (Ecology estimate of less than \$25 per sample) to the analytical cost for any soil or solids sample.

Also note that Ecology already has the authority to require any generator to analyze its waste (including for moisture content) at WAC 173-303-070(4) for cause.

We also note with interest that Ecology's "Background and Rationale for the Update of Biological Testing Methods ..." issued at the same time as this proposed rule describes Ecology's reasoning for deleting the requirement to determine the moisture content of a sample being tested for toxicity pursuant to the Biological Testing Methods. It would appear that the same rationale described for deleting the moisture content determination requirement from the Biological Testing Methods would argue against the addition of this requirement in WAC 173-303-110(6).

Although Ecology has stated that it has always been their intent that results be reported this way, this requirement has not appeared in Ecology's Chemical Test Methods guidance in the past. It is also not mentioned anywhere in the revised Chemical Test Methods document provided with this proposed rule, even though the Preamble states that it does<sup>61</sup>.

***Tell us how your recommendation will improve the proposed rule amendments:***

Avoid imposition of unnecessary requirements to waste generators statewide.

***Signature:*** Tony McKarns

***Date:*** March 4, 2009

<sup>60</sup> WAC 173-303-070(1)(b); see also Preamble, p. 7.

<sup>61</sup> Preamble, p. 15.

# RULE-MAKING PROPOSAL COMMENT FORM

## Dangerous Waste Regulations, Chapter 173-303 WAC

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Address: PO Box 500, MSIN A5-15

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Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. WAC 173-303-- Page No. 75 Citation No. -110(7)  
110

***Please state your comment, question, or recommendation:***

Because Ecology is no longer using 40 CFR 264 Appendix IX as a reference in the regulations, Ecology should explain in the responsiveness summary how they are going to maintain the groundwater monitoring list in Appendix 5 of the Chemical Testing Methods for Designating Dangerous Waste consistent with EPA's list in 40 CFR 264 Appendix IX.

***Explain your concern:***

With Ecology no longer referencing 40 CFR 264 Appendix IX in the regulations, a concern exists that the two lists of constituents can become different over time. If and when EPA modifies the list of constituents in 40 CFR 264 Appendix IX, Ecology should also then update the chemical testing methods appendix to be consistent. Ecology should make a commitment in the responsiveness summary to keep the two lists of constituents the same.

***Tell us how your recommendation will improve the proposed rule amendments:***

With Ecology making a commitment to keep the lists of constituents the same, Ecology will minimize the problems that can be created during enforcement activities and when EPA looks at the state's authorized program.

***Signature:*** Tony McKarns

***Date:*** March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

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Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. WAC 173-303-140 Page No. 80 Citation No. -140(2)(a)

***Please state your comment, question, or recommendation:***

Delete the proposed added sentence at the end of this paragraph imposing WAC 173-303-110(3)(a) in lieu of 40 CFR 260.11.

***Explain your concern:***

We do not agree that imposition of the specified methods in WAC 173-303-110(3)(a) is appropriate in every case. Refer to our comments on WAC 173-303-110(3)(a).

***Tell us how your recommendation will improve the proposed rule amendments:***

Incorporates only the methods required for compliance into the Dangerous Waste Regulations

***Signature:*** Tony McKarns

***Date:*** March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

## Dangerous Waste Regulations, Chapter 173-303 WAC

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First and Last Name: Tony McKarns

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Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. WAC 173-303-200 Page No. 96 Citation No. -200(2)(a)

***Please state your comment, question, or recommendation:***

We commend Ecology for making this change to allow satellite accumulation to correlate more closely with Federal requirements for the same. We also suggest that, once incorporated, Ecology's guidance document on satellite accumulation be updated to reflect this change.

***Explain your concern:***

None.

***Tell us how your recommendation will improve the proposed rule amendments:***

Consistency with Federal guidance.

***Signature:*** Tony McKarns

***Date:*** March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

## Dangerous Waste Regulations, Chapter 173-303 WAC

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Address: PO Box 500, MSIN A5-15

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Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. WAC 173-303-300 Page No. 120 Citation No. -300(5)(f)

***Please state your comment, question, or recommendation:***

Delete proposed added sentence.

***Explain your concern:***

The added sentence requires use of the specified methods in WAC 173-303-110(3), as proposed, for all laboratory analyses used in connection with a waste analysis plan. We object to Ecology's approach for mandatory use of the methods specified in -110(3), unless those methods are the only one capable of measuring a particular property (e.g. toxicity characteristic leaching procedure). See our comments on -110(3)(a).

Further, the inclusion of this requirement in this section ties the hands of Ecology permit writers in developing appropriate test methods for permitted facilities. In its preamble, Ecology states, "other methods can be used in permits to support facility operations."<sup>62</sup> Inclusion of this sentence here overturns Ecology's stated intention, as permit writers will have no choice but to require -110(3) methods be used in waste analysis plans.

***Tell us how your recommendation will improve the proposed rule amendments:***

Preserve flexibility in permits; incorporates only the methods required for compliance into the Dangerous Waste Regulations.

***Signature:*** Tony McKarns

***Date:*** March 4, 2009

<sup>62</sup> Preamble, p. 15, reason for change to 110(1).

# RULE-MAKING PROPOSAL COMMENT FORM

## Dangerous Waste Regulations, Chapter 173-303 WAC

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Address: PO Box 500, MSIN A5-15

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Indicate if your comment is on the federal or state requirements:

Federal  
 State

Section No. WAC 173-303-300

Page No. 120

Citation No. -300(5)(f)

***Please state your comment, question, or recommendation:***

Delete proposed added sentence.

***Explain your concern:***

The proposed addition of compliance with requirements under WAC 173-303-110(3)(a) creates a large additional burden on the regulated community. Note that many generators, including Hanford, meet their waste designation obligations through the use of knowledge of the waste. This is authorized by regulation (see WAC 173-303-070(3)(c)(ii)). This would force receiving TSD facilities that receive out of state waste to apply additional testing requirements when an out of state generator did not use SW-846 methods. This cost would then be passed back to generators by the receiving facilities, penalizing those facilities that develop knowledge of their wastes in order to avoid expensive testing.

The means of referencing the sections in existing -300(5)(f) could also subject all activity under closure, postclosure (references to unit-specific closure/postclosure requirements), and corrective action to SW-846 (references to -645 and -646 are included in "-630 through -670"). This is not appropriate as individual wastes and matrices at facilities that are closing or already closed may require different analytical techniques.

Also note that the requirements in -300(5)(f) are elements of data gathering pursuant to a waste analysis plan at a interim- or final-status facility<sup>63</sup>. The purpose of such data is not to designate the waste, but confirm the owner or operator's knowledge about a waste in order to manage it properly (see -300(1)). The requirement to have all data meet SW-846 analysis requirements is excessive. In many cases, convenient and readily available test kits or similar devices are available to meet the requirements of -300(1) without requiring each and every TSD facility in the state to have a fully equipped and functioning laboratory (or one nearby under contract) in order to conduct basic confirmatory waste analysis. Where testing must use -110(3) methods per Federal regulation [e.g. analysis of treated waste residues under 40 CFR 268.7(b)(1) or (2)], the requirement should come from the referenced section, not -300(5)(f).

***Tell us how your recommendation will improve the proposed rule amendments:***

Preserve flexibility in analysis requirements between generators and TSD facilities.

***Signature:*** Tony McKarns

***Date:*** March 4, 2009

<sup>63</sup> This requirement would also include generators treating their waste in tanks or containers to meet LDR requirements.

# RULE-MAKING PROPOSAL COMMENT FORM

## Dangerous Waste Regulations, Chapter 173-303 WAC

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Address: PO Box 500, MSIN A5-15

City ST Zip: Richland, WA 99352

Indicate if your comment is on the federal or state requirements:  Federal  State

Section No. WAC 173-303-320 Page No. N/A Citation No. -320(2)(c)

***Please state your comment, question, or recommendation:***

Revise WAC 173-303-320(2)(c) to read as follows:

(c) The schedule must indicate the frequency of inspection for the items on the schedule. The frequency should be based on the rate of possible deterioration of equipment, and the probability of an environmental or human health incident if the deterioration, malfunction, or operator error goes undetected between inspections. Areas subject to spills, such as loading and unloading areas, must be inspected daily when in use, except for Performance Track member facilities, that must inspect at least once each month, upon approval by the Department as described in paragraph (4). At a minimum, the inspection schedule must...

Add a new paragraph (4) to WAC 173-303-320 to read as follows:

(4) Performance Track member facilities that choose to reduce their inspection frequency must:

(i) Submit a request for a Class 1 permit modification with prior approval to the department. The modification request must identify the facility as a member of the National Environmental Performance Track Program and identify the management units for reduced inspections and the proposed frequency of inspections. The modification request must also specify, in writing, that the reduced inspection frequency will apply for as long as the facility is a Performance Track member facility, and that within seven calendar days of ceasing to be a Performance Track member, the facility will revert to the non-Performance Track inspection frequency. Inspections must be conducted at least once each month.

(ii) Within 60 days, the Director will notify the Performance Track member facility, in writing, if the request is approved, denied, or if an extension to the 60-day deadline is needed. This notice must be placed in the facility's operating record. The Performance Track member facility should consider the application approved if the Director does not: deny the application; or notify the Performance Track member facility of an extension to the 60-day deadline. In these situations, the Performance Track member facility must adhere to the revised inspection schedule outlined in its request for a Class 1 permit modification and keep a copy of the application in the facility's operating record.

(iii) Any Performance Track member facility that discontinues their membership or is terminated from the program must immediately notify the Director of their change in status. The facility must place in its operating record a dated copy of this notification and revert to the non-Performance Track inspection frequencies within seven calendar days.

Revise WAC 173-303-630(6) to read:

(6) Inspections. At least weekly, the owner or operator must inspect areas where containers are stored, except for Performance Track member facilities that may conduct inspections at least once per month, upon approval by the department. To apply for reduced inspection frequencies, the Performance Track member facility must follow the procedures identified in WAC 173-303-320(4). The owner or operator must look for leaking containers and for deterioration of containers and the containment system caused by corrosion or other factors. The owner or

operator must keep an inspection log ...

Revise WAC 173-303-640(6)(b) to read:

(b) Except as noted under paragraph (f) of this section, the owner or operator must ...

Add a new paragraph (f) to WAC 173-303-640(6) to read:

(f) Performance Track member facilities may inspect on a less frequent basis, upon approval by the department, but must inspect at least once each month. To apply for a less than weekly inspection frequency, the Performance Track member facility must follow the procedures described in WAC 173-303-320(4).

***Explain your concern:***

We strongly recommend that Ecology add potentially decreased inspection requirements for members of EPA's National Environmental Performance Track program as adopted by Federal regulations. Ecology's rationale for not adopting this rule, as given in the preamble, is that reduced inspections could lessen the current level of human or environmental protection, reduce access to available information, or risk a conflict of interest<sup>64</sup>. However, as required under the equivalent EPA regulations and included in proposed section -320(4), Ecology has the authority to review and authorize (or deny) each request for reduced inspection frequency. Because of this review process, there is no potential for reduced protection inherent in the adoption of this rule. Performance Track members would be responsible for demonstrating adequate human and environmental protection as a part of any proposal for reduced inspection frequencies. For instance, Performance Track members will have environmental management system requirements for accumulation, and regulatory-compliant leak detection systems for tank systems.

Review of requests for reduced inspection requirements should not present significant resource burdens for Ecology. As of February 2009, there are nineteen Performance Track facilities in the state of Washington. Only one request for inspection frequency change is required per member facility, and it is possible that not all Performance Track members would seek this change for their facilities. Hence, the review of the few requests that would potentially be filed would not represent a significant change in Ecology program costs.

Ecology should strive to provide incentives for beyond-compliance environmental performance, such as those achieved by Performance Track members, as envisioned by its Performance Partnership Agreement with EPA<sup>65</sup> and Ecology's Beyond Waste plan<sup>66</sup>. Facilities must demonstrate superior environmental performance to become Performance Track members. The relatively modest incentives available to be provided to members should be readily adopted by Ecology in order to incentivize voluntary, superior environmental performance at Washington facilities.

***Tell us how your recommendation will improve the proposed rule amendments:***

Enhance consistency with Federal regulations and incentivize superior environmental performance by Washington facilities.

***Signature: Tony McKarns***

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***Date: March 4, 2009***

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<sup>64</sup> Preamble, p. 10, 2<sup>nd</sup> paragraph.

<sup>65</sup> See "Environmental Performance Partnership Agreement", Ecology Publication 07-01-028, p. 11, 40, and Appendix 3.

<sup>66</sup> See, e.g., "Potential Enhancements to Ecology's Pollution Prevention Planning Program", Ecology Publication 03-04-033, p. 30-33.



# RULE-MAKING PROPOSAL COMMENT FORM

## Dangerous Waste Regulations, Chapter 173-303 WAC

Filed on January 15, 2009

First and Last Name: Tony McKarns

Organization or Affiliation: Department of Energy, Richland Operations Office

Address: PO Box 500, MSIN A5-15

City ST Zip: Richland, WA 99352

Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. WAC 173-303-370 Page No. 124 Citation No. -370(2)(b)

***Please state your comment, question, or recommendation:***

Correct the reference as follows: ...“(as defined in subsection (5)(a) of this section)”...

***Explain your concern:***

Definition of manifest discrepancies has moved to subsection (5)(a).

***Tell us how your recommendation will improve the proposed rule amendments:***

Updates reference to manifest discrepancies as has been done in subsection (4)(b).

***Signature:*** Tony McKarns

***Date:*** March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

## Dangerous Waste Regulations, Chapter 173-303 WAC

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Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. WAC 173-303-370 Page No. 125 Citation No. -370(4)(b)

***Please state your comment, question, or recommendation:***

Revise this to read: "Note any discrepancies (as defined in subsection (5)(a) of this section) in the manifest or shipping paper (if the manifest has not been received) on each copy of the manifest or shipping paper."

***Explain your concern:***

Should note the specific subsection that describes discrepancies; most of the rest of section (5) deals with how to deal with the discrepancies once discovered and is not relevant here. This change also makes the wording consistent with -370(2)(b) (see our comment at -370(2)(b)) and with 40 CFR 264.71(a)(2)(ii) and (b)(2)(ii), with which this wording is intended to be consistent.

***Tell us how your recommendation will improve the proposed rule amendments:***

Consistent wording and correct references to reflect new manifest requirements.

***Signature:*** Tony McKarns

***Date:*** March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

## Dangerous Waste Regulations, Chapter 173-303 WAC

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Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. WAC 173-303-370 Page No. 128 Citation No. -370(6)(a)(ii)

***Please state your comment, question, or recommendation:***

Revise this to read: "...as defined in subsection (5)(a) of this section..."

***Explain your concern:***

Should note the specific subsection that describes discrepancies; most of the rest of section (5) deals with how to deal with the discrepancies once discovered and is not relevant here. This change also makes the wording consistent with -370(2)(b) and -370(4)(b) (see our comments at those subsections).

***Tell us how your recommendation will improve the proposed rule amendments:***

Consistent wording and correct references to reflect new manifest requirements.

***Signature:*** Tony McKarns

***Date:*** March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

## Dangerous Waste Regulations, Chapter 173-303 WAC

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Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. WAC 173-303-380 Page No. 129 Citation No. -380(1)(c)

***Please state your comment, question, or recommendation:***

Delete proposed added sentence.

***Explain your concern:***

The added sentence requires use of the specified methods in WAC 173-303-110(3)(a), as proposed, for all laboratory analyses used in connection with a waste analysis plan. We object to Ecology's approach for mandatory use of the methods specified in -110(3), unless those methods are the only one capable of measuring a particular property (e.g. toxicity characteristic leaching procedure). See our comments on -110(3)(a). In addition, this sentence only allows SW-846 test methods, and not the other test methods incorporated in -110(3)(b)-(h).

Further, the inclusion of this requirement in this section ties the hands of Ecology permit writers in developing appropriate test methods for permitted facilities. In its preamble, Ecology states, "other methods can be used in permits to support facility operations."<sup>67</sup> Inclusion of this sentence here overturns Ecology's stated intention, as permit writers will have no choice but to require -110(3) methods be used in all monitoring, testing, and analytical data.

***Tell us how your recommendation will improve the proposed rule amendments:***

Preserve flexibility in permits; incorporates only the methods required for compliance into the Dangerous Waste Regulations.

***Signature:*** Tony McKarns

***Date:*** March 4, 2009

<sup>67</sup> Preamble, p. 15, reason for change to 110(1)

# RULE-MAKING PROPOSAL COMMENT FORM

## Dangerous Waste Regulations, Chapter 173-303 WAC

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City ST Zip: Richland, WA 99352

Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. WAC 173-303-380 Page No. 129 Citation No. -380(1)(f)

***Please state your comment, question, or recommendation:***

Delete proposed added sentence at end of this subsection.

***Explain your concern:***

The added sentence requires use of the specified methods in WAC 173-303-110(3)(a), as proposed, for all laboratory analyses used in connection with a waste analysis plan. We object to Ecology's approach for mandatory use of the methods specified in -110(3), unless those methods are the only one capable of measuring a particular property (e.g. toxicity characteristic leaching procedure). See our comments on -110(3)(a). In addition, this sentence only allows SW-846 test methods, and not the other test methods incorporated in -110(3)(b)-(h).

Further, the inclusion of this requirement in this section ties the hands of Ecology permit writers in developing appropriate test methods for permitted facilities. In its preamble, Ecology states, "other methods can be used in permits to support facility operations."<sup>68</sup> Inclusion of this sentence here overturns Ecology's stated intention, as this requirement appears to mandate that permit writers require -110(3) methods be used in all monitoring, testing, and analytical data.

***Tell us how your recommendation will improve the proposed rule amendments:***

Preserve flexibility in permits; incorporates only the methods required for compliance into the Dangerous Waste Regulations.

***Signature:*** Tony McKarns

***Date:*** March 4, 2009

<sup>68</sup> Preamble, p. 15, reason for change to 110(1)

# RULE-MAKING PROPOSAL COMMENT FORM

## Dangerous Waste Regulations, Chapter 173-303 WAC

Filed on January 15, 2009

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Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. WAC 173-303-380 Page No. 131 Citation No. -380(2)(c), Table 1

***Please state your comment, question, or recommendation:***

Delete repeat references to pounds, short tons, and kilograms. Clarify whether "tons" refers to long tons (2200 lbs), metric tons (1000 Kg), or some other type of ton.

***Explain your concern:***

The repeated appearance of pounds, short tons, and kilograms at the bottom of Table 1 should be avoided. Either delete them at the bottom of the table or delete the previous instances in the table. As to the reference to "tons (M)", define what type of ton is intended. The Federal rule does not indicate whether this is a metric ton (as implied by the use of the code "M") or some other type of ton.

***Tell us how your recommendation will improve the proposed rule amendments:***

Simplifies and clarifies the use of Table 1.

***Signature:*** Tony McKarns

***Date:*** March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

## Dangerous Waste Regulations, Chapter 173-303 WAC

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Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. WAC 173-303-400 Page No. 140 Citation No. -400(3)(c)(iii)

***Please state your comment, question, or recommendation:***  
Delete proposed added sentence and revise section numbering accordingly.

***Explain your concern:***  
The added sentence requires use of the specified methods in WAC 173-303-110(3)(a), as proposed, for all laboratory analyses used in connection with a waste analysis plan. We object to Ecology's approach for mandatory use of the methods specified in -110(3), unless those methods are the only one capable of measuring a particular property (e.g. toxicity characteristic leaching procedure). See our comments on -110(3)(a). In addition, this sentence only allows SW-846 test methods, and not the other test methods incorporated in -110(3)(b)-(h).

***Tell us how your recommendation will improve the proposed rule amendments:***  
Incorporates only the methods required for compliance into the Dangerous Waste Regulations

***Signature:*** Tony McKarns

***Date:*** March 4, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
**Dangerous Waste Regulations, Chapter 173-303 WAC**  
**Filed on January 15, 2009**

**First and Last Name:** Tony McKarns

**Organization or Affiliation:** Department of Energy, Richland Operations Office

**Address:** PO Box 500, MSIN A5-15

**City ST Zip:** Richland, WA 99352

**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** WAC 173-303-400      **Page No.** 144      **Citation No.** -400(3)(c)(xiii)

***Please state your comment, question, or recommendation:***

Change the text of the citation to read: "An additional sentence reads: "An owner/operator must not landfill an organic/carbonaceous waste or an EHW, as defined by WAC 173-303-080 through 173-303-100, except at the EHW facility at Hanford under WAC 173-303-700, or as allowed under WAC 173-303-140(5), (6), or (7), or as allowed under RCW 70.105.050(2)."

***Explain your concern:***

The citation does not reflect current requirements for land disposal at a landfill. As proposed, it reads:

(xiii) "Subpart N - landfills."

(A) An additional sentence reads: "An owner/operator must not landfill an organic/carbonaceous waste or an EHW, as defined by WAC 173-303-080 through 173-303-100, except at the EHW facility at Hanford."

There is an inconsistency between the text in WAC 173-303-400(3)(c)(xiii) with the text in WAC 173-303-140(5), (6), and (7) and RCW 70.105.050(2). This sentence, fails to reflect the actual regulatory and statutory provisions that do, in fact, allow for land disposal of an organic/carbonaceous waste and EHW under certain circumstances. For example, WAC 173-303-140(4)(a) allows for land disposal of EHW in accordance with subsections (5), (6), and (7) of the regulation. RCW 70.105.050(2) allows for disposal of radioactive EHW provided certain conditions are met. The sentence should be revised to reflect the fact that EHW can, in fact, be land disposed under certain conditions.

RCW 70.105.050(2) states: "Extremely hazardous wastes that contain radioactive components may be disposed at a radioactive waste disposal site that is (a) owned by the United States department of energy or a licensee of the nuclear regulatory commission and (b) permitted by the department and operated in compliance with the provisions of this chapter. However, prior to disposal, or as a part of disposal, all reasonable methods of treatment, detoxification, neutralization, or other waste management methodologies designed to mitigate hazards associated with these wastes shall be employed, as required by applicable federal and state laws and regulations."

This language from the RCW clearly allows for mixed waste EHW disposal at Hanford when other applicable laws and regulations are followed. In addition, adding reference to WAC 173-303-700 makes it clear what is meant in the regulations by the EHW facility at Hanford, even though this facility was never built. Lastly, a similar sentence exists in the chemical testing methods publication in Section 2.B.1, 4th paragraph (proposed at page 9 in that document). Ecology should ensure that the regulations and the chemical testing methods document are consistent on this matter.

***Tell us how your recommendation will improve the proposed rule amendments:***

The change will bring the regulations in line with legal disposal requirements and state law.

***Signature:*** Tony McKarns

***Date:*** March 4, 2009



# RULE-MAKING PROPOSAL COMMENT FORM

## Dangerous Waste Regulations, Chapter 173-303 WAC

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Indicate if your comment is on the federal or state requirements:  Federal  State

Section No. WAC 173-303-400 Page No. 140-144 Citation No. Various under -400(3)(c)

### ***Please state your comment, question, or recommendation:***

Ecology should have to prepare a new/ revised cost benefit and least burdensome analysis for EPA's Burden Reduction Rule (71 FR 16862, April 4, 2006) before finalizing the decision not to adopt many of its provisions.

### ***Explain your concern:***

Ecology has not provided a summary in the Preliminary Cost Benefit and Least Burdensome Analyses document on EPA's Burden Reduction Rule (71 FR 16862, April 4, 2006) that demonstrates Ecology has complied with the state law requirements for the Administrative Procedures Act in RCW 34.05.328(2). RCW 34.05.328(2) states:

"(2) In making its determinations pursuant to subsection (1)(b) through (h) of this section, the agency shall place in the rule-making file documentation of sufficient quantity and quality so as to persuade a reasonable person that the determinations are justified."

A review of the Preliminary Cost Benefit and Least Burdensome Analyses shows that Ecology is only incorporating some of EPA's burden reduction rule (page 2 under Purpose). However, Page 4 also states: "There will be qualitative savings from simplifying requirements". Ecology then follows on page 9 of the qualitative savings section to only discuss the aspect they are proposing to adopt, on groundwater monitoring. There is no discussion on the other many aspects of EPA's Burden Reduction Rule, which Ecology rejects. Finally on page 12 of the Preliminary Cost Benefit and Least Burdensome Analyses, Ecology states:

"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."

Another alternative would have been to adopt the burden reduction rule in its entirety, but apparently, Ecology failed to even consider that alternative. This statement demonstrates that Ecology did not provide an analysis of each aspect of the Burden Reduction Rule nor did it articulate any rational basis for its claim that the proposed Ecology rule is the least burdensome alternative for those required to comply with it [RCW 34.05.328(1)(e)]. Without the complete analysis, state law requirements have not been met with this rulemaking. The Ecology action is not in accordance with law and lacks a rational basis.

### ***Tell us how your recommendation will improve the proposed rule amendments:***

Performing a new/ revised Preliminary Cost Benefit and Least Burdensome Analyses for each aspect of the Burden Reduction Rule will then comply with state law requirements.

***Signature:*** Tony McKarns

***Date:*** March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

## Dangerous Waste Regulations, Chapter 173-303 WAC

Filed on January 15, 2009

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City ST Zip: Richland, WA 99352

Indicate if your comment is on the federal or state requirements:  Federal  State

Section No. WAC 173-303-400 Page No. 140-144 Citation No. Various under - 400(3)(c)

### ***Please state your comment, question, or recommendation:***

Ecology should not be able to claim a cost benefit and least burdensome analysis for EPA's Burden Reduction Rule (71 FR 16862, April 4, 2006) is "not applicable" for a federal rule under RCW 34.05.328.

### ***Explain your concern:***

When EPA publishes a final rule that benefits both the regulators and the regulated community, [i.e., Burden Reduction Rule (71 FR 16862, April 4, 2006)], a State must have an articulated rational basis to explain its failure to adopt such a broadly beneficial regulation. Lacking such a rational basis, the State action appears to be arbitrary. The EPA rule does not alter the strictness of environmental standards; it makes their application more reasonable. The EPA has stated in the federal register on page 16899, "this rule will provide significant benefits to EPA, states, and the regulated community, without compromising human health or the environmental protection." RCW 34.05.328 then provides the foundation for performing the analysis to arrive at the appropriate rule in Washington State. The lack of the legally applicable analysis renders Ecology's rejection of EPA's appear capricious and not in accordance with applicable law.

Ecology then states on page 15 of the Preliminary Cost Benefit and Least Burdensome Analyses "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." In addition, on pages 20-22 of the Preliminary Cost Benefit and Least Burdensome Analyses, the table states "NA" [analysis not required] and "N" [necessary to retain existing rule]. This statement and these classifiers appear inappropriate for the burden reduction rule.

In fact, RCW 34.05.328 does not provide a legal or rational basis for Ecology's assertion that the cost benefit and least burdensome analysis requirement does not apply to adoption or rejection of this EPA rule. None of the seven reasons cited in RCW 34.05.328(5)(b) apply to this circumstance. Furthermore, RCW 19.85 only exempts Ecology from performing a small business economic impact statement in certain circumstances.

After reading EPA's final rule, it appears to this commenter that a proper Preliminary Cost Benefit and Least Burdensome Analysis, performed as required by Washington law, would have concluded Ecology should adopt each of EPA's burden reduction initiatives.

### ***Tell us how your recommendation will improve the proposed rule amendments:***

Performing a new/revised Preliminary Cost Benefit and Least Burdensome Analyses for each aspect of the Burden Reduction Rule will then comply with state law requirements.

Signature: Tony McKarns

Date: March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

## Dangerous Waste Regulations, Chapter 173-303 WAC

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Address: PO Box 500, MSIN A5-15

City ST Zip: Richland, WA 99352

Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. WAC 173-303-515 Page No. 153 Citation No. -515(3) and (4)

***Please state your comment, question, or recommendation:***

Delete proposed added sentence in each of these subsections.

***Explain your concern:***

The added sentence requires use of the specified methods in WAC 173-303-110(3), as proposed, for all laboratory analyses used in analyzing used oil. We object to Ecology's approach for mandatory use of the methods specified in -110(3), unless those methods are the only one capable of measuring a particular property (e.g. toxicity characteristic leaching procedure). See our comments on -110(3)(a).

***Tell us how your recommendation will improve the proposed rule amendments:***

Incorporates only the methods required for compliance into the Dangerous Waste Regulations.

***Signature:*** Tony McKarns

***Date:*** March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

## Dangerous Waste Regulations, Chapter 173-303 WAC

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Indicate if your comment is on the federal or state requirements:  Federal  State

Section No. WAC 173-303-515 Page No. 153 Citation No. -515(3) and (4)

***Please state your comment, question, or recommendation:***

Delete proposed added sentence in each of these subsections.

***Explain your concern:***

The proposed amendment makes the use of SW-846 analytical methods mandatory for all generators of used oil that are using the rebuttable presumption and levels used oil burned for energy recovery since this is the only provision where analytical methods are used in the referenced subsections of -515. This is confusing to the regulated community in the following ways:

The generator is required to determine if used oil is mixed with a dangerous waste. In many relevant cases, it is not possible to determine if the used oil has been mixed with a dangerous waste simply by testing the waste; this must be determined through process knowledge. For example, the presence of chromium in excess of designation levels would not necessarily indicate mixing; the chromium may have resulted from use of the oil. This is the responsibility of the generator to determine.

A generator would perform designation on oily waste, i.e. used oil that has been mixed with something else, not on used oil (as defined). See, e.g., Ecology letter of 6/25/97 to Thomas Williams.

In order to demonstrate compliance with the rebuttable presumption regarding halogen levels, Ecology has allowed generators to utilize the Chlor-D-Tect kit for measurement. ("Used Oil Facts", cited above.) While it is an EPA-approved method, it is not listed in SW-846. Hence Ecology is removing this convenient and adequately accurate method for demonstrating compliance prior to burning used oil as fuel.

In addition, Hanford currently uses an EPA 600 series method, method 200.8 for analysis of mercury in used oil. The laboratory recommends use of this method. Used oil analysis should not be limited to SW-846 methods. Ecology has allowed 600 series methods in the Chemical Testing Methods publication on page 15, Section 3.1. Ecology should allow similar flexibility in WAC 173-303.

***Tell us how your recommendation will improve the proposed rule amendments:***

Providing flexibility of methods improves selection of methods appropriate for the matrix, consistent with EPA guidance (70 FR 34545, June 14, 2005) which states: "A major problem with the prescriptive-or mandated methods approach is that it can lead to data of poor quality which can result in an incorrect assessment of compliance."

Signature: Tony McKarns

Date: March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

## Dangerous Waste Regulations, Chapter 173-303 WAC

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Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. WAC 173-303-610 Page No. 190 and 194 Citation No. -610(6) and (11)

***Please state your comment, question, or recommendation:***

Delete the requirement to use an independent qualified registered professional engineer and replace it with qualified professional engineer.

***Explain your concern:***

Ecology has not adopted Federal rule changes from the burden reduction final rule (Federal Register April 4, 2006) which allow qualified Professional Engineers (PEs) employed by the same company to certify several regulatory-required reports (e.g. certification of closure and post closure). Ecology contends that to do so would "lessen the current level of human and environmental protection that reduce access to available information or that risk a conflict of interest". We do not believe the use of licensed, in-house PEs has the potential to lessen the level of protection, and in some cases may actually increase the level of protection. We agree with EPA's evaluation of the use of in-house PEs (71 FR 16861, 4/6/06, at p. 16869):

"We believe that a professional engineer, regardless of whether he/she is independent is able to give fair and technical review because of the programs established by the state licensing boards. It is not clear to us that an in-house engineer faces a greater economic temptation than an independent engineer seeking to cultivate an ongoing relationship with a client. This is a central mission of state licensing boards. If certifications are provided when the facts do not warrant certification, the professional engineer is subject to penalties, including the loss of license and the possibility of fines. Professional engineers employed by a facility are more familiar with its own particular situation and are in a position to provide more on-site review and oversight of the activity being certified."

Use of independent PEs for this purpose often results in more time and cost to the regulated community. For instance, independent PEs must first be oriented to the facility as well as the specific item(s) they are expected to certify, and they must provide on-site oversight that may be redundant to facility PEs providing oversight of the same activity (e.g. construction).

***Tell us how your recommendation will improve the proposed rule amendments:***

This recommendation will improve the rule just as EPA did in their final rule.

***Signature:*** Tony McKarns

***Date:*** March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

## Dangerous Waste Regulations, Chapter 173-303 WAC

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Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. WAC 173-303-640 Page No. 214 Citation No. -640(4)(h)(i)(ii)

***Please state your comment, question, or recommendation:***

Delete the requirement to use an independent qualified registered professional engineer and replace it with just a qualified professional engineer.

***Explain your concern:***

Ecology has not adopted Federal rule changes from the burden reduction final rule (Federal Register April 4, 2006) which allow qualified Professional Engineers (PEs) employed by the same company to certify several regulatory-required reports (e.g. schedule and procedure for tank assessment). Ecology contends that to do so would lessen the current level of human and environmental protection, reduce access to available information, or risk a conflict of interest. We do not believe the use of licensed, in-house PEs has the potential to lessen the level of protection, and in some cases may actually increase the level of protection. We agree with EPA's evaluation of the use of in-house PEs (71 FR 16861, 4/6/06, at p. 16869):

We believe that a professional engineer, regardless of whether he/she is independent is able to give fair and technical review because of the programs established by the state licensing boards. It is not clear to us that an in-house engineer faces a greater economic temptation than an independent engineer seeking to cultivate an ongoing relationship with a client. This is a central mission of state licensing boards. If certifications are provided when the facts do not warrant certification, the professional engineer is subject to penalties, including the loss of license and the possibility of fines. Professional engineers employed by a facility are more familiar with its own particular situation and are in a position to provide more on-site review and oversight of the activity being certified.

Use of independent PEs for this purpose often results in more time and cost to the regulated community. For instance, independent PEs must first be oriented to the facility as well as the specific item(s) they are expected to certify, and they must provide on-site oversight that may be redundant to facility PEs providing oversight of the same activity (e.g. construction).

***Tell us how your recommendation will improve the proposed rule amendments:***

This recommendation will improve the rule just as EPA did in their final rule.

***Signature:*** Tony McKarns

***Date:*** March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

## Dangerous Waste Regulations, Chapter 173-303 WAC

Filed on January 15, 2009

First and Last Name: Tony McKarns

Organization or Affiliation: Department of Energy, Richland Operations Office

Address: PO Box 500, MSIN A5-15

City ST Zip: Richland, WA 99352

Indicate if your comment is on the federal or state requirements:

Federal  
 State

Section No. WAC 173-303-640

Page No. 215

Citation No. -640(6)

***Please state your comment, question, or recommendation:***

Ecology needs to adopt the burden reduction rule provision to allow weekly inspections instead of daily inspections by adding the words from 40 CFR 264.195(c) and (d) into -640(6).

***Explain your concern:***

Ecology is proposing not to adopt a burden reduction initiative from EPA shifting the visual inspection of tank systems from daily to weekly. Ecology's rationale for not adopting this rule, as given in the Draft Rule Summary, is that reduced inspections could lessen the current level of human or environmental protection, reduce access to available information, or risk a conflict of interest. However, as required under the EPA regulations, a tank system owner or operator must have automated leak detection systems that promptly notify personnel of leaks (or an equivalent workplace practice) in order to qualify for the reduced inspection frequency. As a result, there is no significant potential for reduced protection inherent in the adoption of this rule. Also note that the requirement to inspect data gathered from the monitoring of leak detection equipment remains unchanged, so that a failure of the leak detection equipment is still monitored daily.

For daily inspections to be necessary when a leak would be promptly detected in any event, one must presume that tanks are either subject to instantaneous failure, or that structural damage to a tank such as corrosion can occur so rapidly that daily inspections are needed. If a tank is subject to instantaneous failure, even daily inspections are unlikely to prevent such failures. External corrosion of a tank is unlikely to occur in such a rapid fashion that the integrity will be compromised within a week, unless incompatible materials have been introduced into the tank (or perhaps if the tank has been sabotaged). A well-designed and managed tank system should not be subject to failure from within due to incompatible wastes, and WAC 173-303-640(5)(a) already proscribes the introduction of such materials into any tank system.

At present, Ecology is planning to retain daily inspections as a state-only requirement. We recommend that the requirement be adjusted to weekly frequency, as it has been in the Federal regulations.

***Tell us how your recommendation will improve the proposed rule amendments:***

The allowance of weekly inspection will save the regulated community money on inspection costs while maintaining protection of human health and the environment.

***Signature:*** Tony McKarns

***Date:*** March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

## Dangerous Waste Regulations, Chapter 173-303 WAC

Filed on January 15, 2009

First and Last Name: Tony McKarns

Organization or Affiliation: Department of Energy, Richland Operations Office

Address: PO Box 500, MSIN A5-15

City ST Zip: Richland, WA 99352

Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. WAC 173-303-645 Page No. 10-11 Citation No. -645(9)(d) and (g)

***Please state your comment, question, or recommendation:***

We support Ecology's inclusion of the Burden Reduction Rule provision for groundwater monitoring.

***Explain your concern:***

There is no concern with this comment.

***Tell us how your recommendation will improve the proposed rule amendments:***

Finalizing the rule as proposed will provide the stated benefits to groundwater monitoring programs.

***Signature:*** Tony McKarns

***Date:*** March 4, 2009



# RULE-MAKING PROPOSAL COMMENT FORM

## Dangerous Waste Regulations, Chapter 173-303 WAC

Filed on January 15, 2009

First and Last Name: Tony McKarns

Organization or Affiliation: Department of Energy, Richland Operations Office

Address: PO Box 500, MSIN A5-15

City ST Zip: Richland, WA 99352

Indicate if your comment is on the federal or state requirements:  Federal  State

Section No. WAC 173-303-695 Page No. 77 Citation No. -695

***Please state your comment, question, or recommendation:***

Delete the sentence added to use a qualified registered professional engineer.

***Explain your concern:***

Ecology has not adopted Federal rule changes from the burden reduction final rule (Federal Register April 4, 2006) which allow qualified Professional Engineers (PEs) employed by the same company to certify several regulatory-required reports (e.g. containment building design). Ecology contends that to do so would lessen the current level of human and environmental protection, reduce access to available information, or risk a conflict of interest. We do not believe the use of licensed, in-house PEs has the potential to lessen the level of protection, and in some cases may actually increase the level of protection. We agree with EPA's evaluation of the use of in-house PEs (71 FR 16861, 4/6/06, at p. 16869):

We believe that a professional engineer, regardless of whether he/she is independent is able to give fair and technical review because of the programs established by the state licensing boards. It is not clear to us that an in-house engineer faces a greater economic temptation than an independent engineer seeking to cultivate an ongoing relationship with a client. This is a central mission of state licensing boards. If certifications are provided when the facts do not warrant certification, the professional engineer is subject to penalties, including the loss of license and the possibility of fines. Professional engineers employed by a facility are more familiar with its own particular situation and are in a position to provide more on-site review and oversight of the activity being certified.

Use of independent PEs for this purpose often results in more time and cost to the regulated community. For instance, independent PEs must first be oriented to the facility as well as the specific item(s) they are expected to certify, and they must provide on-site oversight that may be redundant to facility PEs providing oversight of the same activity (e.g. construction).

Note also that the reference to 40 CFR 264.1101(c)(4) is incorrect. The correct reference is 40 CFR 264.1101(c)(2).

***Tell us how your recommendation will improve the proposed rule amendments:***

This recommendation will improve the rule just as EPA did in their final rule.

***Signature:*** Tony McKarns

***Date:*** March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

## Dangerous Waste Regulations, Chapter 173-303 WAC

Filed on January 15, 2009

First and Last Name: Tony McKarns

Organization or Affiliation: Department of Energy, Richland Operations Office

Address: PO Box 500, MSIN A5-15

City ST Zip: Richland, WA 99352

Indicate if your comment is on the federal or state requirements:  Federal  State

Section No. WAC 173-303-690 Page No. 74 Citation No. -690(3)

***Please state your comment, question, or recommendation:***

Delete this proposed addition.

***Explain your concern:***

The added sentence requires use of the specified methods in WAC 173-303-110(3)(a), as proposed, for all laboratory analyses used to determine whether a waste is subject to Subpart AA. We object to Ecology's approach for mandatory use of the methods specified in -110(3), unless those methods are the only one capable of measuring a particular property (e.g. toxicity characteristic leaching procedure). See our comments on -110(3)(a). In addition, this sentence only allows SW-846 test methods [as referenced in subsection (3)(a)], and not the other test methods incorporated in -110(3)(b)-(h). Some of these test methods are incorporated at -110(3) for the express purpose of meeting the requirements of 40 CFR 264 Subpart AA, incorporated by reference; see -110(3)(g)(i) through (viii). All of these requirements have been preserved in 40 CFR 260.11; hence, if Ecology intends to preserve the methods of compliance with the requirements incorporated by reference, this addition is unnecessary.

***Tell us how your recommendation will improve the proposed rule amendments:***

Incorporates only the methods required for compliance into the Dangerous Waste Regulations.

***Signature:*** Tony McKarns

***Date:*** March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

## Dangerous Waste Regulations, Chapter 173-303 WAC

Filed on January 15, 2009

First and Last Name: Tony McKarns

Organization or Affiliation: Department of Energy, Richland Operations Office

Address: PO Box 500, MSIN A5-15

City ST Zip: Richland, WA 99352

Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. WAC 173-303-691 Page No. 75 Citation No. -691(3)

***Please state your comment, question, or recommendation:***

Delete this proposed addition.

***Explain your concern:***

The added sentence requires use of the specified methods in WAC 173-303-110(3)(a), as proposed, for all laboratory analyses used in connection with determining whether a waste is subject to Subpart BB. We object to Ecology's approach for mandatory use of the methods specified in -110(3), unless those methods are the only one capable of measuring a particular property (e.g. toxicity characteristic leaching procedure). See our comments on -110(3)(a). In addition, this sentence only allows SW-846 test methods, and not the other test methods incorporated in -110(3)(b)-(h). Some of these test methods are incorporated at -110(3) for the express purpose of meeting the requirements of 40 CFR 264 Subpart BB, incorporated by reference; see -110(3)(g)(i) through (viii). All of these requirements have been preserved in 40 CFR 260.11; hence, if Ecology intends to preserve the methods of compliance with the requirements incorporated by reference, this addition is unnecessary.

***Tell us how your recommendation will improve the proposed rule amendments:***

Incorporates only the methods required for compliance into the Dangerous Waste Regulations.

***Signature:*** Tony McKarns

***Date:*** March 4, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

Filed on January 15, 2009

**First and Last Name:** Tony Miskho

**Organization or Affiliation:** Ch2M Hill Plaeau Remediation Company

**Address:** PO Box 1600, MSIN H8-45

**City ST Zip:** Richland, WA 99352-1600

**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** CTM Chapter 1    **Page No.** 2    **Citation No.** 1.2, 4<sup>th</sup> paragraph

***Please state your comment, question, or recommendation:***

Reword the last two sentences of this paragraph as follows: "There are two categories of persistent dangerous wastes: halogenated organic compounds (HOC) and polycyclic aromatic hydrocarbons (PAH). HOC and PAH are discussed in Chapter 3."

***Explain your concern:***

The wording proposed is confusing and implies that there may be more categories of persistent dangerous waste than are discussed.

**Tell us how your recommendation will improve the proposed rule amendments:**

Clarity in guidance

**Signature:** Tony Miskho

**Date:** March 4, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

Filed on January 15, 2009

**First and Last Name:** Tony Miskho

**Organization or Affiliation:** Ch2M Hill Plaeau Remediation Company

**Address:** PO Box 1600, MSIN H8-45

**City ST Zip:** Richland, WA 99352-1600

**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** CTM Chapter 1 **Page No.** 2 **Citation No.** 1.3, 1<sup>st</sup> paragraph

**Please state your comment, question, or recommendation:**

Reword the first two sentences of this paragraph to read: "In 2005, EPA deleted use of certain SW-846 test methods to designate dangerous waste. Ecology has decided to continue to require the use of these methods."

**Explain your concern:**

The statement "...SW-846 methods were no longer required by RCRA..." is factually incorrect. EPA retained use of SW-846 in the final rule (70 FR 34538, 6/14/2005) for methods that measure "method-defined parameters" (Table 3, Page 34547). EPA states on Page 34547 that "It is the application of a method in a regulation that determines whether a method is being used to analyze a required method-defined parameter – not simply whether the method is listed in §260.11."

Further, the imposition of SW-846 methods in the manner proposed here actually adds new requirements that did not previously exist. For example, in *Chemical Testing Methods for Designating Dangerous Waste*, Section 3.1, the third paragraph states *Washington State continues to require SW-846 methods for all designation analyses unless otherwise specified.* (Emphasis added.) However, in many cases, non-method-defined parameters methods in SW-846 have never been mandatory under either the Federal or the State program. Ecology's revisions to WAC 173-303-110 and to *Chemical Testing Methods for Designating Dangerous Waste* make these non-method-defined parameters mandatory. None of Ecology's technical or financial analyses of this change has considered this impact.

IF Ecology does not adopt the cited Methods Innovation Rule, re-institute the specific SW-846 test methods that were deleted in that rule. These methods were clearly identified in the final rule (Table 4, Page 34548). Ecology's current approach results in a significant, possibly unanticipated, impact on the regulated community.

We also note that not "All retained SW-846 Test Methods are discussed in Chapter 3". This statement may need to be revised or deleted. See our comments on Chapter 3.

**Tell us how your recommendation will improve the proposed rule amendments:**

Minimizes unnecessary impact on the regulated community; clarifies what SW-846 methods remain mandatory under State rules.

**Signature:** Tony Miskho

**Date:** March 4, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

**Filed on January 15, 2009**

**First and Last Name:** Tony Miskho

**Organization or Affiliation:** Ch2M Hill Plaeau Remediation Company

**Address:** PO Box 1600, MSIN H8-45

**City ST Zip:** Richland, WA 99352-1600

**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** CTM Chapter 1      **Page No.** 2 & 3      **Citation No.** Pg 2: §1.2, 4<sup>th</sup> paragraph  
Pg 3: endnote 3

**Please state your comment, question, or recommendation:**

Remove the sentence in Section 1.2, and revise Endnote 3 to be consistent with past rulemakings on sufficient knowledge/existing knowledge as follows:

- o Chapter 1, 1.2 Dangerous Waste Characteristics and Criteria, 4<sup>th</sup> paragraph: delete the following sentence:

This sentence is not needed in this paragraph, because Endnote 3 is attached to the preceding sentence.

- o Chapter 1 Endnote 3: “Book designation is allowable with existing knowledge of waste. The generator must attempt to understand the process that created the waste and attempt to identify the toxic constituents and associated concentrations for waste designation purposes. According to WAC 173-303-100(5)(a), if a person knows only some of the toxic constituents in the waste or only some of the constituent concentrations, and if the waste is undesignated for those known constituents or concentrations, then the waste is not designated for toxicity under WAC 173-303-100(5). More information on book designation can be found in WAC 173-303-100.”

**Explain your concern:**

The concern is that there are a few places in the document where Ecology’s language on book designation is different from what Ecology has stated in the 1993 past responsiveness summary. Ecology’s proposed changes appear to be a policy shift on when book designation is allowable. Ecology has not articulated any book designation policy change in this rulemaking. These issues pertain to what is considered ‘sufficient’ when reading WAC 173-303-100(5) and -100(5)(a).

(5) Toxicity criteria. Except as provided in WAC 173-303-070 (4) or (5), a person must determine if a solid waste meets the toxicity criteria under this section by following either the instructions for book designation, **when his knowledge of the waste is sufficient**, or by testing the waste using the biological testing methods adopted under WAC 173-303-110(3).

(a) Except as provided in WAC 173-303-070(4), **if a person knows only some of the toxic constituents in the waste or only some of the constituent concentrations, and if the waste is undesignated for those known constituents or concentrations, then the waste is not designated for toxicity under this subsection.**

In a past responsiveness summary, Publication 93-92, October 1993, Ecology asserts the following with respect to designation requirements for state-only criteria:

*“The proposed rule integrates both concepts into a single state-only section called ‘criteria.’ Under the proposed criteria section a generator typically needs only to apply existing knowledge of waste constituents and concentrations when designating under this section, including carcinogens (see proposed WAC 173-303-100(5)(a), (6)(a) & (7)(b)). A generator may choose or be required by Ecology to*

*determine the applicable constituents and concentrations, but a generator is not automatically required to designate wastes per the criteria.”*

**Note:** The quote above was part of Ecology’s response to Comment 22, which stated: *Several commenters’ expressed concern that the proposed rule **requires** designation by the criteria”*. (All emphases are in original printing)

Further understanding of this provision as intended by Ecology is provided in response to Comment 27, where Ecology clarifies the intent of WAC 173-303-100 as follows:

*A waste that is either designated or not designated in accordance with the requirements set forth in the proposed dangerous waste criteria section, WAC 173-303-100, would be considered to be “properly determined” (see previous comment) under that section in the proposed rule. If the criteria section does not require specific knowledge regarding constituents or concentrations, then existing knowledge is sufficient.*

The 'previous comment' referenced above by Ecology was Comment 26, where Ecology clarified the expressed concern by saying: *As the commenter pointed out, the word ‘designate’ means that a waste **has been determined to be a dangerous waste** under the rule. The proposed rule will be amended such that the words “proper designation” will be converted to “determining whether or not it designated and/or designated properly in WAC 173-303-070(3)(c)(ii)(B) and WAC 173-303-070(4). (emphasis added)*

Hanford is aware that Ecology may require generators to test their waste in accordance with WAC 173-303-070(4). However, such testing is not considered a reason for retroactive changes to dangerous waste criteria determinations performed using available knowledge, as noted in the following text from the Ecology response to Comment 33:

*If a solid waste stream is determined not to be designated as a toxic dangerous waste using book designation method, and is later determined by bioassay to be designated, the designation would not change retroactively, only from the time that the new information became known. Waste, which had been disposed of prior to the new information becoming available, would not be regulated as dangerous waste. Any newly generated, or any remaining on-site, would be designated...*

So when completing a book designation under WAC 173-303-100(5), existing knowledge is sufficient, and a generator is not obligated to seek additional information on a waste in order to complete a book designation.

**Tell us how your recommendation will improve the proposed revisions:**

The change will clarify testing is not required to perform a book designation, consistent with past rulemaking efforts on WAC 173-303, and makes Section 1.2 consistent with Section 3.7.

**Signature:** Tony Miskho

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**Date:** March 4, 2009

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**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

**Filed on January 15, 2009**

**First and Last Name:** Tony Miskho

**Organization or Affiliation:** Ch2M Hill Plaeau Remediation Company

**Address:** PO Box 1600, MSIN H8-45

**City ST Zip:** Richland, WA 99352-1600

**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** CTM Chapter 1    **Page No.** 2    **Citation No.** 1.3

**Please state your comment, question, or recommendation:**

Ecology should add a statement to the text saying that the list of constituents in Appendix 5 will remain consistent with EPA's list of constituents in 40 CFR 264, Appendix IX.

**Explain your concern:**

In Section 1.3, second paragraph, Ecology discusses the 40 CFR 264, Appendix IX table contained in Appendix 5. The commenter is concerned Ecology will add constituents to the appendix when EPA has not added them to 40 CFR 264, Appendix IX.

**Tell us how your recommendation will improve the proposed revisions:**

With Ecology, making a commitment to keep the lists of constituents the same, Ecology will minimize the problems that can be created during enforcement activities and when EPA looks at the state's authorized program.

**Signature:** Tony Miskho

**Date:** March 4, 2009



**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***  
**Filed on January 15, 2009**

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**Address:** PO Box 1600, MSIN H8-45

**City ST Zip:** Richland, WA 99352-1600

**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** CTM Chapter 2    **Page No.** 4-13    **Citation No.** N/A

**Please state your comment, question, or recommendation:**

Ecology should change the numbering in Section 2 to match Section 3. Specifically, change the "A" and "B" sections to numbers.

**Explain your concern:**

The "A" and "B" numbering make it difficult to find information in Section 2.

**Tell us how your recommendation will improve the proposed revisions:**

Improve the usefulness of the document.

**Signature:** Tony Miskho

**Date:** March 4, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

**Filed on January 15, 2009**

**First and Last Name:** Tony Miskho

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**Address:** PO Box 1600, MSIN H8-45

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**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** CTM Chapter 2      **Page No.** 4 & 13      **Citation No.** Pg. 4, 2.A.1.3  
Pg. 13, endnote 1

**Please state your comment, question, or recommendation:**

Replace Section A.1.3, 2<sup>nd</sup> paragraph and Endnote 2, with guidance that supports the new regulatory definition of oxidizer; and delete information about NFPA unless a correlation exists to the International Fire Code.

**Explain your concern:**

It appears Ecology needs to take a new approach to oxidizers in the *Chemical Testing Methods for Designating Dangerous Waste*, because the NFPA approach to classification of oxidizers does not line up with the new approach being taken for oxidizers in WAC 173-303-090(5)(a)(iv).

Ecology has not identified a correlation between NFPA oxidizers and the definition in the Dangerous Waste Regulations. NFPA uses the term 'combustible material' in the definitions of their classes. The WAC text talks about combustion of organic matter. There is also no information to support a position that all four classes of oxidizer under NFPA meet the WAC text above.

Also, the container management regulations in WAC 173-303-630(8) rely in the International Fire Code instead of the NFPA. Guidance in this document should be based on oxidizers recognized by the International Fire Code.

**Tell us how your recommendation will improve the proposed revisions:**

Aligning guidance with regulatory requirements will improve compliance.

**Signature:** Tony Miskho

**Date:** March 4, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

Filed on January 15, 2009

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**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** CTM Chapter 2      **Page No.** 5      **Citation No.** A.1.4.1

**Please state your comment, question, or recommendation:**

The text for the Regulatory Definition, Ignitable Liquids should repeat verbatim the text from WAC 173-303-090(5)(a)(i). This requires adding text: "other than an aqueous solution containing less than 24 percent alcohol by volume".

**Explain your concern:**

This text within the *Chemical Testing Methods for Designating Dangerous Waste* does not match the text in WAC 173-303. Ecology did not provide an explanation for this, and the reader suspects Ecology is trying to "plain talk" the regulations. Ecology should not plain talk the regulations due to the potential for misinterpretations, and for each place in *Chemical Testing Methods for Designating Dangerous Waste* where WAC 173-303 language is used, WAC 173-303 language should be repeated verbatim.

**Tell us how your recommendation will improve the proposed revisions:**

Having the *Chemical Testing Methods for Designating Dangerous Waste* text match text in the WAC 173-303 will improve compliance and help ensure the regulations are being properly implemented.

**Signature:** Tony Miskho

**Date:** March 4, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

Filed on January 15, 2009

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**Organization or Affiliation:** Ch2M Hill Plaeau Remediation Company

**Address:** PO Box 1600, MSIN H8-45

**City ST Zip:** Richland, WA 99352-1600

**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** CTM Chapter 2    **Page No.** 5    **Citation No.** A.1.4.2

***Please state your comment, question, or recommendation:***

A reference to EPA methods for identifying ignitable solids should be included in Section A.1.4.2 or added to Section 3.

***Explain your concern:***

EPA has established SW-846 Methods 1030 and 1050 as indicator tests for identifying ignitable solids. These methods should be referenced in the *Chemical Testing Methods for Designating Dangerous Waste* as tests that a generator may use to indicate whether a waste should be designated as an ignitable solid.

***Tell us how your recommendation will improve the proposed revisions:***

Provide generators with the current EPA-recognized methods for designating wastes as ignitable solids.

**Signature:** Tony Miskho

**Date:** March 4, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

**Filed on January 15, 2009**

**First and Last Name:** Tony Miskho

**Organization or Affiliation:** Ch2M Hill Plaeau Remediation Company

**Address:** PO Box 1600, MSIN H8-45

**City ST Zip:** Richland, WA 99352-1600

**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** CTM Chapter 2      **Page No.** 5      **Citation No.** A.1.4.2

**Please state your comment, question, or recommendation:**

The text Regulatory Definition, Ignitable Solids should repeat verbatim the text from WAC 173-303-090(5)(a)(ii). Replace the word "catching" with "causing". Add the word "and" after Item 2 and before Item 3. Item 1 and Item 2 do not operate independently of Item 3.

**Explain your concern:**

This text within the *Chemical Testing Methods for Designating Dangerous Waste* does not match the text in WAC 173-303. Ecology did not provide an explanation for this, and the reader suspects Ecology is trying to "plain talk" the regulations. Ecology should not plain talk the regulations due to the potential for misinterpretations, and for each place in *Chemical Testing Methods for Designating Dangerous Waste* where WAC 173-303 language is used, WAC 173-303 language should be repeated verbatim.

**Tell us how your recommendation will improve the proposed revisions:**

Having the *Chemical Testing Methods for Designating Dangerous Waste* text match text in the WAC 173-303 will improve compliance and help ensure the regulations are being properly implemented.

**Signature:** Tony Miskho

**Date:** March 4, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***  
**Filed on January 15, 2009**

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**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** CTM Chapter 2 **Page No.** 5 **Citation No.** A.1.4.4

***Please state your comment, question, or recommendation:***

A reference to EPA methods for identifying oxidizing solids should be included in Section A.1.4.4 or added to Section 3.

***Explain your concern:***

EPA has established SW-846 Method 1040 as an indicator test for identifying oxidizing solids. This method should be referenced in the *Chemical Testing Methods for Designating Dangerous Waste* as a test that a generator may use to indicate whether a waste should be designated under this criterion.

***Tell us how your recommendation will improve the proposed revisions:***

Provide generators with the current EPA-recognized method for designating wastes as oxidizing solids.

**Signature:** Tony Miskho

**Date:** March 4, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

Filed on January 15, 2009

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**Address:** PO Box 1600, MSIN H8-45

**City ST Zip:** Richland, WA 99352-1600

**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** CTM Chapter 2      **Page No.** 6      **Citation No.** A.3.1

**Please state your comment, question, or recommendation:**

The text on Reactivity introduction. Delete Items 1 through 6, since the regulatory definition is repeated in Section A.3.4 and rely on the text in Section A.3.4, and also matches the text from WAC 173-303-090(7)(a)(i) through (viii).

**Explain your concern:**

This text within the *Chemical Testing Methods for Designating Dangerous Waste* does not match the text in WAC 173-303. Ecology did not provide an explanation for this, and the reader suspects Ecology is trying to “plain talk” the regulations. Ecology should not plain talk the regulations due to the potential for misinterpretations, and for each place in *Chemical Testing Methods for Designating Dangerous Waste* where WAC 173-303 language is used, WAC 173-303 language should be repeated verbatim.

**Tell us how your recommendation will improve the proposed revisions:**

Having the *Chemical Testing Methods for Designating Dangerous Waste* text match text in the WAC 173-303 will improve compliance and help ensure the regulations are being properly implemented.

**Signature:** Tony Miskho

**Date:** March 4, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

**Filed on January 15, 2009**

**First and Last Name:** Tony Miskho

**Organization or Affiliation:** Ch2M Hill Plaeau Remediation Company

**Address:** PO Box 1600, MSIN H8-45

**City ST Zip:** Richland, WA 99352-1600

**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** CTM Chapter 2 **Page No.** 7 **Citation No.** A.3.2

***Please state your comment, question, or recommendation:***

To be consistent with EPA interpretation of water reactive wastes, delete the last paragraph in Section A.3.2.

***Explain your concern:***

Identification of sodium hydroxide and concentrated sulfuric acid in Section A.3.2 is confusing. These substances are not considered "water reactive" under EPA's interpretation of the D003 category. EPA has stated that water reactive wastes are generated on a sporadic basis and generally in low volumes. Most generators of reactive wastes are aware that their wastes possess this property and require special handling since these wastes are dangerous to the generators' own operation and rarely generated from unreactive feedstocks. Potential examples of water reactive wastes identified by EPA include agents GB (isopropyl methyl phosphonofluoridate), VX (Ethyl-S-diisopropyl aminoethyl methyl phosphonothidoate), and HD (Bis-2-chloroethyl sulfide). There are no suitable test methods for identifying water reactive wastes.

In order to maintain consistency with the intended EPA designation of D003 water reactive wastes, the discussion of sodium hydroxide and concentrated sulfuric acid should be deleted from Section A.3.2. (For further information on EPA's interpretation of "water reactive" wastes, refer to 55 Federal Register 22553, 54 Federal Register 48426, 45 Federal Register 33110, and 43 Federal Register 58952).

***Tell us how your recommendation will improve the proposed revisions:***

Maintain consistency with EPA interpretation of federally coded waste designations.

**Signature:** Tony Miskho

**Date:** March 4, 2009



**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***  
**Filed on January 15, 2009**

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**Address:** PO Box 1600, MSIN H8-45

**City ST Zip:** Richland, WA 99352-1600

**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** CTM Chapter 2    **Page No.** 8    **Citation No.** A.4.2, 3<sup>rd</sup> paragraph

**Please state your comment, question, or recommendation:**

Revise the last two sentences of A.4.2, third paragraph to read: Table 3.5.1 (Chapter 3) lists the regulatory thresholds for the 40 TCLP constituents and identifies potential SW-846 methods for each constituent. Other methods may be equally reliable.”

**Explain your concern:**

Ecology’s proposed wording makes the use of specific analytical methods for analysis of the TCLP extract mandatory. As noted in our comments at WAC 173-303-110(3)(a) and *Chemical Testing Methods for Designating Dangerous Waste*, Section 1.3, this actually imposes new testing method requirements on the regulated community.

**Tell us how your recommendation will improve the proposed rule amendments:**

Preserve flexibility in use of test methods for compliance into the Dangerous Waste Regulations.

**Signature:** Tony Miskho

**Date:** March 4, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

Filed on January 15, 2009

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**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** CTM Chapter 2      **Page No.** 9      **Citation No.** B.1, Item 3

**Please state your comment, question, or recommendation:**

Reword the text to match WAC 173-303-070(5)(c)(i): "The waste designates as state-only DW and will be burned for energy recovery as used oil, the generator must determine if it also designates as an EHW. Used oil cannot be burned for energy recovery if it is EHW or contains PCBs above 2ppm."

**Explain your concern:**

This text within the *Chemical Testing Methods for Designating Dangerous Waste* does not match the text in WAC 173-303. Ecology did not provide an explanation for this, and the reader suspects Ecology is trying to "plain talk" the regulations. Ecology should not plain talk the regulations due to the potential for misinterpretations, and for each place in *Chemical Testing Methods for Designating Dangerous Waste* where WAC 173-303 language is used, WAC 173-303 language should be used verbatim.

**Tell us how your recommendation will improve the proposed revisions:**

Having the *Chemical Testing Methods for Designating Dangerous Waste* text match text in the WAC 173-303 will improve compliance and help ensure the regulations are being properly implemented.

**Signature:** Tony Miskho

**Date:** March 4, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***  
**Filed on January 15, 2009**

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**Address:** PO Box 1600, MSIN H8-45

**City ST Zip:** Richland, WA 99352-1600

**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** CTM Chapter 2      **Page No.** 9      **Citation No.** B.1, Item 4

***Please state your comment, question, or recommendation:***  
Revise Section B.1, Item 4 to reflect provisions of State law regarding disposal of EHW.

***Explain your concern:***  
Item 4, appropriately identifies WAC 173-303-140(5), (6), (7) as allowing land disposal of EHW under certain circumstances, but fails to acknowledge State law at RCW 70.105.050(2) allowing for disposal of radioactive EHW provided certain conditions are met. Item 4, last sentence should be revised to include the State law provision.

***Tell us how your recommendation will improve the proposed revisions:***  
Reflect provisions of State law.

**Signature:** Tony Miskho

**Date:** March 4, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

Filed on January 15, 2009

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**Organization or Affiliation:** Ch2M Hill Plaeau Remediation Company

**Address:** PO Box 1600, MSIN H8-45

**City ST Zip:** Richland, WA 99352-1600

**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** CTM Chapter 2    **Page No.** 10    **Citation No.** B.1.2, 1<sup>st</sup> paragraph

**Please state your comment, question, or recommendation:**

Change text to read:

In order to avoid regulating low concentrations and to meet statutory requirements,<sup>15</sup> ...

**Explain your concern:**

Ecology is describing a statutory provision, yet identifies it as a regulatory requirement. Ecology should change the term to reflect reference to the RCW for Endnote 15.

**Tell us how your recommendation will improve the proposed revisions:**

Improves understanding that the sentence is describing a statute

**Signature:** Tony Miskho

**Date:** March 4, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

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**Address:** PO Box 1600, MSIN H8-45

**City ST Zip:** Richland, WA 99352-1600

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 **State**

**Section No.** CTM Chapter 2    **Page No.** 10    **Citation No.** B.1.2, 2<sup>nd</sup> paragraph

**Please state your comment, question, or recommendation:**

For EHW designation of PAHs, change waste code "WP01" to "WP03" to match WAC 173-303-100(6).

**Explain your concern:**

The waste code provided does not match WAC 173-303-100(6). For each place in *Chemical Testing Methods for Designating Dangerous Waste* where WAC 173-303 language is used, WAC 173-303 language should be repeated verbatim.

**Tell us how your recommendation will improve the proposed revisions:**

Having the *Chemical Testing Methods for Designating Dangerous Waste* text match text in the WAC 173-303 will improve compliance and help ensure the regulations are being properly implemented.

**Signature:** Tony Miskho

**Date:** March 4, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

Filed on January 15, 2009

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**Address:** PO Box 1600, MSIN H8-45

**City ST Zip:** Richland, WA 99352-1600

**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** CTM Chapter 2    **Page No.** 11    **Citation No.** B.3.2, 2<sup>nd</sup> bullet, & last paragraph

**Please state your comment, question, or recommendation:**

The text in Section B.3.2.2, on the definition of persistence and the last paragraph should repeat verbatim the definition of persistence in WAC 173-303-040 (Ecology cannot change the half-life from 365 days to 60-days (2 months) without a regulatory change).

**Explain your concern:**

This text within the *Chemical Testing Methods for Designating Dangerous Waste* does not match the text in WAC 173-303. Ecology did not provide an explanation for this, and the definition in WAC 173-303-040 contains different text on half-life. For each place in *Chemical Testing Methods for Designating Dangerous Waste* where WAC 173-303 language is used, WAC 173-303 language should be repeated verbatim.

**Tell us how your recommendation will improve the proposed revisions:**

Having the *Chemical Testing Methods for Designating Dangerous Waste* text match text in the WAC 173-303 will improve compliance and help ensure the regulations are being properly implemented.

**Signature:** Tony Miskho

**Date:** March 4, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***  
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**Address:** PO Box 1600, MSIN H8-45

**City ST Zip:** Richland, WA 99352-1600

**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** CTM Chapter 3 **Page No.** 15 **Citation No.** 3.1, 3<sup>rd</sup> paragraph

**Please state your comment, question, or recommendation:**

Delete the first sentence of this paragraph.

**Explain your concern:**

This sentence requires the use of SW-846 methods for "all designation analyses". As noted in our comments on WAC 173-303-110(3)(a) and *Chemical Testing Methods for Designating Dangerous Waste*, Section 1.3, this is inaccurate, misinterprets the intent of the Methods Innovation Rule, and imposes new requirements on the regulated community.

**Tell us how your recommendation will improve the proposed rule amendments:**

Preserve flexibility in methods required for compliance with the Dangerous Waste Regulations.

**Signature:** Tony Miskho

**Date:** March 4, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***  
**Filed on January 15, 2009**

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**Address:** PO Box 1600, MSIN H8-45

**City ST Zip:** Richland, WA 99352-1600

**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** CTM Chapter 3      **Page No.** 15      **Citation No.** 3.1, list of methods

**Please state your comment, question, or recommendation:**

Add Item 8 to the list of methods "Analytical Methods for Petroleum Hydrocarbons, Ecology publication" ECY 97-602, June 1997, to the list, because the Ecology publication contains methods used for soil and water analyses.

**Explain your concern:**

The concern is that the list does not contain all the methods Ecology should recognize. At the bottom of page 15, Ecology has included a list of 7 methods that are recognized. We encourage Ecology to include this list, however, Ecology should also add the "Analytical Methods for Petroleum Hydrocarbons", Ecology publication ECY 97-602, June 1997, to the list, because the Ecology publication contains methods used for soil and water analyses.

**Tell us how your recommendation will improve the proposed revisions:**

Adding the Ecology publication to the list will add another analytical tool to the list.

**Signature:** Tony Miskho

**Date:** March 4, 2009



**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***  
**Filed on January 15, 2009**

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**Address:** PO Box 1600, MSIN H8-45

**City ST Zip:** Richland, WA 99352-1600

**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** CTM Chapter 3    **Page No.** 15    **Citation No.** 3.1, list of methods

**Please state your comment, question, or recommendation:**

We support Ecology providing a list of methods that are recognized in addition to SW-846 methods. We encourage Ecology to make sure this concept is included in the final WAC 173-303 text as well.

**Explain your concern:**

The concern, which has been raised without this list, is that rulemaking petitions would have to be processed at the expense of the regulators and the regulated community to be able to use other nationally recognized standards.

**Tell us how your recommendation will improve the proposed revisions:**

Maintaining this list will save money by minimizing rulemaking petitions.

**Signature:** Tony Miskho

**Date:** March 4, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

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**Address:** PO Box 1600, MSIN H8-45

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**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** CTM Chapter 3    **Page No.** 17    **Citation No.** 3.4, 2<sup>nd</sup> paragraph

**Please state your comment, question, or recommendation:**

Change the 2<sup>nd</sup> paragraph to read:

Although narrow-range pH paper can be purchased with a distinct color change for every 0.5 pH unit, pH paper is not as accurate as pH meters. For this reason, pH paper cannot be used to designate definitively whether a waste is corrosive or non-corrosive. Narrow range pH paper can be used, however to confirm knowledge about a waste. In a chemical laboratory, the pH is typically determined using a pH meter. A pH meter is a voltage-measuring device attached to a pair of electrodes. When the tips of the electrodes are placed in a solution, the pH of the solution shows on the meter. The pH meter is calibrated using predetermined standards. pH readings are only applicable for aqueous solutions.

**Explain your concern:**

The paragraph makes a statement about pH paper, which should be qualified. Although we agree that pH paper is not a “method”, it is a tool that can be used to confirm knowledge about a waste. For example, if water is suspected to be rain water under a nitric acid tank, narrow range pH paper can easily confirm that the liquid is not a release of nitric acid. Ecology should add a sentence to address this situation.

**Tell us how your recommendation will improve the proposed revisions:**

The text will clarify how pH paper can be used as part of a generator’s knowledge.

**Signature:** Tony Miskho

**Date:** March 4, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

Filed on January 15, 2009

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**Address:** PO Box 1600, MSIN H8-45

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**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** CTM Chapter 3      **Page No.** 19      **Citation No.** Table 3.6

**Please state your comment, question, or recommendation:**

Consistent with the comment provided on Section A.4.2, change the last column heading of the table to read: "Potential SW-846 Test Methods After 1311".

**Explain your concern:**

Ecology's proposed wording makes the use of specific analytical methods for analysis of the TCLP extract mandatory. As noted in our comments at WAC 173-303-110(3)(a) and *Chemical Testing Methods for Designating Dangerous Waste*, Section 1.3, this actually imposes new testing method requirements on the regulated community. The testing requirements are new because Method 1311 does not specify by what method the TCLP extract needs to be tested.

**Tell us how your recommendation will improve the proposed revisions:**

Preserve flexibility in use of test methods for compliance into the Dangerous Waste Regulations.

**Signature:** Tony Miskho

**Date:** March 4, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

**Filed on January 15, 2009**

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**Address:** PO Box 1600, MSIN H8-45

**City ST Zip:** Richland, WA 99352-1600

**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** CTM Chapter 3      **Page No.** 20      **Citation No.** 3.7

**Please state your comment, question, or recommendation:**

Change Item one to reflect that book designations can be accomplished with other existing knowledge besides product information. Change the text to read: "1. Book designate using existing knowledge (for example product information, records, testing data, etc)."

**Explain your concern:**

Ecology should not limit the information used to book designate a waste to "product information". Many sources of information (knowledge) should be allowed for use in a book designation. Examples of these sources of information include:

- Mass balance from a controlled process that has a specified input for a specified output
- Material safety data sheets (MSDSs) on unused chemical products
- Test data from a surrogate sample
- Analytical data on the waste or a waste from a similar process
- Interview information
- Logbooks
- Procurement records
- Qualified analytical data
- Processes and/or methods
- Process flow charts
- Inventory sheets
- Vendor information
- Mass balance from an uncontrolled process (e.g., spill cleanup)
- Mass balance from a process with variable inputs and outputs (e.g., washing/cleaning methods).

Modifying the text will not limit a book designation to product information.

**Tell us how your recommendation will improve the proposed revisions:**

Preserves existing flexibility for using information in book designations.

**Signature:** Tony Miskho

**Date:** March 4, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

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**Organization or Affiliation:** Ch2M Hill Plaeau Remediation Company

**Address:** PO Box 1600, MSIN H8-45

**City ST Zip:** Richland, WA 99352-1600

**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** CTM Chapter 3      **Page No.** 20-21      **Citation No.** 3.7, 4<sup>th</sup> paragraph

**Please state your comment, question, or recommendation:**

Delete references to ECOTOX and HSDB.

**Explain your concern:**

These references have data quality issues and their mandatory use results in a large number of new wastes being regulated pursuant to the Dangerous Waste Regulations. See our comments on WAC 173-303-100(2), (3) and (5).

**Tell us how your recommendation will improve the proposed rule amendments:**

Limits use of inaccurate or inapplicable information in designation of state-only dangerous waste.

**Signature:** Tony Miskho

**Date:** March 4, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***  
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**Address:** PO Box 1600, MSIN H8-45

**City ST Zip:** Richland, WA 99352-1600

**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** CTM Chapter 3      **Page No.** 29      **Citation No.** 3.8.8.3

**Please state your comment, question, or recommendation:**

Delete Section 3.8.8.3.

**Explain your concern:**

This guidance is likely to be very difficult to implement for the regulated community. Most polymers contain an additive of some kind. Many of the types of additives described in this section are manufacturer's proprietary information and not included in information provided to buyers of polymer products (e.g. MSDS) due to the low levels present. They also vary from manufacturer to manufacturer and batch to batch. Concentration may also be affected by use of the product. As a result, generators would have to conduct detailed laboratory analyses, or obtain manufacturers' proprietary information, to satisfy Ecology's requirement that "polymers containing these additives must be evaluated for persistence", as articulated here and in Section 3.8.8 introductory text. [Emphasis added.]

As an example, regulated generators of waste polyvinyl chloride (PVC) pipe would have to determine, from each manufacturer and potentially each batch of pipe procured, which additives (as discussed in this section) the pipe contains. Alternatively, the generator might try to utilize one of the analytical methods in Table 3.8.6 to detect the additives present. For PVC pipe, the only likely method to be applicable is Method 8270C<sup>69</sup>, which Ecology admits is expensive and has limitations<sup>70</sup>. Although neither of these options (obtaining detailed composition information or lab analysis) is practical, Ecology's guidance in this section makes it clear that the generator is no longer allowed to presume that polymers are nonregulated – unless the generator manufactured the polymer and/or has knowledge of the additives.

The test methods provided for determining HOC provided in Section 3.8.4 cannot distinguish between the halogens contained in the additives and those in the polymer. Hence testing in the absence of process knowledge will not determine if the waste is regulated. A generator would have to test the waste by one or more of the methods in Table 3.8.6; it is not certain that additives would be identified by these methods either, as the additive would have to be identified outright (e.g. some phthalate plasticizers) or as a tentatively identified compound under Method 8270C. A conservative assumption might have to be made, resulting in many polymer wastes not intended to be regulated by this guidance unnecessarily managed as regulated waste. The Decision Tree in Section 3.8.5 appears to make this type of conservative assumption more likely.

As another point, *Chemical Testing Methods for Designating Dangerous Waste's* insistence here that additives "must" be evaluated seems to conflict with WAC 173-303-100(6)(a), where the generator only must evaluate the known constituents or known concentrations of their waste. The regulations do not appear to require that additives be identified in each case.

Finally, Ecology has not explained how it differentiates between HOCs which are chemically bound in the product (where degradation of the polymer would be required to release the HOC to the environment) and those which are physically bound (releasable if the polymer was crushed) in terms of the potential for persistence in the environment. Until a better approach to regulating additives in polymers can be designed, Ecology should delete all added discussions about polymer additives from this document.

**Tell us how your recommendation will improve the proposed rule amendments:**

Precludes regulation of low-hazard compounds in designation of state-only dangerous waste.

**Signature:** Tony Miskho

**Date:** March 4, 2009

<sup>69</sup> This method has been updated to 8270D in the February 2007 update to SW-846

<sup>70</sup> CTM Section 3.9.3

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

**Filed on January 15, 2009**

**First and Last Name:** Tony Miskho

**Organization or Affiliation:** Ch2M Hill Plaeau Remediation Company

**Address:** PO Box 1600, MSIN H8-45

**City ST Zip:** Richland, WA 99352-1600

**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** CTM Chapter 3      **Page No.** 31      **Citation No.** Endnote 1

**Please state your comment, question, or recommendation:**

Replace Chapter 3, Endnote 1, with the following:

“Washington State's accreditation program for laboratories is described in Chapter 173-050 WAC. Although using an accredited laboratory is not required to comply with WAC 173-303, Ecology recommends using accredited laboratories. Washington State's laboratory accreditation program will, for a fee, provide certification for any method. The certification is typically specific for a matrix like water, soil, etc. Before using an accredited laboratory, the generator should verify the lab is accredited for both the analytical method and his sample matrix. A list of accredited labs is available on the Internet at <http://www.wa.gov/ecology> or can be obtained from any of Ecology's regional offices. For more information about Ecology's laboratory accreditation program, refer to publication #91-34, *Procedural Manual for the Environmental Laboratory Accreditation Program*, January 1994.”

**Explain your concern:**

Ecology is proposing Chapter 3, Endnote 1 that describes laboratory accreditation. The way the endnote is written, an uninformed reader could conclude that laboratory accreditation is required by WAC 173-303. Because laboratory accreditation is not required by the dangerous waste regulations, Ecology should modify the endnote as proposed in order to preclude this perception.

**Tell us how your recommendation will improve the proposed revisions:**

This change will improve the understanding that using an accredited laboratory is not required for compliance with WAC 173-303.

**Signature:** Tony Miskho

**Date:** March 4, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

**Filed on January 15, 2009**

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**Address:** PO Box 1600, MSIN H8-45

**City ST Zip:** Richland, WA 99352-1600

**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** CTM Appendix 1      **Page No.** 33      **Citation No.** Glossary

**Please state your comment, question, or recommendation:**

Definition of Persistence: Replace definition with text from WAC 133-303-040. (change "2 moths (60 days)" to "one year (365 days)")

**Explain your concern:**

This text within the *Chemical Testing Methods for Designating Dangerous Waste* does not match the text in WAC 173-303. Ecology did not provide an explanation for this, and the definition in WAC 173-303-040 contains different text on half-life. For each place in *Chemical Testing Methods for Designating Dangerous Waste* where WAC 173-303 language is used, WAC 173-303 language should be repeated verbatim.

**Tell us how your recommendation will improve the proposed revisions:**

Having the *Chemical Testing Methods for Designating Dangerous Waste* text match text in the WAC 173-303 will improve compliance and help ensure the regulations are being properly implemented.

**Signature:** Tony Miskho

**Date:** March 4, 2009



# RULE-MAKING PROPOSAL COMMENT FORM

## Chemical Testing Methods for Designating Dangerous Waste

Filed on January 15, 2009

**First and Last Name:** Tony Miskho

**Organization or Affiliation:** CH2M Hill Plateau Remediation Company

**Address:** P.O. Box 1600, Mail stop H8-45

**City ST Zip:** Richland, WA 99352-1600

**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** CTM 2      **Page No.** 10      **Citation No.** 2.B.1.1

**Please state your comment, question, or recommendation:**

Ecology should provide detailed guidance on how to determine which fish toxicity data is usable for book designation.

**Explain your concern:**

When looking up information on fish toxicity, several types of studies can be encountered that cause a waste designator to question whether the data should be used for book designating a waste. The current guidance/requirements for fish hierarchy need to be supplemented.

Clarification on the following topics is requested:

1. Should only adult fish data be used?
2. Should only static tests results be used (similar to the Bioassay testing procedure)?

**Tell us how your recommendation will improve the proposed rule amendments:**

Clarification of what data can be discarded will be useful in more appropriate book designations.

**Signature:** Tony Miskho,

**Date:** March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

## Chemical Testing Methods for Designating Dangerous Waste

Filed on January 15, 2009

**First and Last Name:** Tony Miskho

**Organization or Affiliation:** Ch2M Hill Plaeau Remediation Company

**Address:** PO Box 1600, MSIN H8-45

**City ST Zip:** Richland, WA 99352-1600

**Indicate if your comment is on the federal or state requirements:**

Federal  
 State

**Section No.** CTM Chapter 1    **Page No.** 2    **Citation No.** 1.2, 4<sup>th</sup> paragraph

***Please state your comment, question, or recommendation:***

Reword the last two sentences of this paragraph as follows: "There are two categories of persistent dangerous wastes: halogenated organic compounds (HOC) and polycyclic aromatic hydrocarbons (PAH). HOC and PAH are discussed in Chapter 3."

***Explain your concern:***

The wording proposed is confusing and implies that there may be more categories of persistent dangerous waste than are discussed.

**Tell us how your recommendation will improve the proposed rule amendments:**

Clarity in guidance

**Signature:** Tony Miskho

**Date:** March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

## Chemical Testing Methods for Designating Dangerous Waste

Filed on January 15, 2009

First and Last Name: Tony Miskho

Organization or Affiliation: Ch2M Hill Plaeau Remediation Company

Address: PO Box 1600, MSIN H8-45

City ST Zip: Richland, WA 99352-1600

Indicate if your comment is on the federal or state requirements:

Federal  
 State

Section No. CTM Chapter 1 Page No. 2 Citation No. 1.3, 1<sup>st</sup> paragraph

**Please state your comment, question, or recommendation:**

Reword the first two sentences of this paragraph to read: "In 2005, EPA deleted use of certain SW-846 test methods to designate dangerous waste. Ecology has decided to continue to require the use of these methods."

**Explain your concern:**

The statement "...SW-846 methods were no longer required by RCRA..." is factually incorrect. EPA retained use of SW-846 in the final rule (70 FR 34538, 6/14/2005) for methods that measure "method-defined parameters" (Table 3, Page 34547). EPA states on Page 34547 that "It is the application of a method in a regulation that determines whether a method is being used to analyze a required method-defined parameter – not simply whether the method is listed in §260.11."

Further, the imposition of SW-846 methods in the manner proposed here actually adds new requirements that did not previously exist. For example, in *Chemical Testing Methods for Designating Dangerous Waste*, Section 3.1, the third paragraph states *Washington State continues to require SW-846 methods for all designation analyses unless otherwise specified.* (Emphasis added.) However, in many cases, non-method-defined parameters methods in SW-846 have never been mandatory under either the Federal or the State program. Ecology's revisions to WAC 173-303-110 and to *Chemical Testing Methods for Designating Dangerous Waste* make these non-method-defined parameters mandatory. None of Ecology's technical or financial analyses of this change has considered this impact.

IF Ecology does not adopt the cited Methods Innovation Rule, re-institute the specific SW-846 test methods that were deleted in that rule. These methods were clearly identified in the final rule (Table 4, Page 34548). Ecology's current approach results in a significant, possibly unanticipated, impact on the regulated community.

We also note that not "All retained SW-846 Test Methods are discussed in Chapter 3". This statement may need to be revised or deleted. See our comments on Chapter 3.

**Tell us how your recommendation will improve the proposed rule amendments:**

Minimizes unnecessary impact on the regulated community; clarifies what SW-846 methods remain mandatory under State rules.

Signature: Tony Miskho

Date: March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

## Chemical Testing Methods for Designating Dangerous Waste

Filed on January 15, 2009

First and Last Name: Tony Miskho

Organization or Affiliation: Ch2M Hill Plaeau Remediation Company

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Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. CTM Chapter 1 Page No. 2 & 3 Citation No. Pg 2: §1.2, 4<sup>th</sup> paragraph  
Pg 3: endnote 3

### Please state your comment, question, or recommendation:

Remove the sentence in Section 1.2, and revise Endnote 3 to be consistent with past rulemakings on sufficient knowledge/existing knowledge as follows:

- Chapter 1, 1.2 Dangerous Waste Characteristics and Criteria, 4<sup>th</sup> paragraph: delete the following sentence:

This sentence is not needed in this paragraph, because Endnote 3 is attached to the preceding sentence.

- Chapter 1 Endnote 3: “Book designation is allowable with existing knowledge of waste. The generator must attempt to understand the process that created the waste and attempt to identify the toxic constituents and associated concentrations for waste designation purposes. According to WAC 173-303-100(5)(a), if a person knows only some of the toxic constituents in the waste or only some of the constituent concentrations, and if the waste is undesignated for those known constituents or concentrations, then the waste is not designated for toxicity under WAC 173-303-100(5). More information on book designation can be found in WAC 173-303-100.”

### Explain your concern:

The concern is that there are a few places in the document where Ecology’s language on book designation is different from what Ecology has stated in the 1993 past responsiveness summary. Ecology’s proposed changes appear to be a policy shift on when book designation is allowable. Ecology has not articulated any book designation policy change in this rulemaking. These issues pertain to what is considered 'sufficient' when reading WAC 173-303-100(5) and -100(5)(a).

(5) Toxicity criteria. Except as provided in WAC 173-303-070 (4) or (5), a person must determine if a solid waste meets the toxicity criteria under this section by following either the instructions for book designation, **when his knowledge of the waste is sufficient**, or by testing the waste using the biological testing methods adopted under WAC 173-303-110(3).

(a) Except as provided in WAC 173-303-070(4), **if a person knows only some of the toxic constituents in the waste or only some of the constituent concentrations, and if the waste is undesignated for those known constituents or concentrations, then the waste is not designated for toxicity under this subsection.**

In a past responsiveness summary, Publication 93-92, October 1993, Ecology asserts the following with respect to designation requirements for state-only criteria:

**“The proposed rule integrates both concepts into a single state-only section called ‘criteria.’ Under the proposed criteria section a generator typically needs only to apply existing knowledge of waste constituents and concentrations when designating under this section, including carcinogens (see**

*proposed WAC 173-303-100(5)(a), (6)(a) & (7)(b)). A generator may choose or be required by Ecology to determine the applicable constituents and concentrations, but a generator is not automatically required to designate wastes per the criteria.”*

**Note:** The quote above was part of Ecology’s response to Comment 22, which stated: *Several commenters’ expressed concern that the proposed rule **requires** designation by the criteria”*. (All emphases are in original printing)

Further understanding of this provision as intended by Ecology is provided in response to Comment 27, where Ecology clarifies the intent of WAC 173-303-100 as follows:

*A waste that is either designated or not designated in accordance with the requirements set forth in the proposed dangerous waste criteria section, WAC 173-303-100, would be considered to be “properly determined” (see previous comment) under that section in the proposed rule. If the criteria section does not require specific knowledge regarding constituents or concentrations, then existing knowledge is sufficient.*

The 'previous comment' referenced above by Ecology was Comment 26, where Ecology clarified the expressed concern by saying: *As the commenter pointed out, the word ‘designate’ means that a waste **has been determined to be a dangerous waste** under the rule. The proposed rule will be amended such that the words “proper designation” will be converted to “determining whether or not it designated and/or designated properly in WAC 173-303-070(3)(c)(ii)(B) and WAC 173-303-070(4). (emphasis added)*

Hanford is aware that Ecology may require generators to test their waste in accordance with WAC 173-303-070(4). However, such testing is not considered a reason for retroactive changes to dangerous waste criteria determinations performed using available knowledge, as noted in the following text from the Ecology response to Comment 33:

*If a solid waste stream is determined not to be designated as a toxic dangerous waste using book designation method, and is later determined by bioassay to be designated, the designation would not change retroactively, only from the time that the new information became known. Waste, which had been disposed of prior to the new information becoming available, would not be regulated as dangerous waste. Any newly generated, or any remaining on-site, would be designated...*

So when completing a book designation under WAC 173-303-100(5), existing knowledge is sufficient, and a generator is not obligated to seek additional information on a waste in order to complete a book designation.

**Tell us how your recommendation will improve the proposed revisions:**

The change will clarify testing is not required to perform a book designation, consistent with past rulemaking efforts on WAC 173-303, and makes Section 1.2 consistent with Section 3.7.

**Signature:** Tony Miskho

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**Date:** March 4, 2009

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**RULE-MAKING PROPOSAL COMMENT FORM**  
**Chemical Testing Methods for Designating Dangerous Waste**  
**Filed on January 15, 2009**

**First and Last Name:** Tony Miskho

**Organization or Affiliation:** Ch2M Hill Plaeau Remediation Company

**Address:** PO Box 1600, MSIN H8-45

**City ST Zip:** Richland, WA 99352-1600

**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** CTM Chapter 1    **Page No.** 2    **Citation No.** 1.3

**Please state your comment, question, or recommendation:**  
Ecology should add a statement to the text saying that the list of constituents in Appendix 5 will remain consistent with EPA's list of constituents in 40 CFR 264, Appendix IX.

**Explain your concern:**  
In Section 1.3, second paragraph, Ecology discusses the 40 CFR 264, Appendix IX table contained in Appendix 5. The commenter is concerned Ecology will add constituents to the appendix when EPA has not added them to 40 CFR 264, Appendix IX.

**Tell us how your recommendation will improve the proposed revisions:**  
With Ecology, making a commitment to keep the lists of constituents the same, Ecology will minimize the problems that can be created during enforcement activities and when EPA looks at the state's authorized program.

**Signature:** Tony Miskho

**Date:** March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

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- Federal**  
 **State**

**Section No.** CTM Chapter 2    **Page No.** 4-13    **Citation No.** N/A

**Please state your comment, question, or recommendation:**

Ecology should change the numbering in Section 2 to match Section 3. Specifically, change the "A" and "B" sections to numbers.

**Explain your concern:**

The "A" and "B" numbering make it difficult to find information in Section 2.

**Tell us how your recommendation will improve the proposed revisions:**

Improve the usefulness of the document.

**Signature:** Tony Miskho

**Date:** March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

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 State

Section No. CTM Chapter 2 Page No. 4 & 13 Citation No. Pg. 4, 2.A.1.3  
Pg. 13, endnote 1

**Please state your comment, question, or recommendation:**

Replace Section A.1.3, 2<sup>nd</sup> paragraph and Endnote 2, with guidance that supports the new regulatory definition of oxidizer; and delete information about NFPA unless a correlation exists to the International Fire Code.

**Explain your concern:**

It appears Ecology needs to take a new approach to oxidizers in the *Chemical Testing Methods for Designating Dangerous Waste*, because the NFPA approach to classification of oxidizers does not line up with the new approach being taken for oxidizers in WAC 173-303-090(5)(a)(iv).

Ecology has not identified a correlation between NFPA oxidizers and the definition in the Dangerous Waste Regulations. NFPA uses the term 'combustible material' in the definitions of their classes. The WAC text talks about combustion of organic matter. There is also no information to support a position that all four classes of oxidizer under NFPA meet the WAC text above.

Also, the container management regulations in WAC 173-303-630(8) rely in the International Fire Code instead of the NFPA. Guidance in this document should be based on oxidizers recognized by the International Fire Code.

**Tell us how your recommendation will improve the proposed revisions:**

Aligning guidance with regulatory requirements will improve compliance.

Signature: Tony Miskho

Date: March 4, 2009



# RULE-MAKING PROPOSAL COMMENT FORM

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 **State**

**Section No.** CTM Chapter 2 **Page No.** 5 **Citation No.** A.1.4.1

**Please state your comment, question, or recommendation:**

The text for the Regulatory Definition, Ignitable Liquids should repeat verbatim the text from WAC 173-303-090(5)(a)(i). This requires adding text: "other than an aqueous solution containing less than 24 percent alcohol by volume".

**Explain your concern:**

This text within the *Chemical Testing Methods for Designating Dangerous Waste* does not match the text in WAC 173-303. Ecology did not provide an explanation for this, and the reader suspects Ecology is trying to "plain talk" the regulations. Ecology should not plain talk the regulations due to the potential for misinterpretations, and for each place in *Chemical Testing Methods for Designating Dangerous Waste* where WAC 173-303 language is used, WAC 173-303 language should be repeated verbatim.

**Tell us how your recommendation will improve the proposed revisions:**

Having the *Chemical Testing Methods for Designating Dangerous Waste* text match text in the WAC 173-303 will improve compliance and help ensure the regulations are being properly implemented.

**Signature:** Tony Miskho

**Date:** March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

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 State

Section No. CTM Chapter 2 Page No. 5 Citation No. A.1.4.2

***Please state your comment, question, or recommendation:***

A reference to EPA methods for identifying ignitable solids should be included in Section A.1.4.2 or added to Section 3.

***Explain your concern:***

EPA has established SW-846 Methods 1030 and 1050 as indicator tests for identifying ignitable solids. These methods should be referenced in the *Chemical Testing Methods for Designating Dangerous Waste* as tests that a generator may use to indicate whether a waste should be designated as an ignitable solid.

***Tell us how your recommendation will improve the proposed revisions:***

Provide generators with the current EPA-recognized methods for designating wastes as ignitable solids.

Signature: Tony Miskho

Date: March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

## Chemical Testing Methods for Designating Dangerous Waste

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Section No. CTM Chapter 2 Page No. 5 Citation No. A.1.4.2

**Please state your comment, question, or recommendation:**

The text Regulatory Definition, Ignitable Solids should repeat verbatim the text from WAC 173-303-090(5)(a)(ii). Replace the word "catching" with "causing". Add the word "and" after Item 2 and before Item 3. Item 1 and Item 2 do not operate independently of Item 3.

**Explain your concern:**

This text within the *Chemical Testing Methods for Designating Dangerous Waste* does not match the text in WAC 173-303. Ecology did not provide an explanation for this, and the reader suspects Ecology is trying to "plain talk" the regulations. Ecology should not plain talk the regulations due to the potential for misinterpretations, and for each place in *Chemical Testing Methods for Designating Dangerous Waste* where WAC 173-303 language is used, WAC 173-303 language should be repeated verbatim.

**Tell us how your recommendation will improve the proposed revisions:**

Having the *Chemical Testing Methods for Designating Dangerous Waste* text match text in the WAC 173-303 will improve compliance and help ensure the regulations are being properly implemented.

Signature: Tony Miskho

Date: March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

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 **State**

**Section No.** CTM Chapter 2 **Page No.** 5 **Citation No.** A.1.4.4

***Please state your comment, question, or recommendation:***

A reference to EPA methods for identifying oxidizing solids should be included in Section A.1.4.4 or added to Section 3.

***Explain your concern:***

EPA has established SW-846 Method 1040 as an indicator test for identifying oxidizing solids. This method should be referenced in the *Chemical Testing Methods for Designating Dangerous Waste* as a test that a generator may use to indicate whether a waste should be designated under this criterion.

***Tell us how your recommendation will improve the proposed revisions:***

Provide generators with the current EPA-recognized method for designating wastes as oxidizing solids.

**Signature:** Tony Miskho

**Date:** March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

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 State

Section No. CTM Chapter 2 Page No. 6 Citation No. A.3.1

**Please state your comment, question, or recommendation:**

The text on Reactivity introduction. Delete Items 1 through 6, since the regulatory definition is repeated in Section A.3.4 and rely on the text in Section A.3.4, and also matches the text from WAC 173-303-090(7)(a)(i) through (viii).

**Explain your concern:**

This text within the *Chemical Testing Methods for Designating Dangerous Waste* does not match the text in WAC 173-303. Ecology did not provide an explanation for this, and the reader suspects Ecology is trying to "plain talk" the regulations. Ecology should not plain talk the regulations due to the potential for misinterpretations, and for each place in *Chemical Testing Methods for Designating Dangerous Waste* where WAC 173-303 language is used, WAC 173-303 language should be repeated verbatim.

**Tell us how your recommendation will improve the proposed revisions:**

Having the *Chemical Testing Methods for Designating Dangerous Waste* text match text in the WAC 173-303 will improve compliance and help ensure the regulations are being properly implemented.

Signature: Tony Miskho

Date: March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

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Indicate if your comment is on the federal or state requirements:

Federal  
 State

Section No. CTM Chapter 2 Page No. 7 Citation No. A.3.2

***Please state your comment, question, or recommendation:***

To be consistent with EPA interpretation of water reactive wastes, delete the last paragraph in Section A.3.2.

***Explain your concern:***

Identification of sodium hydroxide and concentrated sulfuric acid in Section A.3.2 is confusing. These substances are not considered "water reactive" under EPA's interpretation of the D003 category. EPA has stated that water reactive wastes are generated on a sporadic basis and generally in low volumes. Most generators of reactive wastes are aware that their wastes possess this property and require special handling since these wastes are dangerous to the generators' own operation and rarely generated from unreactive feedstocks. Potential examples of water reactive wastes identified by EPA include agents GB (isopropyl methyl phosphonofluoridate), VX (Ethyl-S-diisopropyl aminoethyl methyl phosphonothidoate), and HD (Bis-2-chloroethyl sulfide). There are no suitable test methods for identifying water reactive wastes.

In order to maintain consistency with the intended EPA designation of D003 water reactive wastes, the discussion of sodium hydroxide and concentrated sulfuric acid should be deleted from Section A.3.2. (For further information on EPA's interpretation of "water reactive" wastes, refer to 55 [Federal Register](#) 22553, 54 [Federal Register](#) 48426, 45 [Federal Register](#) 33110, and 43 [Federal Register](#) 58952).

***Tell us how your recommendation will improve the proposed revisions:***

Maintain consistency with EPA interpretation of federally coded waste designations.

Signature: Tony Miskho

Date: March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

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Section No. CTM Chapter 2 Page No. 8 Citation No. A.4.2, 3<sup>rd</sup> paragraph

**Please state your comment, question, or recommendation:**

Revise the last two sentences of A.4.2, third paragraph to read: Table 3.5.1 (Chapter 3) lists the regulatory thresholds for the 40 TCLP constituents and identifies potential SW-846 methods for each constituent. Other methods may be equally reliable.”

**Explain your concern:**

Ecology’s proposed wording makes the use of specific analytical methods for analysis of the TCLP extract mandatory. As noted in our comments at WAC 173-303-110(3)(a) and *Chemical Testing Methods for Designating Dangerous Waste*, Section 1.3, this actually imposes new testing method requirements on the regulated community.

**Tell us how your recommendation will improve the proposed rule amendments:**

Preserve flexibility in use of test methods for compliance into the Dangerous Waste Regulations.

Signature: Tony Miskho

Date: March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

## Chemical Testing Methods for Designating Dangerous Waste

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**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** CTM Chapter 2 **Page No.** 9 **Citation No.** B.1, Item 3

**Please state your comment, question, or recommendation:**

Reword the text to match WAC 173-303-070(5)(c)(i): "The waste designates as state-only DW and will be burned for energy recovery as used oil, the generator must determine if it also designates as an EHW. Used oil cannot be burned for energy recovery if it is EHW or contains PCBs above 2ppm."

**Explain your concern:**

This text within the *Chemical Testing Methods for Designating Dangerous Waste* does not match the text in WAC 173-303. Ecology did not provide an explanation for this, and the reader suspects Ecology is trying to "plain talk" the regulations. Ecology should not plain talk the regulations due to the potential for misinterpretations, and for each place in *Chemical Testing Methods for Designating Dangerous Waste* where WAC 173-303 language is used, WAC 173-303 language should be used verbatim.

**Tell us how your recommendation will improve the proposed revisions:**

Having the *Chemical Testing Methods for Designating Dangerous Waste* text match text in the WAC 173-303 will improve compliance and help ensure the regulations are being properly implemented.

**Signature:** Tony Miskho

**Date:** March 4, 2009



# RULE-MAKING PROPOSAL COMMENT FORM

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Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. CTM Chapter 2 Page No. 9 Citation No. B.1, Item 4

***Please state your comment, question, or recommendation:***

Revise Section B.1, Item 4 to reflect provisions of State law regarding disposal of EHW.

***Explain your concern:***

Item 4, appropriately identifies WAC 173-303-140(5), (6), (7) as allowing land disposal of EHW under certain circumstances, but fails to acknowledge State law at RCW 70.105.050(2) allowing for disposal of radioactive EHW provided certain conditions are met. Item 4, last sentence should be revised to include the State law provision.

***Tell us how your recommendation will improve the proposed revisions:***

Reflect provisions of State law.

Signature: Tony Miskho

Date: March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

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**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** CTM Chapter 2 **Page No.** 10 **Citation No.** B.1.2, 1<sup>st</sup> paragraph

**Please state your comment, question, or recommendation:**

Change text to read:

In order to avoid regulating low concentrations and to meet statutory requirements,<sup>15</sup> ...

**Explain your concern:**

Ecology is describing a statutory provision, yet identifies it as a regulatory requirement. Ecology should change the term to reflect reference to the RCW for Endnote 15.

**Tell us how your recommendation will improve the proposed revisions:**

Improves understanding that the sentence is describing a statute

**Signature:** Tony Miskho

**Date:** March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

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**Indicate if your comment is on the federal or state requirements:**

**Federal**

**State**

**Section No.** CTM Chapter 2 **Page No.** 10 **Citation No.** B.1.2, 2<sup>nd</sup> paragraph

**Please state your comment, question, or recommendation:**

For EHW designation of PAHs, change waste code "WP01" to "WP03" to match WAC 173-303-100(6).

**Explain your concern:**

The waste code provided does not match WAC 173-303-100(6). For each place in *Chemical Testing Methods for Designating Dangerous Waste* where WAC 173-303 language is used, WAC 173-303 language should be repeated verbatim.

**Tell us how your recommendation will improve the proposed revisions:**

Having the *Chemical Testing Methods for Designating Dangerous Waste* text match text in the WAC 173-303 will improve compliance and help ensure the regulations are being properly implemented.

**Signature:** Tony Miskho

**Date:** March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

## Chemical Testing Methods for Designating Dangerous Waste

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Indicate if your comment is on the federal or state requirements:

Federal

State

Section No. CTM Chapter 2 Page No. 11 Citation No. B.3.2, 2<sup>nd</sup> bullet, & last paragraph

**Please state your comment, question, or recommendation:**

The text in Section B.3.2.2, on the definition of persistence and the last paragraph should repeat verbatim the definition of persistence in WAC 173-303-040 (Ecology cannot change the half-life from 365 days to 60-days (2 months) without a regulatory change).

**Explain your concern:**

This text within the *Chemical Testing Methods for Designating Dangerous Waste* does not match the text in WAC 173-303. Ecology did not provide an explanation for this, and the definition in WAC 173-303-040 contains different text on half-life. For each place in *Chemical Testing Methods for Designating Dangerous Waste* where WAC 173-303 language is used, WAC 173-303 language should be repeated verbatim.

**Tell us how your recommendation will improve the proposed revisions:**

Having the *Chemical Testing Methods for Designating Dangerous Waste* text match text in the WAC 173-303 will improve compliance and help ensure the regulations are being properly implemented.

Signature: Tony Miskho

Date: March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

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**Indicate if your comment is on the federal or state requirements:**

**Federal**  
 **State**

**Section No.** CTM Chapter 3    **Page No.** 15    **Citation No.** 3.1, 3<sup>rd</sup> paragraph

**Please state your comment, question, or recommendation:**

Delete the first sentence of this paragraph.

**Explain your concern:**

This sentence requires the use of SW-846 methods for "all designation analyses". As noted in our comments on WAC 173-303-110(3)(a) and *Chemical Testing Methods for Designating Dangerous Waste*, Section 1.3, this is inaccurate, misinterprets the intent of the Methods Innovation Rule, and imposes new requirements on the regulated community.

**Tell us how your recommendation will improve the proposed rule amendments:**

Preserve flexibility in methods required for compliance with the Dangerous Waste Regulations.

**Signature:** Tony Miskho

**Date:** March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

## Chemical Testing Methods for Designating Dangerous Waste

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Indicate if your comment is on the federal or state requirements:

Federal

State

Section No. CTM Chapter 3

Page No. 15

Citation No. 3.1, list of methods

**Please state your comment, question, or recommendation:**

Add Item 8 to the list of methods "Analytical Methods for Petroleum Hydrocarbons, Ecology publication" ECY 97-602, June 1997, to the list, because the Ecology publication contains methods used for soil and water analyses.

**Explain your concern:**

The concern is that the list does not contain all the methods Ecology should recognize. At the bottom of page 15, Ecology has included a list of 7 methods that are recognized. We encourage Ecology to include this list, however, Ecology should also add the "Analytical Methods for Petroleum Hydrocarbons", Ecology publication ECY 97-602, June 1997, to the list, because the Ecology publication contains methods used for soil and water analyses.

**Tell us how your recommendation will improve the proposed revisions:**

Adding the Ecology publication to the list will add another analytical tool to the list.

Signature: Tony Miskho

Date: March 4, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
**Chemical Testing Methods for Designating Dangerous Waste**  
**Filed on January 15, 2009**

**First and Last Name:** Tony Miskho

**Organization or Affiliation:** Ch2M Hill Plaeau Remediation Company

**Address:** PO Box 1600, MSIN H8-45

**City ST Zip:** Richland, WA 99352-1600

**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** CTM Chapter 3    **Page No.** 15    **Citation No.** 3.1, list of methods

**Please state your comment, question, or recommendation:**

We support Ecology providing a list of methods that are recognized in addition to SW-846 methods. We encourage Ecology to make sure this concept is included in the final WAC 173-303 text as well.

**Explain your concern:**

The concern, which has been raised without this list, is that rulemaking petitions would have to be processed at the expense of the regulators and the regulated community to be able to use other nationally recognized standards.

**Tell us how your recommendation will improve the proposed revisions:**

Maintaining this list will save money by minimizing rulemaking petitions.

**Signature:** Tony Miskho

**Date:** March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

## Chemical Testing Methods for Designating Dangerous Waste

Filed on January 15, 2009

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**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** CTM Chapter 3 **Page No.** 17 **Citation No.** 3.4, 2<sup>nd</sup> paragraph

**Please state your comment, question, or recommendation:**

Change the 2<sup>nd</sup> paragraph to read:

Although narrow-range pH paper can be purchased with a distinct color change for every 0.5 pH unit, pH paper is not as accurate as pH meters. For this reason, pH paper cannot be used to designate definitively whether a waste is corrosive or non-corrosive. Narrow range pH paper can be used, however to confirm knowledge about a waste. In a chemical laboratory, the pH is typically determined using a pH meter. A pH meter is a voltage-measuring device attached to a pair of electrodes. When the tips of the electrodes are placed in a solution, the pH of the solution shows on the meter. The pH meter is calibrated using predetermined standards. pH readings are only applicable for aqueous solutions.

**Explain your concern:**

The paragraph makes a statement about pH paper, which should be qualified. Although we agree that pH paper is not a “method”, it is a tool that can be used to confirm knowledge about a waste. For example, if water is suspected to be rain water under a nitric acid tank, narrow range pH paper can easily confirm that the liquid is not a release of nitric acid. Ecology should add a sentence to address this situation.

**Tell us how your recommendation will improve the proposed revisions:**

The text will clarify how pH paper can be used as part of a generator’s knowledge.

**Signature:** Tony Miskho

**Date:** March 4, 2009



# RULE-MAKING PROPOSAL COMMENT FORM

## Chemical Testing Methods for Designating Dangerous Waste

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**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** CTM Chapter 3      **Page No.** 19      **Citation No.** Table 3.6

**Please state your comment, question, or recommendation:**

Consistent with the comment provided on Section A.4.2, change the last column heading of the table to read: "Potential SW-846 Test Methods After 1311".

**Explain your concern:**

Ecology's proposed wording makes the use of specific analytical methods for analysis of the TCLP extract mandatory. As noted in our comments at WAC 173-303-110(3)(a) and *Chemical Testing Methods for Designating Dangerous Waste*, Section 1.3, this actually imposes new testing method requirements on the regulated community. The testing requirements are new because Method 1311 does not specify by what method the TCLP extract needs to be tested.

**Tell us how your recommendation will improve the proposed revisions:**

Preserve flexibility in use of test methods for compliance into the Dangerous Waste Regulations.

**Signature:** Tony Miskho

**Date:** March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

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**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** CTM Chapter 3 **Page No.** 20 **Citation No.** 3.7

**Please state your comment, question, or recommendation:**

Change Item one to reflect that book designations can be accomplished with other existing knowledge besides product information. Change the text to read: "1. Book designate using existing knowledge (for example product information, records, testing data, etc)."

**Explain your concern:**

Ecology should not limit the information used to book designate a waste to "product information". Many sources of information (knowledge) should be allowed for use in a book designation. Examples of these sources of information include:

- Mass balance from a controlled process that has a specified input for a specified output
- Material safety data sheets (MSDSs) on unused chemical products
- Test data from a surrogate sample
- Analytical data on the waste or a waste from a similar process
- Interview information
- Logbooks
- Procurement records
- Qualified analytical data
- Processes and/or methods
- Process flow charts
- Inventory sheets
- Vendor information
- Mass balance from an uncontrolled process (e.g., spill cleanup)
- Mass balance from a process with variable inputs and outputs (e.g., washing/cleaning methods).

Modifying the text will not limit a book designation to product information.

**Tell us how your recommendation will improve the proposed revisions:**

Preserves existing flexibility for using information in book designations.

**Signature:** Tony Miskho

**Date:** March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

## Chemical Testing Methods for Designating Dangerous Waste

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**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** CTM Chapter 3      **Page No.** 20-21      **Citation No.** 3.7, 4<sup>th</sup> paragraph

**Please state your comment, question, or recommendation:**

Delete references to ECOTOX and HSDB.

**Explain your concern:**

These references have data quality issues and their mandatory use results in a large number of new wastes being regulated pursuant to the Dangerous Waste Regulations. See our comments on WAC 173-303-100(2), (3) and (5).

**Tell us how your recommendation will improve the proposed rule amendments:**

Limits use of inaccurate or inapplicable information in designation of state-only dangerous waste.

**Signature:** Tony Miskho

**Date:** March 4, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
**Chemical Testing Methods for Designating Dangerous Waste**  
**Filed on January 15, 2009**

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**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** CTM Chapter 3      **Page No.** 29      **Citation No.** 3.8.8.3

**Please state your comment, question, or recommendation:**

Delete Section 3.8.8.3.

**Explain your concern:**

This guidance is likely to be very difficult to implement for the regulated community. Most polymers contain an additive of some kind. Many of the types of additives described in this section are manufacturer's proprietary information and not included in information provided to buyers of polymer products (e.g. MSDS) due to the low levels present. They also vary from manufacturer to manufacturer and batch to batch. Concentration may also be affected by use of the product. As a result, generators would have to conduct detailed laboratory analyses, or obtain manufacturers' proprietary information, to satisfy Ecology's requirement that "polymers containing these additives must be evaluated for persistence", as articulated here and in Section 3.8.8 introductory text. [Emphasis added.]

As an example, regulated generators of waste polyvinyl chloride (PVC) pipe would have to determine, from each manufacturer and potentially each batch of pipe procured, which additives (as discussed in this section) the pipe contains. Alternatively, the generator might try to utilize one of the analytical methods in Table 3.8.6 to detect the additives present. For PVC pipe, the only likely method to be applicable is Method 8270C<sup>71</sup>, which Ecology admits is expensive and has limitations<sup>72</sup>. Although neither of these options (obtaining detailed composition information or lab analysis) is practical, Ecology's guidance in this section makes it clear that the generator is no longer allowed to presume that polymers are nonregulated – unless the generator manufactured the polymer and/or has knowledge of the additives.

The test methods provided for determining HOC provided in Section 3.8.4 cannot distinguish between the halogens contained in the additives and those in the polymer. Hence testing in the absence of process knowledge will not determine if the waste is regulated. A generator would have to test the waste by one or more of the methods in Table 3.8.6; it is not certain that additives would be identified by these methods either, as the additive would have to be identified outright (e.g. some phthalate plasticizers) or as a tentatively identified compound under Method 8270C. A conservative assumption might have to be made, resulting in many polymer wastes not intended to be regulated by this guidance unnecessarily managed as regulated waste. The Decision Tree in Section 3.8.5 appears to make this type of conservative assumption more likely.

As another point, *Chemical Testing Methods for Designating Dangerous Waste's* insistence here that additives "must" be evaluated seems to conflict with WAC 173-303-100(6)(a), where the generator only must evaluate the known constituents or known concentrations of their waste. The regulations do not appear to require that additives be identified in each case.

Finally, Ecology has not explained how it differentiates between HOCs which are chemically bound in the product (where degradation of the polymer would be required to release the HOC to the environment) and those which are physically bound (releasable if the polymer was crushed) in terms of the potential for persistence in the environment. Until a better approach to regulating additives in polymers can be designed, Ecology should delete all added discussions about polymer additives from this document.

**Tell us how your recommendation will improve the proposed rule amendments:**

Precludes regulation of low-hazard compounds in designation of state-only dangerous waste.

**Signature:** Tony Miskho

**Date:** March 4, 2009

<sup>71</sup> This method has been updated to 8270D in the February 2007 update to SW-846

<sup>72</sup> CTM Section 3.9.3

# RULE-MAKING PROPOSAL COMMENT FORM

## Chemical Testing Methods for Designating Dangerous Waste

Filed on January 15, 2009

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Organization or Affiliation: Ch2M Hill Plaeau Remediation Company

Address: PO Box 1600, MSIN H8-45

City ST Zip: Richland, WA 99352-1600

Indicate if your comment is on the federal or state requirements:

Federal  
 State

Section No. CTM Chapter 3 Page No. 31 Citation No. Endnote 1

**Please state your comment, question, or recommendation:**

Replace Chapter 3, Endnote 1, with the following:

"Washington State's accreditation program for laboratories is described in Chapter 173-050 WAC. Although using an accredited laboratory is not required to comply with WAC 173-303, Ecology recommends using accredited laboratories. Washington State's laboratory accreditation program will, for a fee, provide certification for any method. The certification is typically specific for a matrix like water, soil, etc. Before using an accredited laboratory, the generator should verify the lab is accredited for both the analytical method and his sample matrix. A list of accredited labs is available on the Internet at <http://www.wa.gov/ecology> or can be obtained from any of Ecology's regional offices. For more information about Ecology's laboratory accreditation program, refer to publication #91-34, *Procedural Manual for the Environmental Laboratory Accreditation Program*, January 1994."

**Explain your concern:**

Ecology is proposing Chapter 3, Endnote 1 that describes laboratory accreditation. The way the endnote is written, an uninformed reader could conclude that laboratory accreditation is required by WAC 173-303. Because laboratory accreditation is not required by the dangerous waste regulations, Ecology should modify the endnote as proposed in order to preclude this perception.

**Tell us how your recommendation will improve the proposed revisions:**

This change will improve the understanding that using an accredited laboratory is not required for compliance with WAC 173-303.

Signature: Tony Miskho

Date: March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

## Chemical Testing Methods for Designating Dangerous Waste

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Indicate if your comment is on the federal or state requirements:

Federal

State

Section No. CTM Appendix 1 Page No. 33 Citation No. Glossary

**Please state your comment, question, or recommendation:**

Definition of Persistence: Replace definition with text from WAC 133-303-040. (change "2 moths (60 days)" to "one year (365 days)")

**Explain your concern:**

This text within the *Chemical Testing Methods for Designating Dangerous Waste* does not match the text in WAC 173-303. Ecology did not provide an explanation for this, and the definition in WAC 173-303-040 contains different text on half-life. For each place in *Chemical Testing Methods for Designating Dangerous Waste* where WAC 173-303 language is used, WAC 173-303 language should be repeated verbatim.

**Tell us how your recommendation will improve the proposed revisions:**

Having the *Chemical Testing Methods for Designating Dangerous Waste* text match text in the WAC 173-303 will improve compliance and help ensure the regulations are being properly implemented.

Signature: Tony Miskho

Date: March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

## Chemical Testing Methods for Designating Dangerous Waste

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Indicate if your comment is on the federal or state requirements:  Federal  State

Section No. WAC 173-303-040 Page No. 8 Citation No. Definition of "Closure"

### ***Please state your comment, question, or recommendation:***

Revise this definition to read: "Closure" means the requirements applied by this chapter to certain generators and transporters, and to recycling, used oil, and TSD facilities, to ensure that they are secured in an acceptable manner (refer to "post-closure").

### ***Explain your concern:***

The proposed definition is very broad and results in the application of clean closure requirements to any dangerous waste management unit or recycling unit. The use of the word "and" between the two bullets proposed makes both mandatory in all cases. This conflicts with provisions in WAC 173-303 allowing some types of units to close without "cleaning up or decontaminating the unit and any areas affected by releases from the unit" under certain circumstances. See, for instance, WAC 173-303-640(8)(b), -660(9)(b), and -665(6). Ecology's proposed wording is also inconsistent with the applicability of closure and post-closure requirements given in WAC 173-303-610(1).

We note that Ecology intended this change to "reflect closure guidance"<sup>73</sup>, presumably Ecology Publication 94-111, revised May 2005. This publication is entitled "Guidance for Clean Closure of Dangerous Waste Units and Facilities". Hence broadening this definition is not appropriate for the types of units allowed to undergo landfill closure.

Further, "closure" is not "the process of taking a dangerous waste management unit or a recycling unit out of service ..." as proposed (and as stated in Publication 94-111, Section 1.0.) A unit must cease accepting waste (essentially, be removed from service) in order to begin closure; see WAC 173-303-610(3) and (4). The only "service" that remains during closure is to manage inventory properly until removed and perform the duties prescribed in the regulations. Publication 94-111, Section 1.0 states, "When closure is being carried out, a unit is referred to as 'closing' or 'in closure'." Such units do not seem to be accurately considered "in service".

Ecology still retains the ability to require appropriate closure requirements through application of WAC 173-303-610, permit requirements of WAC 173-303-806 and/or corrective action requirements of WAC 173-303-646.

### ***Tell us how your recommendation will improve the proposed rule amendments:***

Our recommended language will clarify the definition of "closure" (compare definition at 40 CFR 270.2) to correctly reflect its usage in other parts of WAC 173-303. It will also aid in the proper scoping and preparation of closure plans for the units/facilities required to prepare them by WAC 173-303-610(3).

Signature: Tony Miskho

Date: March 4, 2009

<sup>73</sup> Preamble, p. 14.

# **RULE-MAKING PROPOSAL COMMENT FORM**

## **Dangerous Waste Regulations, Chapter 173-303 WAC Filed on January 15, 2009**

**First and Last Name:** Tony Miskho

**Organization or Affiliation:** CH2M Hill Plateau Remediation Company

**Address:** PO Box 1600, MSIN H8-45

**City ST Zip:** Richland, WA 99352-1600

**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** WAC 173-303- **Page No.** 30 **Citation No.** -045(4)(d)  
045

***Please state your comment, question, or recommendation:***

Delete this addition.

***Explain your concern:***

We do not agree with Ecology's reasoning that SW-846 methods must currently be used in every instance where analysis is required, or that such requirements should be "retained". See detailed comments on Section 110(3).

***Tell us how your recommendation will improve the proposed rule amendments:***

Preserves flexibility and cost effectiveness in analysis of solid and dangerous waste

***Signature:*** Tony Miskho

***Date:*** March 4, 2009



# RULE-MAKING PROPOSAL COMMENT FORM

## Dangerous Waste Regulations, Chapter 173-303 WAC

Filed on January 15, 2009

First and Last Name: Tony Miskho

Organization or Affiliation: CH2M Hill Plateau Remediation Company

Address: PO Box 1600, MSIN H8-45

City ST Zip: Richland, WA 99352-1600

Indicate if your comment is on the federal or state requirements:  Federal  State

Section No. WAC 173-303-100 Page No. 66-67 Citation No. -100(2)

***Please state your comment, question, or recommendation:***

Delete language in WAC 173-303-100 incorporating the Hazardous Substances Data Bank (HSDB) and the Ecotoxicology Database (ECOTOX) by reference.

***Explain your concern:***

The Administrative Procedures Act at RCW 34.05.365 allows agencies to incorporate by reference "...all or any part of a code, standard, rule or regulation..." The HSDB and ECOTOX databases are online compilations of toxicology data published in periodicals. As a result, they appear unqualified for adoption by reference; they do not appear to qualify as codes, standards, rules, or regulations as those terms are used in RCW 34.05.

RCW 34.05.365 also requires the reference in agency rules to "fully identify the incorporated matter". Not only does the proposed rule not identify the incorporated matter, but the databases proposed for incorporation by reference do not identify it; they only refer the reader to individual periodicals containing the data.

Finally, RCW 34.05.365 authorizes incorporation by reference only when "the agency, organization, or association originally issuing that matter makes copies readily available to the public." The HSDB and ECOTOX toxicology result summaries are made readily available by the respective agency. However, the studies that are the source of the data are not always readily available, and not necessarily from the respective agency.

It is not clear why incorporation by reference is necessary in order to utilize database information for waste designation. Ecology mandates use of "data that are available to" the generator in preference to the referenced databases; none of that available data is incorporated by reference into the Dangerous Waste Regulations. We do acknowledge that Ecology has previously incorporated RTECS into the Dangerous Waste Regulations by reference and are not requesting that it be deleted at this time.

***Tell us how your recommendation will improve the proposed rule amendments:***

Brings proposed rule into compliance with the Administrative Procedures Act.

***Signature:*** Tony Miskho

***Date:*** March 4, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
**Dangerous Waste Regulations, Chapter 173-303 WAC**  
**Filed on January 15, 2009**

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**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** WAC 173-303-100      **Page No.** 66, 67      **Citation No.** -100(2)(b) and – 100(5)(b)(i)

***Please state your comment, question, or recommendation:***

The proposed requirement to use ECOTOX and HSDB as resources for determining constituent toxicity is inappropriate and should be deleted from WAC 173-303-100.

***Explain your concern:***

The proposed amendments would add ECOTOX and HSDB to the list of sources for determining toxic categories, apparently subject to the criterion that the most stringent toxic category from these sources would be used for designation purposes. Use of the ECOTOX and HSDB is inappropriate for many constituents. For example, the aquatic toxicity data in ECOTOX is often based on a generic identification of a metal, with no consideration of valence or solubility.

Consider the ECOTOX data for iron. The ECOTOX database shows an iron aquatic LC<sub>50</sub> of 0.56 ppm (96 hour test) due to toxicity to carp. (The database does not present any results for salmonids or fathead minnows, the preferred species under WAC 173-303-100(5)). Using this LC<sub>50</sub>, iron generically would be a toxic category B constituent, and designation as a WT02 dangerous waste would occur for any waste stream containing greater than 1,000 ppm of iron, including common items such as carbon steel. It is inappropriate for Ecology to base waste designation upon a database that would regulate common steel items as a dangerous waste. In addition, the statewide background concentration of iron in soil is 42,100 ppm (see Ecology's Natural Background Soil Metals Concentration in Washington State, Publication #94-115) – 42 times above the level resulting in designation based on generic application of the ECOTOX aquatic toxicity data. Obviously, with the high statewide background data and given the widespread presence of carp in various state waterways, other factors such as valence and solubility need to be considered in waste designation. The ECOTOX database makes no such distinction.

Generic use of the HSDB results in similar problems. For example, the HSDB shows an aquatic LC<sub>50</sub> of 0.015 mg/L for aluminum, making this a category A toxic material. Use of this data would not only result in EHW designation of aluminum pop cans, but would also result in soil at statewide background levels (37,200 mg/L aluminum) being designated as dangerous waste.

In some cases, the toxicity data in ECOTOX and HSDB could potentially be further evaluated by obtaining the source documents from which the database information is derived; however, these documents are not readily available to the general public, nor is the expertise necessary to evaluate and apply the associated technical information. As a consequence, generators using ECOTOX and the HSDB as mandatory references will be faced with designating various commonly encountered waste streams as dangerous wastes. This point seems to have been neglected in Ecology's *Preliminary Cost Benefit and Least Burdensome Analysis*, which concludes that availability of ECOTOX and HSDB represents a cost savings to generators as opposed to purchase of RTECS. Generators will not realize net cost savings if use of ECOTOX and HSDB results in them having to manage more of their waste as regulated dangerous waste, regardless of the savings associated with not having to purchase RTECS.

The proposed language regarding use of ECOTOX and HSDB as potential resources for toxicity information should be eliminated from WAC 173-303-100.

***Tell us how your recommendation will improve the proposed rule amendments:***

Eliminating the proposed requirement to use ECOTOX and HSDB toxicity data will avoid the unnecessary regulation of common, relatively non-hazardous materials as dangerous waste.

**Signature:** Tony Miskho

**Date:** March 4, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
**Dangerous Waste Regulations, Chapter 173-303 WAC**  
**Filed on January 15, 2009**

**First and Last Name:** Tony Miskho

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**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** WAC 173-303-100      **Page No.** 67-68      **Citation No.** -100(3) and (5)

***Please state your comment, question, or recommendation:***

Delete references to the Hazardous Substances Data Bank (HSDB) and the Ecotoxicology Database (ECOTOX).

***Explain your concern:***

Ecology's approach to require consultation of the ECOTOX and HSDB databases for waste designation results in the significant expansion of the reach of the Dangerous Waste Regulations to solid wastes that should not be regulated as dangerous. While the lack of aquatic toxicity data in RTECS is unfortunate, adopting ECOTOX and HSDB by reference and simply referencing the data in those compilations constitutes misuse of their data as defined by the databases themselves.

EPA's ECOTOX limitations statement includes the following: "You should consult the original scientific paper to ensure an understanding of the context of the data retrieved from the ECOTOX database."<sup>74</sup> HSDB assigns "review status tags" to indicate the level of quality review: data that has been peer reviewed; data that has been quality reviewed but not peer reviewed; and data that has not been reviewed. We believe that only data, which has been peer, reviewed should be adopted for use for waste designation. RTECS, which has been required for use since 1995, suffers from the same limitations regarding data quality as has been previously cited for ECOTOX and HSDB. In fact, the Centers for Disease Control (sponsoring agency for RTECS) notes "No attempt has been made to evaluate the studies cited in RTECS. The user has the responsibility of making such assessments."<sup>75</sup> We are not requesting removal of RTECS as a reference at this time, but we note that the use of these databases in this manner ignores the warnings provided by the databases themselves as to the quality of the information presented.

Despite these cautions, Ecology proposes to utilize these compilations as authoritative for all forms of the materials tested. Ecology proposes to adopt the databases for designation, not the underlying research information, which is essential in proper application of the test data. As a result, Ecology's proposed approach results in regulation of wastes which RCW 70.105 was never intended to reach, and are not currently regulated.

For example, ECOTOX reports the LC<sub>50</sub> of copper metal (CASRN 7440-50-8) as 39 µg/L for Coho salmon<sup>76</sup> and 20 µg/L for Chinook salmon<sup>77</sup>. As a result, metallic copper would be a Toxic A constituent and any waste that contains copper metal at a concentration over 0.01% (100 ppm) would designate as a dangerous waste. Any waste that contained over 1% copper metal would be extremely hazardous. Due to the prevalent use of copper in consumer goods, electrical wiring, construction materials, electronic devices, and even pennies, many such items will be dangerous or extremely hazardous waste when discarded under Ecology's proposed approach.

The regulated community has been able to rely, in the past, on the information on the form of the material tested in the original research. In the instant case, reference to the original research shows that only powdered copper was tested<sup>78</sup>. Generators have not had to consider other forms of copper as potentially regulated, as they have been able to rely on the underlying research results. Ecology's proposed approach references only the database information, not the underlying research, and thus expands the reach of the regulations significantly. It could force generators to conduct needless aquatic toxicity testing in order to overturn the impact of referencing these databases, as only

<sup>74</sup> U.S. EPA, ECOTOX database, "ECOTOX Limitations" website. Viewed 2/6/09.

<sup>75</sup> CDC, NIOSH, "RTECS: What Is RTECS?" webpage, viewed 2/6/09.

<sup>76</sup> Mudge et al., "Effect of Varying Environmental Conditions on the Toxicity of Copper to Salmon", ECOTOX reference 45201.

<sup>77</sup> Chapman, G.A., and J.K. McCrady, "Copper Toxicity: A Question of Form", ECOTOX reference 2062.

<sup>78</sup> *ibid.*

bioassay data can overturn a book designation per WAC 173-303-100(5)(d).

As a second example, HSDB provides a LC<sub>50</sub> for aluminum metal of 120 µg/L in rainbow trout<sup>79</sup> (CASRN 7429-90-5) and ECOTOX gives an LC<sub>50</sub> of 15 µg/L for brown trout<sup>80</sup>. As with copper metal, aluminum metal would be considered a Toxic A constituent and cause many currently unregulated wastes to become dangerous or extremely hazardous. The 15µg/L result was reported on a 42-day exposure to brown trout at the alevin stage<sup>81</sup>, data that is not comparable to the methods specified by Ecology to perform an aquatic toxicity study (96-hour exposure 30-90 days after swim-up, i.e. post-alevin stage).

We understand why Ecology would not wish to require generators to consult the original research referenced in ECOTOX and HSDB. It is not always possible to acquire a copy of the original research, as ECOTOX does not provide copies of copyrighted material and the original publishing journal or other source would have to be contacted. Some data in ECOTOX dates from 1972, and some is from non-English publications. It is impractical to consult individual studies for waste designation in any event. Most waste designators in the state of Washington would likely not be able to review these studies in order to analyze the information, resulting in improper designation of waste.

We are also concerned that the regulation of these metals, and perhaps others, as toxic constituents may result in the need to designate bulky, heterogenous wastes such as construction debris that have traditionally not been considered to require it. In the extreme, individual items discarded in such containers (such as an aluminum beverage can, which HSDB and ECOTOX would designate as WT01, extremely hazardous waste, at the point of generation) might cause an entire dumpster load to be regulated due to the mixture rule, WAC 173-303-150(1). It would then become incumbent on regulated generators of such material to inspect these bulk wastes to make sure they do not contain materials that would cause them to be regulated. Since we have several construction projects ongoing, the impact on those programs would be substantial. The change would also expand the universe of regulated waste generators; for instance, construction companies and the companies contracting them become co-generators of regulated waste through the presence of enough copper and/or aluminum in their construction waste. If the waste contains enough of these metals, or is regulated by the mixture rule, the waste would be extremely hazardous and prohibited from disposal in Washington State per WAC 173-303-140(4)(a).

Ecology, in the past, has indicated that they would help identify usable toxicity information through guidance, rather than through regulation, in order to avoid exclusion of data sources<sup>82</sup>. The proposed rule amendment reverses this policy without explanation.

In summary, the proposed amendments introduce more data of widely variable quality and verifiability with the force of state regulation to book-designate waste. Ecology cites strong, national peer review as its rationale for retention of SW-846 analytical methods in its preamble to this proposed rule amendment. Comparable data or method quality standards are not necessarily followed for the addition of ECOTOX and HSDB; rather, these are recommended because they are free and easily accessed via the Internet. The amendments introduce a considerable amount of added effort to the book designation process and will significantly expand the universe of regulated toxic DW. We strongly encourage Ecology to avoid this outcome by identifying only well-established, peer-reviewed data sources through guidance as the basis for book designation in the absence of waste-specific information available to the generator.

***Tell us how your recommendation will improve the proposed rule amendments:***

Limits use of inaccurate or inapplicable information in designation of state-only dangerous waste; precludes management of wastes not intended to be regulated pursuant to RCW 70.105 as dangerous or extremely hazardous.

***Signature: Tony Miskho***

***Date: March 4, 2009***

<sup>79</sup> Holtze, K.E., "Effects of pH and Ionic Strength on Aluminum Toxicity to Early Developmental Stages of Rainbow Trout (*Salmo gairdneri* Richardson), Ontario Ministry of the Environment, Rexdale, Ontario, Canada: 39 (1983). ECOTOX reference 14405.

<sup>80</sup> Weatherly et al., "The Survival of Early Life States of Brown Trout (*Salmo trutta* L.) in Relation to Aluminum Speciation in Upland Welsh Streams", in *Aquatic Toxicology* 17(3):213-230, 1990. ECOTOX reference 3472.

<sup>81</sup> *Ibid.*

<sup>82</sup> Ecology, Responsiveness Summary for 1995 DW Regulations Amendments, Publication 95-423, p. 44, response to Comment 132.

**RULE-MAKING PROPOSAL COMMENT FORM**  
**Dangerous Waste Regulations, Chapter 173-303 WAC**  
**Filed on January 15, 2009**

**First and Last Name:** Tony Miskho

**Organization or Affiliation:** CH2M Hill Plateau Remediation Company

**Address:** PO Box 1600, MSIN H8-45

**City ST Zip:** Richland, WA 99352-1600

**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** WAC 173-303-100      **Page No.** 67-68      **Citation No.** -100(2), (3) and (5)

***Please state your comment, question, or recommendation:***

Ecology's analysis of costs and benefits from this rulemaking overlooks significant new costs to the regulated community while overstating savings. Ecology's Small Business Economic Impact Statement contains the same oversight. A further analysis should be undertaken to determine whether the proposed rule properly evaluates cost/benefit and whether it may disproportionately impact small business by causing them to become large quantity hazardous waste generators.

***Explain your concern:***

Ecology's analysis of costs and benefits (Publication 09-04-006), page 6, values the adoption of this rule as a cost savings to Washington dangerous waste generators of \$140,000 per year. Ecology's Small Business Economic Impact Statement (Publication 09-04-005), pages 3 and 15, portrays the adoption of this rule as a cost savings to Washington dangerous waste generators. This value is overstated, as it presumes that generators would not need to subscribe to one of the RTECS information services if ECOTOX and HSDB were used instead. However, Ecology's proposed rule incorporates RTECS by reference along with ECOTOX and HSDB (subsection 2), and requires RTECS' use along with the other two databases to determine which has the highest toxicity for the same test endpoint (subsections 3 and 5). Any generator that did not consult RTECS, trusting ECOTOX and/or HSDB to report the applicable data in RTECS, would be undertaking a compliance risk. Most generators are unlikely to undertake this risk for the potential savings of roughly \$500 per year, as fines and penalties for misdesignation of waste are usually many times this amount.

In addition to overstating savings, the analysis of costs and benefits completely ignores the significant economic cost of regulating hundreds of new dangerous wastes resulting from widespread use of ECOTOX and HSDB as a regulatory requirement. For instance, ECOTOX gives the aquatic toxicity of copper metal (CASRN 7440-50-8) as 39 µg/L for Coho salmon<sup>83</sup> and 20 µg/L for Chinook salmon<sup>84</sup>. As a result, metallic copper would be a Toxic A constituent, and any waste that contains copper metal at a concentration over 0.01% (100 ppm) would designate as a dangerous waste.

A second example is aluminum metal. HSDB provides a LC<sub>50</sub> for elemental aluminum of 120 µg/L in rainbow trout<sup>85</sup> (CASRN 7429-90-5) and ECOTOX gives an LC<sub>50</sub> of 15 µg/L for brown trout<sup>86</sup>. As with copper metal, aluminum metal would be considered a Toxic A constituent and cause many currently unregulated wastes to become dangerous. In short, Ecology is significantly broadening the scope of the Dangerous Waste Regulations without determining the economic impact of the change.

***Tell us how your recommendation will improve the proposed rule amendments:***

Allow Ecology to make a proper determination of cost/benefit of the proposed regulation as required by 34.05 RCW; allow Ecology to make a proper determination of small business impact of the proposed regulation as required by 19.85 RCW.

**Signature:** Tony Miskho

**Date:** March 4, 2009

<sup>83</sup> Mudge et al., "Effect of Varying Environmental Conditions on the Toxicity of Copper to Salmon", ECOTOX reference 45201.

<sup>84</sup> Chapman, G.A., and J.K. McCrady, "Copper Toxicity: A Question of Form", ECOTOX reference 2062.

<sup>85</sup> Holtze, K.E., "Effects of pH and Ionic Strength on Aluminum Toxicity to Early Developmental Stages of Rainbow Trout (*Salmo gairdneri* Richardson)", Ontario Ministry of the Environment, Rexdale, Ontario, Canada: 39 (1983). ECOTOX reference 14405.

<sup>86</sup> Weatherly et al., "The Survival of Early Life Stages of Brown Trout (*Salmo trutta* L.) in Relation to Aluminum Speciation in Upland Welsh Streams", in *Aquatic Toxicology* 17(3):213-230, 1990. ECOTOX reference 3472.

# RULE-MAKING PROPOSAL COMMENT FORM

## Dangerous Waste Regulations, Chapter 173-303 WAC

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First and Last Name: Tony Miskho

Organization or Affiliation: CH2M Hill Plateau Remediation Company

Address: PO Box 1600, MSIN H8-45

City ST Zip: Richland, WA 99352-1600

Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. WAC 173-303-100 Page No. 71 Citation No. -104(5)

***Please state your comment, question, or recommendation:***

Please provide an alternative method for generator annual reporting for labpacks.

***Explain your concern:***

With the deletion of the WL01 and WL02 waste codes, we have experienced a significant increase in cost associated with preparing annual reports. While we understand the reasons for deleting the WL01 and WL02 waste codes from the regulations, we request that Ecology modify TurboWaste to allow reporting of combination packagings as a single waste unit rather than a unique container exhibiting every waste code represented in the package. Under current regulation and TurboWaste requirements, nearly every container within a labpack must be identified as a separate waste stream and have its own GM form since each labpack generally contains a different assortment of wastes and waste codes. There is little value to Ecology, the regulated community, or the public in the bulkier annual report submittals that have resulted from the deletion of these waste codes.

***Tell us how your recommendation will improve the proposed rule amendments:***

Streamlines annual reporting for labpacks without requiring the labpack waste codes to be restored to the regulations.

***Signature:*** Tony Miskho

***Date:*** March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

## Dangerous Waste Regulations, Chapter 173-303 WAC

Filed on January 15, 2009

First and Last Name: Tony Miskho

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Address: PO Box 1600, MSIN H8-45

City ST Zip: Richland, WA 99352-1600

Indicate if your comment is on the federal or state requirements:

Federal  
 State

Section No. WAC 173-303-100

Page No. 73

Citation No. -110(3)(a)

### ***Please state your comment, question, or recommendation:***

Replace the text of this section with the identity of the specific test procedures being incorporated. The specific test procedures from SW-846 that are incorporated should be the same list as that found in 40 CFR 260.11(c)(3).

### ***Explain your concern:***

This comment rises from two concerns.

Our first concern is that the Administrative Procedures Act at RCW 34.05.365 allows agencies to incorporate by reference "...all or any part of a code, standard, rule or regulation..." The SW-846 manual is a compilation of testing methods. As a result, it appears unqualified for adoption by reference; the manual as a whole does not appear to qualify as codes, standards, rules, or regulations as those terms are used in RCW 34.05.

RCW 34.05.365 also requires the reference in agency rules to "fully identify the incorporated matter". It is not clear whether Ecology intends to incorporate the entire manual, just the test procedures (as intimated by the preamble and other changes to the regulations), or some other subset of SW-846.

We are also concerned that by incorporating the entire SW-846 manual, Ecology is using this section to make mandatory not only those testing methods that were made nonmandatory by the federal Methods Innovation Rule<sup>87</sup>, but methods that were never previously mandatory. Table 2 in the preamble to the Methods Innovation Rule<sup>88</sup> enumerates which portions of the Federal rules were being amended to delete the mandatory use of SW-846. These deletions are relatively minor in scope and would impact very few facilities in Washington State, with the possible exception of the method for measuring air emissions from tanks and containers.

However, inclusion of all of SW-846 "by reference" appears to make mandatory methods that were never previously required for waste analysis. For example, EPA notes in the preamble of the Methods Innovation Rule<sup>89</sup> that the Toxicity Characteristic Leaching Procedure (SW-846 Method 1311), while required to prepare an extract for analysis, does not specify the method for analysis of the resulting extract. Instead, it allows use of "appropriate analytical methods" and has since 1992<sup>90</sup>. It is not clear why Ecology believes SW-846 testing methods are now the only way such extracts can be properly analyzed. In fact, EPA states the opposite in its preamble: "EPA also believes that method selection should be a project-specific decision and therefore cannot recommend or approve any methods – even SW-846 methods – as always being appropriate for any given application ... Relying on the fact that a method is contained in SW-846 does not guarantee that the method will always generate effective data under any situation. If the SW-846 method is not an appropriate method for its intended application, following it exactly could generate erroneous data and could fail to demonstrate compliance

<sup>87</sup> 70 FR 34537, 6/14/05.

<sup>88</sup> *ibid.* at 34546.

<sup>89</sup> *ibid.* at 34543.

<sup>90</sup> *ibid.* See also SW-846, Method 1311, Sections 7.2.14 and 7.3.15.

with the RCRA requirements.”<sup>91</sup> Further, “The Agency [i.e. EPA] strongly disagrees with commenters that SW-846 methods should be identified as always appropriate.”<sup>92</sup>

Therefore, while Ecology states that “Washington and other states have depended upon SW-846 to provide validated methods that can be used to meet the requirements of the regulations”<sup>93</sup>, the document’s author (EPA) disagrees that it fulfills that role and says it should not be used in that manner. Ecology states that it “cannot divert already over-extended resources to review methods outside of SW-846”<sup>94</sup>, yet it retains the option to petition for use of other methods and admits, “the generator remains legally liable for designation of its waste”<sup>95</sup>.

Ecology has not provided any data to demonstrate that use of SW-846 is universally appropriate or compliant. Ecology has also not demonstrated that EPA improperly made any SW-846 methods nonmandatory in any of the situations where Ecology proposes to make them mandatory. Ecology should not pursue blanket imposition of SW-846 without substantial justification.

***Tell us how your recommendation will improve the proposed rule amendments:***

Brings proposed rule into compliance with the Administrative Procedures Act; incorporates only the methods required for compliance into the Dangerous Waste Regulations.

***Signature: Tony Miskho***

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***Date: March 4, 2009***

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<sup>91</sup> Ibid.

<sup>92</sup> Ibid. at 34545.

<sup>93</sup> Ecology, “Proposed Amendments” [preamble], p. 7.

<sup>94</sup> Ibid.

<sup>95</sup> Ibid.



# RULE-MAKING PROPOSAL COMMENT FORM

## Dangerous Waste Regulations, Chapter 173-303 WAC

Filed on January 15, 2009

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**Address:** PO Box 1600, MSIN H8-45

**City ST Zip:** Richland, WA 99352-1600

**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** WAC 173-303- **Page No.** 74 **Citation No.** -110(3)(f)  
110

***Please state your comment, question, or recommendation:***

Delete this subsection.

***Explain your concern:***

As this subsection has been reworded, it now makes mandatory selecting one of the methods given in Chapter 2 of SW-846 for any waste. This is inconsistent with the remainder of Section 110, where other methods are specified for certain types of wastes or certain constituents. Further, as presently written, subsection (f) is redundant to subsection (a) of this section, as SW-846 is already incorporated by reference in its entirety via the changes to subsection (a). The original purpose of subsection (f) was to assure consistency with Federal rules by referencing 40 CFR 261 Appendix II and Appendix III. As EPA has removed and reserved both appendices, the references are no longer necessary and Ecology has determined not to be consistent with Federal rules in any event.

Note: refer to our comment on subsection (3)(a) for recommended wording of that subsection.

***Tell us how your recommendation will improve the proposed rule amendments:***

Simplifies the references provided in this section.

***Signature:*** Tony Miskho

***Date:*** March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

## Dangerous Waste Regulations, Chapter 173-303 WAC

Filed on January 15, 2009

First and Last Name: Tony Miskho

Organization or Affiliation: CH2M Hill Plateau Remediation Company

Address: PO Box 1600, MSIN H8-45

City ST Zip: Richland, WA 99352-1600

Indicate if your comment is on the federal or state requirements:

Federal  
 State

Section No. WAC 173-303-110

Page No. 75

Citation No. -110(5)

***Please state your comment, question, or recommendation:***

Revise this subsection to read: (5) Equivalent testing or analytical methods. Any person may petition for a regulatory amendment to add a testing or analytical method to this section by preparing and submitting a petition to the department in accordance with WAC 173-303-910(2).

***Explain your concern:***

The words "testing or analytical method" are added since Ecology's stated intent is to apply this process to testing methods, not to other subjects in this section (e.g. sampling methods). This change also restores consistency with -910(2).

Restore use of word "may" instead of "must". There is no reason to insist on use of the petition process in all cases. For instance, Ecology permit writers should have the flexibility to allow alternative methods to be used in the context of individual permitted facilities where appropriate. Ecology states that this is their intent<sup>96</sup>, but the wording of this section appears to preclude it. Further, discussion with some Ecology permit writers has indicated that they would not be able to authorize use of alternate methods in permits if this language is adopted. There are many reasons that alternative test methods should be considered for use, and we object to the requirement to use only the methods listed in section -110 in our comment on subsection -110(1). Further, the subsection -910(2) process results in an amendment to WAC 173-303. This process is expensive and time-consuming. Other processes should be considered in cases where an amendment to the WAC is unnecessary, e.g. one-time approvals.

***Tell us how your recommendation will improve the proposed rule amendments:***

Provides clarification and flexibility in the application of this subsection.

***Signature:*** Tony Miskho

***Date:*** March 4, 2009

<sup>96</sup> Preamble, p. 15.

**RULE-MAKING PROPOSAL COMMENT FORM**  
**Dangerous Waste Regulations, Chapter 173-303 WAC**  
**Filed on January 15, 2009**

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**Address:** PO Box 1600, MSIN H8-45

**City ST Zip:** Richland, WA 99352-1600

**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** WAC 173-303-110      **Page No.** 75      **Citation No.** -110(6)

***Please state your comment, question, or recommendation:***

Delete this subsection.

***Explain your concern:***

Reporting of analytical results on a dry weight basis is inappropriate for a number of reasons. First, it appears that if the test method is performed for waste designation purposes, a dry weight measurement will produce an analytical result that is not representative of the waste at the point of the generation when the waste contains water or moisture.

As a specific example of a parameter where a dry measurement is inappropriate, the amount of water in a sample is immaterial to the measurement of pH in soil (SW-846 Method 9045D), as water is added to the sample during analysis. Further, Method 9045D specifies that the sample must be less than 20% water. Ecology has not indicated the regulatory basis for adding a requirement for reporting all results on a dry weight basis, especially since solids and soils can vary in moisture content as a normal part of generation. No explanation of why compensation for variability in water content is necessary is offered. WAC 173-303 already proscribes improper dilution of waste to avoid regulation.

Ecology has not established the value of a "consistent procedure for all analytical results" since most analyses for designation purposes are never submitted to Ecology, and the generator retains the responsibility to designate properly their waste in any event<sup>97</sup>. If Ecology wishes to evaluate consistently analytical results for which certification of designation has been requested under the provisions of WAC 173-303-075, Ecology can add this requirement to that section without requiring the vast majority of designations not submitted to Ecology include this requirement. Soils and solid materials typically vary in water content as generated. This requirement would add the analysis of water content (Ecology estimate of less than \$25 per sample) to the analytical cost for any soil or solids sample.

Also note that Ecology already has the authority to require any generator to analyze its waste (including for moisture content) at WAC 173-303-070(4) for cause.

We also note with interest that Ecology's "Background and Rationale for the Update of Biological Testing Methods ..." issued at the same time as this proposed rule describes Ecology's reasoning for deleting the requirement to determine the moisture content of a sample being tested for toxicity pursuant to the Biological Testing Methods. It would appear that the same rationale described for deleting the moisture content determination requirement from the Biological Testing Methods would argue against the addition of this requirement in WAC 173-303-110(6).

Although Ecology has stated that it has always been their intent that results be reported this way, this requirement has not appeared in Ecology's Chemical Test Methods guidance in the past. It is also not mentioned anywhere in the revised Chemical Test Methods document provided with this proposed rule, even though the Preamble states that it does<sup>98</sup>.

***Tell us how your recommendation will improve the proposed rule amendments:***

Avoid imposition of unnecessary requirements to waste generators statewide.

***Signature:*** Tony Miskho

***Date:*** March 4, 2009

<sup>97</sup> WAC 173-303-070(1)(b); see also Preamble, p. 7.

<sup>98</sup> Preamble, p. 15.

# RULE-MAKING PROPOSAL COMMENT FORM

## Dangerous Waste Regulations, Chapter 173-303 WAC

Filed on January 15, 2009

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Address: PO Box 1600, MSIN H8-45

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Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. WAC 173-303-- Page No. 75 Citation No. -110(7)  
110

***Please state your comment, question, or recommendation:***

Because Ecology is no longer using 40 CFR 264 Appendix IX as a reference in the regulations, Ecology should explain in the responsiveness summary how they are going to maintain the groundwater monitoring list in Appendix 5 of the Chemical Testing Methods for Designating Dangerous Waste consistent with EPA's list in 40 CFR 264 Appendix IX.

***Explain your concern:***

With Ecology no longer referencing 40 CFR 264 Appendix IX in the regulations, a concern exists that the two lists of constituents can become different over time. If and when EPA modifies the list of constituents in 40 CFR 264 Appendix IX, Ecology should also then update the chemical testing methods appendix to be consistent. Ecology should make a commitment in the responsiveness summary to keep the two lists of constituents the same.

***Tell us how your recommendation will improve the proposed rule amendments:***

With Ecology making a commitment to keep the lists of constituents the same, Ecology will minimize the problems that can be created during enforcement activities and when EPA looks at the state's authorized program.

***Signature:*** Tony Miskho

***Date:*** March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

## Dangerous Waste Regulations, Chapter 173-303 WAC

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Organization or Affiliation: CH2M Hill Plateau Remediation Company

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Indicate if your comment is on the federal or state requirements:

Federal  
 State

Section No. WAC 173-303-140

Page No. 80

Citation No. -140(2)(a)

***Please state your comment, question, or recommendation:***

Delete the proposed added sentence at the end of this paragraph imposing WAC 173-303-110(3)(a) in lieu of 40 CFR 260.11.

***Explain your concern:***

We do not agree that imposition of the specified methods in WAC 173-303-110(3)(a) is appropriate in every case. Refer to our comments on WAC 173-303-110(3)(a).

***Tell us how your recommendation will improve the proposed rule amendments:***

Incorporates only the methods required for compliance into the Dangerous Waste Regulations

***Signature:*** Tony Miskho

***Date:*** March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

## Dangerous Waste Regulations, Chapter 173-303 WAC

Filed on January 15, 2009

First and Last Name: Tony Miskho

Organization or Affiliation: CH2M Hill Plateau Remediation Company

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Indicate if your comment is on the federal or state requirements:

Federal  
 State

Section No. WAC 173-303-  
200

Page No. 96

Citation No. -200(2)(a)

***Please state your comment, question, or recommendation:***

We commend Ecology for making this change to allow satellite accumulation to correlate more closely with Federal requirements for the same. We also suggest that, once incorporated, Ecology's guidance document on satellite accumulation be updated to reflect this change.

***Explain your concern:***

None.

***Tell us how your recommendation will improve the proposed rule amendments:***

Consistency with Federal guidance.

***Signature:*** Tony Miskho

***Date:*** March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

## Dangerous Waste Regulations, Chapter 173-303 WAC

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First and Last Name: Tony Miskho

Organization or Affiliation: CH2M Hill Plateau Remediation Company

Address: PO Box 1600, MSIN H8-45

City ST Zip: Richland, WA 99352-1600

Indicate if your comment is on the federal or state requirements:

Federal  
 State

Section No. WAC 173-303-300

Page No. 120

Citation No. -300(5)(f)

***Please state your comment, question, or recommendation:***

Delete proposed added sentence.

***Explain your concern:***

The added sentence requires use of the specified methods in WAC 173-303-110(3), as proposed, for all laboratory analyses used in connection with a waste analysis plan. We object to Ecology's approach for mandatory use of the methods specified in -110(3), unless those methods are the only one capable of measuring a particular property (e.g. toxicity characteristic leaching procedure). See our comments on -110(3)(a).

Further, the inclusion of this requirement in this section ties the hands of Ecology permit writers in developing appropriate test methods for permitted facilities. In its preamble, Ecology states, "other methods can be used in permits to support facility operations."<sup>99</sup> Inclusion of this sentence here overturns Ecology's stated intention, as permit writers will have no choice but to require -110(3) methods be used in waste analysis plans.

***Tell us how your recommendation will improve the proposed rule amendments:***

Preserve flexibility in permits; incorporates only the methods required for compliance into the Dangerous Waste Regulations.

***Signature:*** Tony Miskho

***Date:*** March 4, 2009

<sup>99</sup> Preamble, p. 15, reason for change to 110(1).

# RULE-MAKING PROPOSAL COMMENT FORM

## Dangerous Waste Regulations, Chapter 173-303 WAC

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Address: PO Box 1600, MSIN H8-45

City ST Zip: Richland, WA 99352-1600

Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. WAC 173-303-300 Page No. 120 Citation No. -300(5)(f)

***Please state your comment, question, or recommendation:***

Delete proposed added sentence.

***Explain your concern:***

The proposed addition of compliance with requirements under WAC 173-303-110(3)(a) creates a large additional burden on the regulated community. Note that many generators, including Hanford, meet their waste designation obligations through the use of knowledge of the waste. This is authorized by regulation (see WAC 173-303-070(3)(c)(ii)). This would force receiving TSD facilities that receive out of state waste to apply additional testing requirements when an out of state generator did not use SW-846 methods. This cost would then be passed back to generators by the receiving facilities, penalizing those facilities that develop knowledge of their wastes in order to avoid expensive testing.

The means of referencing the sections in existing -300(5)(f) could also subject all activity under closure, postclosure (references to unit-specific closure/postclosure requirements), and corrective action to SW-846 (references to -645 and -646 are included in "-630 through -670"). This is not appropriate as individual wastes and matrices at facilities that are closing or already closed may require different analytical techniques.

Also note that the requirements in -300(5)(f) are elements of data gathering pursuant to a waste analysis plan at a interim- or final-status facility<sup>100</sup>. The purpose of such data is not to designate the waste, but confirm the owner or operator's knowledge about a waste in order to manage it properly (see -300(1)). The requirement to have all data meet SW-846 analysis requirements is excessive. In many cases, convenient and readily available test kits or similar devices are available to meet the requirements of -300(1) without requiring each and every TSD facility in the state to have a fully equipped and functioning laboratory (or one nearby under contract) in order to conduct basic confirmatory waste analysis. Where testing must use -110(3) methods per Federal regulation [e.g. analysis of treated waste residues under 40 CFR 268.7(b)(1) or (2)], the requirement should come from the referenced section, not -300(5)(f).

***Tell us how your recommendation will improve the proposed rule amendments:***

Preserve flexibility in analysis requirements between generators and TSD facilities.

***Signature:*** Tony Miskho

***Date:*** March 4, 2009

<sup>100</sup> This requirement would also include generators treating their waste in tanks or containers to meet LDR requirements.



# RULE-MAKING PROPOSAL COMMENT FORM

## Dangerous Waste Regulations, Chapter 173-303 WAC

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Organization or Affiliation: CH2M Hill Plateau Remediation Company

Address: PO Box 1600, MSIN H8-45

City ST Zip: Richland, WA 99352-1600

Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. WAC 173-303-370 Page No. 124 Citation No. -370(2)(b)

***Please state your comment, question, or recommendation:***

Correct the reference as follows: ...“(as defined in subsection (5)(a) of this section)”...

***Explain your concern:***

Definition of manifest discrepancies has moved to subsection (5)(a).

***Tell us how your recommendation will improve the proposed rule amendments:***

Updates reference to manifest discrepancies as has been done in subsection (4)(b).

***Signature:*** Tony Miskho

***Date:*** March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

## Dangerous Waste Regulations, Chapter 173-303 WAC

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Indicate if your comment is on the federal or state requirements:

Federal  
 State

Section No. WAC 173-303-370

Page No. 125

Citation No. -370(4)(b)

***Please state your comment, question, or recommendation:***

Revise this to read: "Note any discrepancies (as defined in subsection (5)(a) of this section) in the manifest or shipping paper (if the manifest has not been received) on each copy of the manifest or shipping paper."

***Explain your concern:***

Should note the specific subsection that describes discrepancies; most of the rest of section (5) deals with how to deal with the discrepancies once discovered and is not relevant here. This change also makes the wording consistent with -370(2)(b) (see our comment at -370(2)(b)) and with 40 CFR 264.71(a)(2)(ii) and (b)(2)(ii), with which this wording is intended to be consistent.

***Tell us how your recommendation will improve the proposed rule amendments:***

Consistent wording and correct references to reflect new manifest requirements.

Signature: Tony Miskho

Date: March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

## Dangerous Waste Regulations, Chapter 173-303 WAC

Filed on January 15, 2009

First and Last Name: Tony Miskho

Organization or Affiliation: CH2M Hill Plateau Remediation Company

Address: PO Box 1600, MSIN H8-45

City ST Zip: Richland, WA 99352-1600

Indicate if your comment is on the federal or state requirements:

Federal  
 State

Section No. WAC 173-303-370

Page No. 128

Citation No. -370(6)(a)(ii)

***Please state your comment, question, or recommendation:***

Revise this to read: "...as defined in subsection (5)(a) of this section..."

***Explain your concern:***

Should note the specific subsection that describes discrepancies; most of the rest of section (5) deals with how to deal with the discrepancies once discovered and is not relevant here. This change also makes the wording consistent with -370(2)(b) and -370(4)(b) (see our comments at those subsections).

***Tell us how your recommendation will improve the proposed rule amendments:***

Consistent wording and correct references to reflect new manifest requirements.

***Signature:*** Tony Miskho

***Date:*** March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

## Dangerous Waste Regulations, Chapter 173-303 WAC

Filed on January 15, 2009

First and Last Name: Tony Miskho

Organization or Affiliation: CH2M Hill Plateau Remediation Company

Address: PO Box 1600, MSIN H8-45

City ST Zip: Richland, WA 99352-1600

Indicate if your comment is on the federal or state requirements:

Federal  
 State

Section No. WAC 173-303-380

Page No. 129

Citation No. -380(1)(c)

***Please state your comment, question, or recommendation:***

Delete proposed added sentence.

***Explain your concern:***

The added sentence requires use of the specified methods in WAC 173-303-110(3)(a), as proposed, for all laboratory analyses used in connection with a waste analysis plan. We object to Ecology's approach for mandatory use of the methods specified in -110(3), unless those methods are the only one capable of measuring a particular property (e.g. toxicity characteristic leaching procedure). See our comments on -110(3)(a). In addition, this sentence only allows SW-846 test methods, and not the other test methods incorporated in -110(3)(b)-(h).

Further, the inclusion of this requirement in this section ties the hands of Ecology permit writers in developing appropriate test methods for permitted facilities. In its preamble, Ecology states, "other methods can be used in permits to support facility operations."<sup>101</sup> Inclusion of this sentence here overturns Ecology's stated intention, as permit writers will have no choice but to require -110(3) methods be used in all monitoring, testing, and analytical data.

***Tell us how your recommendation will improve the proposed rule amendments:***

Preserve flexibility in permits; incorporates only the methods required for compliance into the Dangerous Waste Regulations.

***Signature:*** Tony Miskho

***Date:*** March 4, 2009

<sup>101</sup> Preamble, p. 15, reason for change to 110(1)

# RULE-MAKING PROPOSAL COMMENT FORM

## Dangerous Waste Regulations, Chapter 173-303 WAC

Filed on January 15, 2009

First and Last Name: Tony Miskho

Organization or Affiliation: CH2M Hill Plateau Remediation Company

Address: PO Box 1600, MSIN H8-45

City ST Zip: Richland, WA 99352-1600

Indicate if your comment is on the federal or state requirements:

Federal  
 State

Section No. WAC 173-303-380

Page No. 129

Citation No. -380(1)(f)

***Please state your comment, question, or recommendation:***

Delete proposed added sentence at end of this subsection.

***Explain your concern:***

The added sentence requires use of the specified methods in WAC 173-303-110(3)(a), as proposed, for all laboratory analyses used in connection with a waste analysis plan. We object to Ecology's approach for mandatory use of the methods specified in -110(3), unless those methods are the only one capable of measuring a particular property (e.g. toxicity characteristic leaching procedure). See our comments on -110(3)(a). In addition, this sentence only allows SW-846 test methods, and not the other test methods incorporated in -110(3)(b)-(h).

Further, the inclusion of this requirement in this section ties the hands of Ecology permit writers in developing appropriate test methods for permitted facilities. In its preamble, Ecology states, "other methods can be used in permits to support facility operations."<sup>102</sup> Inclusion of this sentence here overturns Ecology's stated intention, as this requirement appears to mandate that permit writers require -110(3) methods be used in all monitoring, testing, and analytical data.

***Tell us how your recommendation will improve the proposed rule amendments:***

Preserve flexibility in permits; incorporates only the methods required for compliance into the Dangerous Waste Regulations.

***Signature:*** Tony Miskho

***Date:*** March 4, 2009

<sup>102</sup> Preamble, p. 15, reason for change to 110(1)

# RULE-MAKING PROPOSAL COMMENT FORM

## Dangerous Waste Regulations, Chapter 173-303 WAC

Filed on January 15, 2009

First and Last Name: Tony Miskho

Organization or Affiliation: CH2M Hill Plateau Remediation Company

Address: PO Box 1600, MSIN H8-45

City ST Zip: Richland, WA 99352-1600

Indicate if your comment is on the federal or state requirements:

Federal  
 State

Section No. WAC 173-303-380

Page No. 131

Citation No. -380(2)(c), Table 1

***Please state your comment, question, or recommendation:***

Delete repeat references to pounds, short tons, and kilograms. Clarify whether "tons" refers to long tons (2200 lbs), metric tons (1000 Kg), or some other type of ton.

***Explain your concern:***

The repeated appearance of pounds, short tons, and kilograms at the bottom of Table 1 should be avoided. Either delete them at the bottom of the table or delete the previous instances in the table. As to the reference to "tons (M)", define what type of ton is intended. The Federal rule does not indicate whether this is a metric ton (as implied by the use of the code "M") or some other type of ton.

***Tell us how your recommendation will improve the proposed rule amendments:***

Simplifies and clarifies the use of Table 1.

Signature: Tony Miskho

Date: March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

## Dangerous Waste Regulations, Chapter 173-303 WAC

Filed on January 15, 2009

First and Last Name: Tony Miskho

Organization or Affiliation: CH2M Hill Plateau Remediation Company

Address: PO Box 1600, MSIN H8-45

City ST Zip: Richland, WA 99352-1600

Indicate if your comment is on the federal or state requirements:

Federal  
 State

Section No. WAC 173-303-400

Page No. 140

Citation No. -400(3)(c)(iii)

***Please state your comment, question, or recommendation:***

Delete proposed added sentence and revise section numbering accordingly.

***Explain your concern:***

The added sentence requires use of the specified methods in WAC 173-303-110(3)(a), as proposed, for all laboratory analyses used in connection with a waste analysis plan. We object to Ecology's approach for mandatory use of the methods specified in -110(3), unless those methods are the only one capable of measuring a particular property (e.g. toxicity characteristic leaching procedure). See our comments on -110(3)(a). In addition, this sentence only allows SW-846 test methods, and not the other test methods incorporated in -110(3)(b)-(h).

***Tell us how your recommendation will improve the proposed rule amendments:***

Incorporates only the methods required for compliance into the Dangerous Waste Regulations

***Signature:*** Tony Miskho

***Date:*** March 4, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
**Dangerous Waste Regulations, Chapter 173-303 WAC**  
**Filed on January 15, 2009**

**First and Last Name:** Tony Miskho

**Organization or Affiliation:** CH2M Hill Plateau Remediation Company

**Address:** PO Box 1600, MSIN H8-45

**City ST Zip:** Richland, WA 99352-1600

**Indicate if your comment is on the federal or state requirements:**  **Federal**  
 **State**

**Section No.** WAC 173-303-400      **Page No.** 144      **Citation No.** -400(3)(c)(xiii)

***Please state your comment, question, or recommendation:***

Change the text of the citation to read: "An additional sentence reads: "An owner/operator must not landfill an organic/carbonaceous waste or an EHW, as defined by WAC 173-303-080 through 173-303-100, except at the EHW facility at Hanford under WAC 173-303-700, or as allowed under WAC 173-303-140(5), (6), or (7), or as allowed under RCW 70.105.050(2)."

***Explain your concern:***

The citation does not reflect current requirements for land disposal at a landfill. As proposed, it reads:

(xiii) "Subpart N - landfills."

(A) An additional sentence reads: "An owner/operator must not landfill an organic/carbonaceous waste or an EHW, as defined by WAC 173-303-080 through 173-303-100, except at the EHW facility at Hanford."

There is an inconsistency between the text in WAC 173-303-400(3)(c)(xiii) with the text in WAC 173-303-140(5), (6), and (7) and RCW 70.105.050(2). This sentence, fails to reflect the actual regulatory and statutory provisions that do, in fact, allow for land disposal of an organic/carbonaceous waste and EHW under certain circumstances. For example, WAC 173-303-140(4)(a) allows for land disposal of EHW in accordance with subsections (5), (6), and (7) of the regulation. RCW 70.105.050(2) allows for disposal of radioactive EHW provided certain conditions are met. The sentence should be revised to reflect the fact that EHW can, in fact, be land disposed under certain conditions.

RCW 70.105.050(2) states: "Extremely hazardous wastes that contain radioactive components may be disposed at a radioactive waste disposal site that is (a) owned by the United States department of energy or a licensee of the nuclear regulatory commission and (b) permitted by the department and operated in compliance with the provisions of this chapter. However, prior to disposal, or as a part of disposal, all reasonable methods of treatment, detoxification, neutralization, or other waste management methodologies designed to mitigate hazards associated with these wastes shall be employed, as required by applicable federal and state laws and regulations."

This language from the RCW clearly allows for mixed waste EHW disposal at Hanford when other applicable laws and regulations are followed. In addition, adding reference to WAC 173-303-700 makes it clear what is meant in the regulations by the EHW facility at Hanford, even though this facility was never built. Lastly, a similar sentence exists in the chemical testing methods publication in Section 2.B.1, 4th paragraph (proposed at page 9 in that document). Ecology should ensure that the regulations and the chemical testing methods document are consistent on this matter.

***Tell us how your recommendation will improve the proposed rule amendments:***

The change will bring the regulations in line with legal disposal requirements and state law.

***Signature:*** Tony Miskho

***Date:*** March 4, 2009



# RULE-MAKING PROPOSAL COMMENT FORM

## Dangerous Waste Regulations, Chapter 173-303 WAC

Filed on January 15, 2009

First and Last Name: Tony Miskho

Organization or Affiliation: CH2M Hill Plateau Remediation Company

Address: PO Box 1600, MSIN H8-45

City ST Zip: Richland, WA 99352-1600

Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No.	<u>WAC 173-303-400</u>	Page No.	<u>140-144</u>	Citation No.	<u>Various under -400(3)(c)</u>
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***Please state your comment, question, or recommendation:***

Ecology should have to prepare a new/revised cost benefit and least burdensome analysis for EPA's Burden Reduction Rule (71 FR 16862, April 4, 2006) before finalizing the decision not to adopt many of its provisions.

***Explain your concern:***

Ecology has not provided a summary in the Preliminary Cost Benefit and Least Burdensome Analyses document on EPA's Burden Reduction Rule (71 FR 16862, April 4, 2006) that demonstrates Ecology has complied with the state law requirements for the Administrative Procedures Act in RCW 34.05.328(2). RCW 34.05.328(2) states:

"(2) In making its determinations pursuant to subsection (1)(b) through (h) of this section, the agency shall place in the rule-making file documentation of sufficient quantity and quality so as to persuade a reasonable person that the determinations are justified."

A review of the Preliminary Cost Benefit and Least Burdensome Analyses shows that Ecology is only incorporating some of EPA's burden reduction rule (page 2 under Purpose). However, Page 4 also states: "There will be qualitative savings from simplifying requirements." Ecology then follows on page 9 of the qualitative savings section to only discuss the aspect they are proposing to adopt, on groundwater monitoring. There is no discussion on the other many aspects of EPA's Burden Reduction Rule which Ecology rejects. Finally on page 12 of the Preliminary Cost Benefit and Least Burdensome Analyses, Ecology states:

"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."

Another alternative would have been to adopt the burden reduction rule in its entirety, but apparently Ecology failed to even consider that alternative. This statement demonstrates that Ecology did not provide an analysis of each aspect of the Burden Reduction Rule nor did it articulate any rational basis for its claim that the proposed Ecology rule is the least burdensome alternative for those required to comply with it [RCW 34.05.328(1)(e)]. Without the complete analysis, state law requirements have not been met with this rulemaking. The Ecology action is not in accordance with law and lacks a rational basis.

***Tell us how your recommendation will improve the proposed rule amendments:***

Performing a new/revised Preliminary Cost Benefit and Least Burdensome Analyses for each aspect of the Burden Reduction Rule will then comply with state law requirements.

***Signature:*** Tony Miskho

***Date:*** March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

## Dangerous Waste Regulations, Chapter 173-303 WAC

Filed on January 15, 2009

First and Last Name: Tony Miskho

Organization or Affiliation: CH2M Hill Plateau Remediation Company

Address: PO Box 1600, MSIN H8-45

City ST Zip: Richland, WA 99352-1600

Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No.	<u>WAC 173-303-400</u>	Page No.	<u>140-144</u>	Citation No.	<u>Various under - 400(3)(c)</u>
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### ***Please state your comment, question, or recommendation:***

Ecology should not be able to claim a cost benefit and least burdensome analysis for EPA's Burden Reduction Rule (71 FR 16862, April 4, 2006) is "not applicable" for a federal rule under RCW 34.05.328.

### ***Explain your concern:***

When EPA publishes a final rule that benefits both the regulators and the regulated community, [i.e., Burden Reduction Rule (71 FR 16862, April 4, 2006)], a State must have an articulated rational basis to explain its failure to adopt such a broadly beneficial regulation. Lacking such a rational basis, the State action appears to be arbitrary. The EPA rule does not alter the strictness of environmental standards, it makes their application more reasonable. The EPA has stated in the federal register on page 16899, "this rule will provide significant benefits to EPA, states, and the regulated community, without compromising human health or the environmental protection." RCW 34.05.328 then provides the foundation for performing the analysis to arrive at the appropriate rule in Washington State. The lack of the legally applicable analysis renders Ecology's rejection of EPA's appear capricious and not in accordance with applicable law.

Ecology then states on page 15 of the Preliminary Cost Benefit and Least Burdensome Analyses "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." In addition, on pages 20-22 of the Preliminary Cost Benefit and Least Burdensome Analyses, the table states "NA" [analysis not required] and "N" [necessary to retain existing rule]. This statement and these classifiers appear inappropriate for the burden reduction rule.

In fact, RCW 34.05.328 does not provide a legal or rational basis for Ecology's assertion that the cost benefit and least burdensome analysis requirement does not apply to adoption or rejection of this EPA rule. None of the seven reasons cited in RCW 34.05.328(5)(b) apply to this circumstance. Furthermore, RCW 19.85 only exempts Ecology from performing a small business economic impact statement in certain circumstances.

After reading EPA's final rule, it appears to this commenter that a proper Preliminary Cost Benefit and Least Burdensome Analysis, performed as required by Washington law, would have concluded Ecology should adopt each of EPA's burden reduction initiatives.

### ***Tell us how your recommendation will improve the proposed rule amendments:***

Performing a new/revised Preliminary Cost Benefit and Least Burdensome Analyses for each aspect of the Burden Reduction Rule will then comply with state law requirements.

***Signature:*** Tony Miskho

***Date:*** March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

## Dangerous Waste Regulations, Chapter 173-303 WAC

Filed on January 15, 2009

First and Last Name: Tony Miskho

Organization or Affiliation: CH2M Hill Plateau Remediation Company

Address: PO Box 1600, MSIN H8-45

City ST Zip: Richland, WA 99352-1600

Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. WAC 173-303-515 Page No. 153 Citation No. -515(3) and (4)

***Please state your comment, question, or recommendation:***

Delete proposed added sentence in each of these subsections.

***Explain your concern:***

The added sentence requires use of the specified methods in WAC 173-303-110(3), as proposed, for all laboratory analyses used in analyzing used oil. We object to Ecology's approach for mandatory use of the methods specified in -110(3), unless those methods are the only one capable of measuring a particular property (e.g. toxicity characteristic leaching procedure). See our comments on -110(3)(a).

***Tell us how your recommendation will improve the proposed rule amendments:***

Incorporates only the methods required for compliance into the Dangerous Waste Regulations.

***Signature:*** Tony Miskho

***Date:*** March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

## Dangerous Waste Regulations, Chapter 173-303 WAC

Filed on January 15, 2009

First and Last Name: Tony Miskho

Organization or Affiliation: CH2M Hill Plateau Remediation Company

Address: PO Box 1600, MSIN H8-45

City ST Zip: Richland, WA 99352-1600

Indicate if your comment is on the federal or state requirements:

Federal  
 State

Section No. WAC 173-303-515 Page No. 153 Citation No. -515(3) and (4)

***Please state your comment, question, or recommendation:***

Delete proposed added sentence in each of these subsections.

***Explain your concern:***

The proposed amendment makes the use of SW-846 analytical methods mandatory for all generators of used oil that are using the rebuttable presumption and levels used oil burned for energy recovery since this is the only provision where analytical methods are used in the referenced subsections of -515. This is confusing to the regulated community in the following ways:

The generator is required to determine if used oil is mixed with a dangerous waste. In many relevant cases, it is not possible to determine if the used oil has been mixed with a dangerous waste simply by testing the waste; this must be determined through process knowledge. For example, the presence of chromium in excess of designation levels would not necessarily indicate mixing; the chromium may have resulted from use of the oil. This is the responsibility of the generator to determine.

A generator would perform designation on oily waste, i.e. used oil that has been mixed with something else, not on used oil (as defined). See, e.g., Ecology letter of 6/25/97 to Thomas Williams.

In order to demonstrate compliance with the rebuttable presumption regarding halogen levels, Ecology has allowed generators to utilize the Chlor-D-Tect kit for measurement. ("Used Oil Facts", cited above.) While it is an EPA-approved method, it is not listed in SW-846. Hence Ecology is removing this convenient and adequately accurate method for demonstrating compliance prior to burning used oil as fuel.

In addition, Hanford currently uses an EPA 600 series method, method 200.8 for analysis of mercury in used oil. The laboratory recommends use of this method. Used oil analysis should not be limited to SW-846 methods. Ecology has allowed 600 series methods in the Chemical Testing Methods publication on page 15, Section 3.1. Ecology should allow similar flexibility in WAC 173-303.

***Tell us how your recommendation will improve the proposed rule amendments:***

Providing flexibility of methods improves selection of methods appropriate for the matrix, consistent with EPA guidance (70 FR 34545, June 14, 2005) which states: "A major problem with the prescriptive-or mandated methods approach is that it can lead to data of poor quality which can result in an incorrect assessment of compliance."

***Signature:*** Tony Miskho

***Date:*** March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

## Dangerous Waste Regulations, Chapter 173-303 WAC

Filed on January 15, 2009

First and Last Name: Tony Miskho

Organization or Affiliation: CH2M Hill Plateau Remediation Company

Address: PO Box 1600, MSIN H8-45

City ST Zip: Richland, WA 99352-1600

Indicate if your comment is on the federal or state requirements:

Federal  
 State

Section No. WAC 173-303-610

Page No. 190 and 194

Citation No. -610(6) and (11)

***Please state your comment, question, or recommendation:***

Delete the requirement to use an independent qualified registered professional engineer and replace it with qualified professional engineer.

***Explain your concern:***

Ecology has not adopted Federal rule changes from the burden reduction final rule (Federal Register April 4, 2006) which allow qualified Professional Engineers (PEs) employed by the same company to certify several regulatory-required reports (e.g. certification of closure and post closure). Ecology contends that to do so would "lessen the current level of human and environmental protection that reduce access to available information or that risk a conflict of interest". We do not believe the use of licensed, in-house PEs has the potential to lessen the level of protection, and in some cases may actually increase the level of protection. We agree with EPA's evaluation of the use of in-house PEs (71 FR 16861, 4/6/06, at p. 16869):

"We believe that a professional engineer, regardless of whether he/she is independent is able to give fair and technical review because of the programs established by the state licensing boards. It is not clear to us that an in-house engineer faces a greater economic temptation than an independent engineer seeking to cultivate an ongoing relationship with a client. This is a central mission of state licensing boards. If certifications are provided when the facts do not warrant certification, the professional engineer is subject to penalties, including the loss of license and the possibility of fines. Professional engineers employed by a facility are more familiar with its own particular situation and are in a position to provide more on-site review and oversight of the activity being certified."

Use of independent PEs for this purpose often results in more time and cost to the regulated community. For instance, independent PEs must first be oriented to the facility as well as the specific item(s) they are expected to certify, and they must provide on-site oversight that may be redundant to facility PEs providing oversight of the same activity (e.g. construction).

***Tell us how your recommendation will improve the proposed rule amendments:***

This recommendation will improve the rule just as EPA did in their final rule.

***Signature:*** Tony Miskho

***Date:*** March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

## Dangerous Waste Regulations, Chapter 173-303 WAC

Filed on January 15, 2009

First and Last Name: Tony Miskho

Organization or Affiliation: CH2M Hill Plateau Remediation Company

Address: PO Box 1600, MSIN H8-45

City ST Zip: Richland, WA 99352-1600

Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. WAC 173-303-640 Page No. 214 Citation No. -640(4)(h)(i)(ii)

***Please state your comment, question, or recommendation:***

Delete the requirement to use an independent qualified registered professional engineer and replace it with just a qualified professional engineer.

***Explain your concern:***

Ecology has not adopted Federal rule changes from the burden reduction final rule (Federal Register April 4, 2006) which allow qualified Professional Engineers (PEs) employed by the same company to certify several regulatory-required reports (e.g. schedule and procedure for tank assessment). Ecology contends that to do so would lessen the current level of human and environmental protection, reduce access to available information, or risk a conflict of interest. We do not believe the use of licensed, in-house PEs has the potential to lessen the level of protection, and in some cases may actually increase the level of protection. We agree with EPA's evaluation of the use of in-house PEs (71 FR 16861, 4/6/06, at p. 16869):

We believe that a professional engineer, regardless of whether he/she is independent is able to give fair and technical review because of the programs established by the state licensing boards. It is not clear to us that an in-house engineer faces a greater economic temptation than an independent engineer seeking to cultivate an ongoing relationship with a client. This is a central mission of state licensing boards. If certifications are provided when the facts do not warrant certification, the professional engineer is subject to penalties, including the loss of license and the possibility of fines. Professional engineers employed by a facility are more familiar with its own particular situation and are in a position to provide more on-site review and oversight of the activity being certified.

Use of independent PEs for this purpose often results in more time and cost to the regulated community. For instance, independent PEs must first be oriented to the facility as well as the specific item(s) they are expected to certify, and they must provide on-site oversight that may be redundant to facility PEs providing oversight of the same activity (e.g. construction).

***Tell us how your recommendation will improve the proposed rule amendments:***

This recommendation will improve the rule just as EPA did in their final rule.

***Signature:*** Tony Miskho

***Date:*** March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

## Dangerous Waste Regulations, Chapter 173-303 WAC

Filed on January 15, 2009

First and Last Name: Tony Miskho

Organization or Affiliation: CH2M Hill Plateau Remediation Company

Address: PO Box 1600, MSIN H8-45

City ST Zip: Richland, WA 99352-1600

Indicate if your comment is on the federal or state requirements:

Federal  
 State

Section No. WAC 173-303-640

Page No. 215

Citation No. -640(6)

***Please state your comment, question, or recommendation:***

Ecology needs to adopt the burden reduction rule provision to allow weekly inspections instead of daily inspections by adding the words from 40 CFR 264.195(c) and (d) into -640(6).

***Explain your concern:***

Ecology is proposing not to adopt a burden reduction initiative from EPA shifting the visual inspection of tank systems from daily to weekly. Ecology's rationale for not adopting this rule, as given in the Draft Rule Summary, is that reduced inspections could lessen the current level of human or environmental protection, reduce access to available information, or risk a conflict of interest. However, as required under the EPA regulations, a tank system owner or operator must have automated leak detection systems that promptly notify personnel of leaks (or an equivalent workplace practice) in order to qualify for the reduced inspection frequency. As a result, there is no significant potential for reduced protection inherent in the adoption of this rule. Also note that the requirement to inspect data gathered from the monitoring of leak detection equipment remains unchanged, so that a failure of the leak detection equipment is still monitored daily.

For daily inspections to be necessary when a leak would be promptly detected in any event, one must presume that tanks are either subject to instantaneous failure, or that structural damage to a tank such as corrosion can occur so rapidly that daily inspections are needed. If a tank is subject to instantaneous failure, even daily inspections are unlikely to prevent such failures. External corrosion of a tank is unlikely to occur in such a rapid fashion that the integrity will be compromised within a week, unless incompatible materials have been introduced into the tank (or perhaps if the tank has been sabotaged). A well-designed and managed tank system should not be subject to failure from within due to incompatible wastes, and WAC 173-303-640(5)(a) already proscribes the introduction of such materials into any tank system.

At present, Ecology is planning to retain daily inspections as a state-only requirement. We recommend that the requirement be adjusted to weekly frequency, as it has been in the Federal regulations.

***Tell us how your recommendation will improve the proposed rule amendments:***

The allowance of weekly inspection will save the regulated community money on inspection costs while maintaining protection of human health and the environment.

***Signature:*** Tony Miskho

***Date:*** March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

## Dangerous Waste Regulations, Chapter 173-303 WAC

Filed on January 15, 2009

First and Last Name: Tony Miskho

Organization or Affiliation: CH2M Hill Plateau Remediation Company

Address: PO Box 1600, MSIN H8-45

City ST Zip: Richland, WA 99352-1600

Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. WAC 173-303-645 Page No. 10-11 Citation No. -645(9)(d) and (g)

***Please state your comment, question, or recommendation:***

We support Ecology's inclusion of the Burden Reduction Rule provision for groundwater monitoring.

***Explain your concern:***

There is no concern with this comment.

***Tell us how your recommendation will improve the proposed rule amendments:***

Finalizing the rule as proposed will provide the stated benefits to groundwater monitoring programs.

***Signature:*** Tony Miskho

***Date:*** March 4, 2009



# RULE-MAKING PROPOSAL COMMENT FORM

## Dangerous Waste Regulations, Chapter 173-303 WAC

Filed on January 15, 2009

First and Last Name: Tony Miskho

Organization or Affiliation: CH2M Hill Plateau Remediation Company

Address: PO Box 1600, MSIN H8-45

City ST Zip: Richland, WA 99352-1600

Indicate if your comment is on the federal or state requirements:

Federal  
 State

Section No. WAC 173-303-  
695

Page No. 77

Citation No. -695

***Please state your comment, question, or recommendation:***

Delete the sentence added to use a qualified registered professional engineer.

***Explain your concern:***

Ecology has not adopted Federal rule changes from the burden reduction final rule (Federal Register April 4, 2006) which allow qualified Professional Engineers (PEs) employed by the same company to certify several regulatory-required reports (e.g. containment building design). Ecology contends that to do so would lessen the current level of human and environmental protection, reduce access to available information, or risk a conflict of interest. We do not believe the use of licensed, in-house PEs has the potential to lessen the level of protection, and in some cases may actually increase the level of protection. We agree with EPA's evaluation of the use of in-house PEs (71 FR 16861, 4/6/06, at p. 16869):

We believe that a professional engineer, regardless of whether he/she is independent is able to give fair and technical review because of the programs established by the state licensing boards. It is not clear to us that an in-house engineer faces a greater economic temptation than an independent engineer seeking to cultivate an ongoing relationship with a client. This is a central mission of state licensing boards. If certifications are provided when the facts do not warrant certification, the professional engineer is subject to penalties, including the loss of license and the possibility of fines. Professional engineers employed by a facility are more familiar with its own particular situation and are in a position to provide more on-site review and oversight of the activity being certified.

Use of independent PEs for this purpose often results in more time and cost to the regulated community. For instance, independent PEs must first be oriented to the facility as well as the specific item(s) they are expected to certify, and they must provide on-site oversight that may be redundant to facility PEs providing oversight of the same activity (e.g. construction).

Note also that the reference to 40 CFR 264.1101(c)(4) is incorrect. The correct reference is 40 CFR 264.1101(c)(2).

***Tell us how your recommendation will improve the proposed rule amendments:***

This recommendation will improve the rule just as EPA did in their final rule.

***Signature:*** Tony Miskho

***Date:*** March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

## Dangerous Waste Regulations, Chapter 173-303 WAC

Filed on January 15, 2009

First and Last Name: Tony Miskho

Organization or Affiliation: CH2M Hill Plateau Remediation Company

Address: PO Box 1600, MSIN H8-45

City ST Zip: Richland, WA 99352-1600

Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. WAC 173-303-690 Page No. 74 Citation No. -690(3)

***Please state your comment, question, or recommendation:***

Delete this proposed addition.

***Explain your concern:***

The added sentence requires use of the specified methods in WAC 173-303-110(3)(a), as proposed, for all laboratory analyses used to determine whether a waste is subject to Subpart AA. We object to Ecology's approach for mandatory use of the methods specified in -110(3), unless those methods are the only one capable of measuring a particular property (e.g. toxicity characteristic leaching procedure). See our comments on -110(3)(a). In addition, this sentence only allows SW-846 test methods [as referenced in subsection (3)(a)], and not the other test methods incorporated in -110(3)(b)-(h). Some of these test methods are incorporated at -110(3) for the express purpose of meeting the requirements of 40 CFR 264 Subpart AA, incorporated by reference; see -110(3)(g)(i) through (viii). All of these requirements have been preserved in 40 CFR 260.11; hence, if Ecology intends to preserve the methods of compliance with the requirements incorporated by reference, this addition is unnecessary.

***Tell us how your recommendation will improve the proposed rule amendments:***

Incorporates only the methods required for compliance into the Dangerous Waste Regulations.

***Signature:*** Tony Miskho

***Date:*** March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

## Dangerous Waste Regulations, Chapter 173-303 WAC

Filed on January 15, 2009

First and Last Name: Tony Miskho

Organization or Affiliation: CH2M Hill Plateau Remediation Company

Address: PO Box 1600, MSIN H8-45

City ST Zip: Richland, WA 99352-1600

Indicate if your comment is on the federal or state requirements:

Federal  
 State

Section No. WAC 173-303-  
691

Page No. 75

Citation No. -691(3)

***Please state your comment, question, or recommendation:***

Delete this proposed addition.

***Explain your concern:***

The added sentence requires use of the specified methods in WAC 173-303-110(3)(a), as proposed, for all laboratory analyses used in connection with determining whether a waste is subject to Subpart BB. We object to Ecology's approach for mandatory use of the methods specified in -110(3), unless those methods are the only one capable of measuring a particular property (e.g. toxicity characteristic leaching procedure). See our comments on -110(3)(a). In addition, this sentence only allows SW-846 test methods, and not the other test methods incorporated in -110(3)(b)-(h). Some of these test methods are incorporated at -110(3) for the express purpose of meeting the requirements of 40 CFR 264 Subpart BB, incorporated by reference; see -110(3)(g)(i) through (viii). All of these requirements have been preserved in 40 CFR 260.11; hence, if Ecology intends to preserve the methods of compliance with the requirements incorporated by reference, this addition is unnecessary.

***Tell us how your recommendation will improve the proposed rule amendments:***

Incorporates only the methods required for compliance into the Dangerous Waste Regulations.

***Signature:*** Tony Miskho

***Date:*** March 4, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

Filed on January 15, 2009

First and Last Name: Harold Tilden

Organization or Affiliation: Pacific Northwest National Laboratory

Address: P.O. Box 999, Mail Stop K3-75

City ST Zip: Richland, WA 99352-0999

Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. 040 Page No. 8 Citation No. Definition of "Closure"

Please state your comment, question, or recommendation:

Revise this definition to read: "Closure" means the requirements applied by this chapter to certain generators and transporters, and to recycling, used oil, and TSD facilities, to ensure that they are secured in an acceptable manner (see also "post-closure").

Explain your concern:

The proposed definition is very broad and results in the application of clean closure requirements to any dangerous waste management unit or recycling unit. The use of the word "and" between the two bullets proposed makes both mandatory in all cases. This conflicts with provisions in WAC 173-303 allowing some types of units to close without "cleaning up or decontaminating the unit and any areas affected by releases from the unit" under certain circumstances. See, for instance, WAC 173-303-640(8)(b), -660(9)(b), and -665(6). Ecology's proposed wording is also inconsistent with the applicability of closure and post-closure requirements given in WAC 173-303-610(1).

We note that Ecology intended this change to "reflect closure guidance"<sup>103</sup>, presumably Ecology Publication 94-111, revised May 2005. This publication is entitled "Guidance for Clean Closure of Dangerous Waste Units and Facilities". Hence broadening this definition is not appropriate for the types of units allowed to undergo landfill closure.

Further, "closure" is not "the process of taking a dangerous waste management unit or a recycling unit out of service ..." as proposed (and as stated in Publication 94-111, Section 1.0.) A unit must cease accepting waste (essentially, be removed from service) in order to begin closure; see WAC 173-303-610(3) and (4). The only "service" that remains during closure is to manage inventory properly until removed and perform the duties prescribed in the regulations. Publication 94-111, Section 1.0 states "When closure is being carried out, a unit is referred to as 'closing' or 'in closure'." Such units do not seem to be accurately considered "in service".

Ecology still retains the ability to require appropriate closure requirements through application of WAC 173-303-610, permit requirements of WAC 173-303-806 and/or corrective action requirements of WAC 173-303-646.

Tell us how your recommendation will improve the proposed rule amendments:

Our recommended language will clarify the definition of "closure" (compare definition at 40 CFR 270.2) to correctly reflect its usage in other parts of WAC 173-303. It will also aid in the proper scoping and preparation of closure plans for the units/facilities required to prepare them by WAC 173-303-610(3).

Signature: Harold Tilden (via e-mail)

Date: March 4, 2009

<sup>103</sup> Preamble, p. 14.

**RULE-MAKING PROPOSAL COMMENT FORM**

***Dangerous Waste Regulations, Chapter 173-303 WAC***

Filed on January 15, 2009

First and Last Name: Harold Tilden

Organization or Affiliation: Pacific Northwest National Laboratory

Address: P.O. Box 999, Mail Stop K3-75

City ST Zip: Richland, WA 99352-0999

Indicate if your comment is on the federal or state requirements:

Federal

State

Section No. 045 Page No. 30 Citation No. -045(4)(d)

Please state your comment, question, or recommendation:  
Delete this addition.

Explain your concern:

We do not agree with Ecology's reasoning that SW-846 methods must currently be used in every instance where analysis is required, or that such requirements should be "retained". See detailed comments on Section 110(3).

Tell us how your recommendation will improve the proposed rule amendments:  
Preserves flexibility and cost effectiveness in analysis of solid and dangerous waste.

Signature: Harold Tilden (via e-mail)

Date: March 4, 2009

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**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

Filed on January 15, 2009

First and Last Name: Harold Tilden

Organization or Affiliation: Pacific Northwest National Laboratory

Address: P.O. Box 999, Mail Stop K3-75

City ST Zip: Richland, WA 99352-0999

Indicate if your comment is on the federal or state requirements:

<input type="checkbox"/>	Federal
<input checked="" type="checkbox"/>	State

Section No. 100 Page No. 66-67 Citation No. -100(2)

**Please state your comment, question, or recommendation:**

Delete language in the cited section incorporating the Hazardous Substances Data Bank (HSDB) and the Ecotoxicology Database (ECOTOX) by reference.

**Explain your concern:**

The Administrative Procedures Act at RCW 34.05.365 allows agencies to incorporate by reference "...all or any part of a code, standard, rule or regulation..." The HSDB and ECOTOX databases are online compilations of toxicology data published in periodicals. As a result, they appear unqualified for adoption by reference; they do not appear to qualify as codes, standards, rules, or regulations as those terms are used in RCW 34.05.

RCW 34.05.365 also requires the reference in agency rules to "fully identify the incorporated matter". Not only does the proposed rule not identify the incorporated matter, but the databases proposed for incorporation by reference do not identify it; they only refer the reader to individual periodicals containing the data.

Finally, RCW 34.05.365 authorizes incorporation by reference only when "the agency, organization, or association originally issuing that matter makes copies readily available to the public." The HSDB, and ECOTOX toxicology result summaries are made readily available by the respective agency. However, the studies that are the source of the data are not always readily available, and not necessarily from the respective agency.

It is not clear why incorporation by reference is necessary in order to utilize database information for waste designation. Ecology mandates use of "data that are available to" the generator in preference to the referenced databases; none of that available data is incorporated by reference into the Dangerous Waste Regulations. We do acknowledge that Ecology has previously incorporated RTECS into the Dangerous Waste Regulations by reference and are not requesting that it be deleted at this time.

**Tell us how your recommendation will improve the proposed rule amendments:**

Brings proposed rule into compliance with the Administrative Procedures Act.

Signature: Harold Tilden (via e-mail)

Date: March 4, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

Filed on January 15, 2009

First and Last Name: Harold Tilden

Organization or Affiliation: Pacific Northwest National Laboratory

Address: P.O. Box 999, Mail Stop K3-75

City ST Zip: Richland, WA 99352-0999

Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. 100 Page No. 67-68 Citation No. -100(3) and (5)

Please state your comment, question, or recommendation:

Delete references to the Hazardous Substances Data Bank (HSDB) and the Ecotoxicology Database (ECOTOX).

Explain your concern:

Ecology's approach to require consultation of the ECOTOX and HSDB databases for waste designation results in the significant expansion of the reach of the Dangerous Waste Regulations to solid wastes that should not be regulated as dangerous. While the lack of aquatic toxicity data in RTECS is unfortunate, adopting ECOTOX and HSDB by reference and simply referencing the data in those compilations constitutes misuse of their data as defined by the databases themselves.

EPA's ECOTOX limitations statement includes the following: "You should consult the original scientific paper to ensure an understanding of the context of the data retrieved from the ECOTOX database."<sup>104</sup> HSDB assigns "review status tags" to indicate the level of quality review: data that has been peer reviewed; data that has been quality reviewed but not peer reviewed; and data that has not been reviewed. We believe that only data which has been peer reviewed should be adopted for use for waste designation. RTECS, which has been required for use since 1995, suffers from the same limitations regarding data quality as has been previously cited for ECOTOX and HSDB. In fact, the Centers for Disease Control (sponsoring agency for RTECS) notes that "No attempt has been made to evaluate the studies cited in RTECS. The user has the responsibility of making such assessments."<sup>105</sup> We are not requesting removal of RTECS as a reference at this time, but we note that the use of these databases in this manner ignores the warnings provided by the databases themselves as to the quality of the information presented.

Despite these cautions, Ecology proposes to utilize these compilations as authoritative for all forms of the materials tested. Ecology proposes to adopt the databases for designation, not the underlying research information which is essential in proper application of the test data. As a result, Ecology's proposed approach results in regulation of wastes which RCW 70.105 was never intended to reach, and are not currently regulated.

For example, ECOTOX reports the LC<sub>50</sub> of copper metal (CASRN 7440-50-8) as 39 µg/L for coho salmon<sup>106</sup> and 20 µg/L for chinook salmon<sup>107</sup>. As a result, metallic copper would be a Toxic A constituent, and any waste that contains copper metal at a concentration over 0.01% (100 ppm) would designate as a dangerous waste. Any waste that contained over 1% copper metal would be extremely hazardous. Due to the prevalent use of copper in consumer goods, electrical wiring, construction materials, electronic devices, and even pennies, many such items will be dangerous or extremely hazardous waste when discarded under Ecology's proposed approach.

The regulated community has been able to rely, in the past, on the information on the form of the material tested in the original research. In the instant case, reference to the original research shows that only powdered copper was tested<sup>108</sup>. Generators have not had to consider other forms of copper as potentially regulated, as they have been able

<sup>104</sup> U.S. EPA, ECOTOX database, "[ECOTOX Limitations](#)" website. Viewed 2/6/09.

<sup>105</sup> CDC, NIOSH, "RTECS: [What Is RTECS?](#)" webpage, viewed 2/6/09.

<sup>106</sup> Mudge et al., "Effect of Varying Environmental Conditions on the Toxicity of Copper to Salmon", ECOTOX reference 45201.

<sup>107</sup> Chapman, G.A., and J.K. McCrady, "Copper Toxicity: A Question of Form", ECOTOX reference 2062.

<sup>108</sup> ibid.

to rely on the underlying research results. Ecology's proposed approach references only the database information, not the underlying research, and thus expands the reach of the regulations significantly. It could force generators to conduct needless aquatic toxicity testing in order to overturn the impact of referencing these databases, as only bioassay data can overturn a book designation per WAC 173-303-100(5)(d).

As a second example, HSDB provides a LC<sub>50</sub> for aluminum metal of 120 µg/L in rainbow trout<sup>109</sup> (CASRN 7429-90-5) and ECOTOX gives an LC<sub>50</sub> of 15 µg/L for brown trout<sup>110</sup>. As with copper metal, aluminum metal would be considered a Toxic A constituent and cause many currently unregulated wastes to become dangerous or extremely hazardous. The 15µg/L result was reported on a 42-day exposure to brown trout at the alevin stage<sup>111</sup>, data which is not comparable to the methods specified by Ecology to perform an aquatic toxicity study (96 hour exposure 30-90 days after swim-up, i.e. post-alevin stage).

We understand why Ecology would not wish to require generators to consult the original research referenced in ECOTOX and HSDB. It is not always possible to acquire a copy of the original research, as ECOTOX does not provide copies of copyrighted material and the original publishing journal or other source would have to be contacted. Some data in ECOTOX dates from 1972, and some is from non-English publications. It is impractical to consult individual studies for waste designation in any event. Most waste designators in the state of Washington would likely not be able to review these studies in order to analyze the information, resulting in improper designation of waste.

We are also concerned that the regulation of these metals, and perhaps others, as toxic constituents may result in the need to designate bulky, heterogenous wastes such as construction debris that have traditionally not been considered to require it. In the extreme, individual items discarded in such containers (such as an aluminum beverage can, which HSDB and ECOTOX would designate as WT01, extremely hazardous waste, at the point of generation) might cause an entire dumpster load to be regulated due to the mixture rule, WAC 173-303-150(1). It would then become incumbent on regulated generators of such material to inspect these bulk wastes to make sure they do not contain materials that would cause them to be regulated. Since we have several construction projects ongoing, the impact on those programs would be substantial. The change would also expand the universe of regulated waste generators; for instance, construction companies and the companies contracting them become co-generators of regulated waste through the presence of enough copper and/or aluminum in their construction waste. If the waste contains enough of these metals, or is regulated by the mixture rule, the waste would be extremely hazardous and prohibited from disposal in Washington State per WAC 173-303-140(4)(a).

Ecology, in the past, has indicated that they would help identify usable toxicity information through guidance, rather than through regulation, in order to avoid exclusion of data sources<sup>112</sup>. The proposed rule amendment reverses this policy without explanation.

In summary, the proposed amendments introduce more data of widely variable quality and verifiability with the force of state regulation to book-designate waste. Ecology cites strong, national peer review as its rationale for retention of SW-846 analytical methods in its preamble to this proposed rule amendment. Comparable data or method quality standards are not necessarily followed for the addition of ECOTOX and HSDB; rather, these are recommended because they are free and easily accessed via the Internet. The amendments introduce a considerable amount of added effort to the book designation process and will significantly expand the universe of regulated toxic DW. We strongly encourage Ecology to avoid this outcome by identifying only well-established, peer-reviewed data sources through guidance as the basis for book designation in the absence of waste-specific information available to the generator.

Tell us how your recommendation will improve the proposed rule amendments:

Limits use of inaccurate or inapplicable information in designation of state-only dangerous waste; precludes management of wastes not intended to be regulated pursuant to RCW 70.105 as dangerous or extremely hazardous.

Signature: Harold Tilden (via e-mail)

Date: March 4, 2009

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<sup>109</sup> Holtze, K.E., "Effects of pH and Ionic Strength on Aluminum Toxicity to Early Developmental Stages of Rainbow Trout (*Salmo gairdneri* Richardson), Ontario Ministry of the Environment, Rexdale, Ontario, Canada: 39 (1983). ECOTOX reference 14405.

<sup>110</sup> Weatherly et al., "The Survival of Early Life States of Brown Trout (*Salmo trutta* L.) in Relation to Aluminum Speciation in Upland Welsh Streams", in *Aquatic Toxicology* 17(3):213-230, 1990. ECOTOX reference 3472.

<sup>111</sup> *Ibid.*

<sup>112</sup> Ecology, Responsiveness Summary for 1995 DW Regulations Amendments, Publication 95-423, p. 44, response to Comment 132.



**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

Filed on January 15, 2009

First and Last Name: Harold Tilden

Organization or Affiliation: Pacific Northwest National Laboratory

Address: P.O. Box 999, Mail Stop K3-75

City ST Zip: Richland, WA 99352-0999

Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. 100 Page No. 67-68 Citation No. -100(2), (3) and (5)

**Please state your comment, question, or recommendation:**

Ecology's analysis of costs and benefits from this rulemaking overlooks significant new costs to the regulated community while overstating savings. Ecology's Small Business Economic Impact Statement contains the same oversight. A further analysis should be undertaken to determine whether the proposed rule properly evaluates cost/benefit and whether it may disproportionately impact small business by causing them to become large quantity hazardous waste generators.

**Explain your concern:**

Ecology's analysis of costs and benefits (Publication 09-04-006), page 6, values the adoption of this rule as a cost savings to Washington dangerous waste generators of \$140,000 per year. Ecology's Small Business Economic Impact Statement (Publication 09-04-005), pages 3 and 15, portrays the adoption of this rule as a cost savings to Washington dangerous waste generators. This value is overstated, as it presumes that generators would not need to subscribe to one of the RTECS information services if ECOTOX and HSDB were used instead. However, Ecology's proposed rule incorporates RTECS by reference along with ECOTOX and HSDB (subsection 2), and requires RTECS' use along with the other two databases to determine which has the highest toxicity for the same test endpoint (subsections 3 and 5). Any generator that did not consult RTECS, trusting ECOTOX and/or HSDB to report the applicable data in RTECS, would be undertaking a compliance risk. Most generators are unlikely to undertake this risk for the potential savings of roughly \$500 per year, as fines and penalties for misdesignation of waste are usually many times this amount.

In addition to overstating savings, the analysis of costs and benefits completely ignores the significant economic cost of regulating hundreds of new dangerous wastes resulting from widespread use of ECOTOX and HSDB as a regulatory requirement. For instance, ECOTOX gives the aquatic toxicity of copper metal (CASRN 7440-50-8) as 39 µg/L for coho salmon<sup>113</sup> and 20 µg/L for chinook salmon<sup>114</sup>. As a result, metallic copper would be a Toxic A constituent, and any waste that contains copper metal at a concentration over 0.01% (100 ppm) would designate as a dangerous waste.

A second example is aluminum metal. HSDB provides a LC<sub>50</sub> for elemental aluminum of 120 µg/L in rainbow trout<sup>115</sup> (CASRN 7429-90-5) and ECOTOX gives an LC<sub>50</sub> of 15 µg/L for brown trout<sup>116</sup>. As with copper metal, aluminum metal would be considered a Toxic A constituent and cause many currently unregulated wastes to become dangerous. In short, Ecology is significantly broadening the scope of the Dangerous Waste Regulations without determining the economic impact of the change.

<sup>113</sup> Mudge et al., "Effect of Varying Environmental Conditions on the Toxicity of Copper to Salmon", ECOTOX reference 45201.

<sup>114</sup> Chapman, G.A., and J.K. McCrady, "Copper Toxicity: A Question of Form", ECOTOX reference 2062.

<sup>115</sup> Holtze, K.E., "Effects of pH and Ionic Strength on Aluminum Toxicity to Early Developmental Stages of Rainbow Trout (*Salmo gairdneri* Richardson), Ontario Ministry of the Environment, Rexdale, Ontario, Canada: 39 (1983). ECOTOX reference 14405.

<sup>116</sup> Weatherly et al., "The Survival of Early Life States of Brown Trout (*Salmo trutta* L.) in Relation to Aluminum Speciation in Upland Welsh Streams", in *Aquatic Toxicology* 17(3):213-230, 1990. ECOTOX reference 3472.

Tell us how your recommendation will improve the proposed rule amendments:  
Allow Ecology to make a proper determination of cost/benefit of the proposed regulation as required by 34.05 RCW; allow Ecology to make a proper determination of small business impact of the proposed regulation as required by 19.85 RCW.

Signature: Harold Tilden (via e-mail)

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Date: March 4, 2009

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# RULE-MAKING PROPOSAL COMMENT FORM

## *Dangerous Waste Regulations, Chapter 173-303 WAC*

Filed on January 15, 2009

First and Last Name: Harold Tilden

Organization or Affiliation: Pacific Northwest National Laboratory

Address: P.O. Box 999, Mail Stop K3-75

City ST Zip: Richland WA 99352-0999

Indicate if your comment is on the federal or state requirements:

Federal

State

Section No. 104 Page No. 71 Citation No. -104(5)

Please state your comment, question, or recommendation:

Please provide an alternative method for generator annual reporting for labpacks.

Explain your concern:

With the deletion of the WL01 and WL02 waste codes, we have experienced a significant increase in cost associated with preparing annual reports. While we understand the reasons for deleting the WL01 and WL02 waste codes from the regulations, we request that Ecology modify TurboWaste to allow reporting of combination packagings as a single waste unit rather than a unique container exhibiting every waste code represented in the package. Under current regulation and TurboWaste requirements, nearly every container within a labpack must be identified as a separate waste stream and have its own GM form since each labpack generally contains a different assortment of wastes and waste codes. There is likely little value to Ecology, the regulated community, or the public in the bulkier annual report submittals that have resulted from the deletion of these waste codes.

Tell us how your recommendation will improve the proposed rule amendments:

Streamlines annual reporting for labpacks without requiring the labpack waste codes to be restored to the regulations.

Signature: Harold Tilden (via e-mail)

Date: March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

## ***Dangerous Waste Regulations, Chapter 173-303 WAC***

Filed on January 15, 2009

First and Last Name: Harold Tilden

Organization or Affiliation: Pacific Northwest National Laboratory

Address: P.O. Box 999, Mail Stop K3-75

City ST Zip: Richland WA 99352-0999

Indicate if your comment is on the federal or state requirements:

Federal

State

Section No. 110 Page No. 73 Citation No. -110(3)(a)

Please state your comment, question, or recommendation:

Replace the text of this section with the identity of the specific test procedures being incorporated. The specific test procedures from SW-846 that are incorporated should be the same list as that found in 40 CFR 260.11(c)(3).

Explain your concern:

This comment rises from two concerns.

Our first concern is that the Administrative Procedures Act at RCW 34.05.365 allows agencies to incorporate by reference "...all or any part of a code, standard, rule or regulation..." The SW-846 manual is a compilation of testing methods. As a result, it appears unqualified for adoption by reference; the manual as a whole does not appear to qualify as codes, standards, rules, or regulations as those terms are used in RCW 34.05.

RCW 34.05.365 also requires the reference in agency rules to "fully identify the incorporated matter". It is not clear whether Ecology intends to incorporate the entire manual, just the test procedures (as intimated by the preamble and other changes to the regulations), or some other subset of SW-846.

We are also concerned that by incorporating the entire SW-846 manual, Ecology is using this section to make mandatory not only those testing methods that were made nonmandatory by the federal Methods Innovation Rule<sup>117</sup>, but methods that were never previously mandatory. Table 2 in the preamble to the Methods Innovation Rule<sup>118</sup> enumerates which portions of the Federal rules were being amended to delete the mandatory use of SW-846. These deletions are relatively minor in scope and would impact very few facilities in Washington State, with the possible exception of the method for measuring air emissions from tanks and containers.

However, inclusion of all of SW-846 "by reference" appears to make mandatory methods that were never previously required for waste analysis. For example, EPA notes in the preamble of the Methods

<sup>117</sup> 70 FR 34537, 6/14/05.

<sup>118</sup> *ibid.* at 34546.

Innovation Rule<sup>119</sup> that the Toxicity Characteristic Leaching Procedure (SW-846 Method 1311), while required to prepare an extract for analysis, does not specify the method for analysis of the resulting extract. Instead, it allows use of “appropriate analytical methods” and has since 1992<sup>120</sup>. It is not clear why Ecology believes SW-846 testing methods are now the only way such extracts can be properly analyzed. In fact, EPA states the opposite in its preamble: “EPA also believes that method selection should be a project-specific decision and therefore cannot recommend or approve any methods – even SW-846 methods – as always being appropriate for any given application ... Relying on the fact that a method is contained in SW-846 does not guarantee that the method will always generate effective data under any situation. If the SW-846 method is not an appropriate method for its intended application, following it exactly could generate erroneous data and could fail to demonstrate compliance with the RCRA requirements.”<sup>121</sup> Further, “The Agency [i.e. EPA] strongly disagrees with commenters that SW-846 methods should be identified as always appropriate.”<sup>122</sup>

So, while Ecology states that “Washington and other states have depended upon SW-846 to provide validated methods that can be used to meet the requirements of the regulations”<sup>123</sup>, the document’s author (EPA) disagrees that it fulfills that role and says it should not be used in that manner. Ecology states that it “cannot divert already over-extended resources to review methods outside of SW-846”<sup>124</sup>, yet it retains the option to petition for use of other methods and admits that “the generator remains legally liable for designation of its waste”<sup>125</sup>.

Ecology has not provided any data to demonstrate that use of SW-846 is universally appropriate or compliant. Ecology has also not demonstrated that EPA improperly made any SW-846 methods nonmandatory in any of the situations where Ecology proposes to make them mandatory. Ecology should not pursue blanket imposition of SW-846 without substantial justification.

Tell us how your recommendation will improve the proposed rule amendments:  
Brings proposed rule into compliance with the Administrative Procedures Act; incorporates only the methods required for compliance into the Dangerous Waste Regulations.

Signature: Harold Tilden (via e-mail)

Date: March 4, 2009

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<sup>119</sup> Ibid. at 34543.

<sup>120</sup> Ibid. See also SW-846, Method 1311, Sections 7.2.14 and 7.3.15.

<sup>121</sup> Ibid.

<sup>122</sup> Ibid. at 34545.

<sup>123</sup> Ecology, “Proposed Amendments” [preamble], p. 7.

<sup>124</sup> Ibid.

<sup>125</sup> Ibid.

**RULE-MAKING PROPOSAL COMMENT FORM**

***Dangerous Waste Regulations, Chapter 173-303 WAC***

Filed on January 15, 2009

First and Last Name: Harold Tilden

Organization or Affiliation: Pacific Northwest National Laboratory

Address: P.O. Box 999, Mail Stop K3-75

City ST Zip: Richland WA 99352-0999

Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. 110 Page No. 74 Citation No. -110(3)(f)

Please state your comment, question, or recommendation:  
Delete this subsection.

Explain your concern:

As this subsection has been reworded, it now makes mandatory selecting one of the methods given in Chapter Two of SW-846 for any waste. This is inconsistent with the remainder of Section 110, where other methods are specified for certain types of wastes or certain constituents. Further, as presently written, subsection (f) is redundant to subsection (a) of this section, as SW-846 is already incorporated by reference in its entirety via the changes to subsection (a). The original purpose of subsection (f) was to assure consistency with Federal rules by referencing 40 CFR 261 Appendix II and Appendix III. As EPA has removed and reserved both appendices, the references are no longer necessary and Ecology has determined not to be consistent with Federal rules in any event.

Note: refer to our comment on subsection (3)(a) for recommended wording of that subsection.

Tell us how your recommendation will improve the proposed rule amendments:  
Simplifies the references provided in this section.

Signature: Harold Tilden (via e-mail)

Date: March 4, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

Filed on January 15, 2009

First and Last Name: Harold Tilden

Organization or Affiliation: Pacific Northwest National Laboratory

Address: P.O. Box 999, Mail Stop K3-75

City ST Zip: Richland WA 99352-0999

Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. 110 Page No. 75 Citation No. -110(5)

**Please state your comment, question, or recommendation:**

Revise this subsection to read: (5) Equivalent testing or analytical methods. Any person may petition for a regulatory amendment to add a testing or analytical method to this section by preparing and submitting a petition to the department in accordance with WAC 173-303-910(2).

**Explain your concern:**

The words "testing or analytical method" are added since Ecology's stated intent is to apply this process to testing methods, not to other subjects in this section (e.g. sampling methods). This change also restores consistency with -910(2).

Restore use of word "may" instead of "must". There is no reason to insist on use of the petition process in all cases. For instance, Ecology permit writers should have the flexibility to allow alternative methods to be used in the context of individual permitted facilities where appropriate. Ecology states that this is their intent<sup>126</sup>, but the wording of this section appears to preclude it. Further, discussion with some Ecology permit writers has indicated that they would not be able to authorize use of alternate methods in permits if this language is adopted. There are many reasons that alternative test methods should be considered for use, and we object to the requirement to use only the methods listed in section -110 in our comment on subsection -110(1). Further, the subsection -910(2) process results in an amendment to WAC 173-303. This process is expensive and time-consuming. Other processes should be considered in cases where an amendment to the WAC is unnecessary, e.g. one-time approvals.

**Tell us how your recommendation will improve the proposed rule amendments:**

Provides clarification and flexibility in the application of this subsection.

Signature: Harold Tilden (via e-mail)

Date: March 4, 2009

<sup>126</sup> Preamble, p. 15.

# RULE-MAKING PROPOSAL COMMENT FORM

## *Dangerous Waste Regulations, Chapter 173-303 WAC*

Filed on January 15, 2009

First and Last Name: Harold Tilden

Organization or Affiliation: Pacific Northwest National Laboratory

Address: P.O. Box 999, Mail Stop K3-75

City ST Zip: Richland WA 99352-0999

Indicate if your comment is on the federal or state requirements:

Federal

State

Section No. 110 Page No. 75 Citation No. -110(6)

Please state your comment, question, or recommendation:

Delete this subsection.

Explain your concern:

Reporting of analytical results on a dry weight basis is inappropriate for a number of reasons. First, it appears that if the test method is performed for waste designation purposes, a dry weight measurement will produce an analytical result that is not representative of the waste at the point of the generation when the waste contains water or moisture.

As a specific example of a parameter where a dry measurement is inappropriate, the amount of water in a sample is immaterial to the measurement of pH in soil (SW-846 Method 9045D), as water is added to the sample during analysis. Further, Method 9045D specifies that the sample must be less than 20% water. Ecology has not indicated the regulatory basis for adding a requirement for reporting all results on a dry weight basis, especially since solids and soils can vary in moisture content as a normal part of generation. No explanation of why compensation for variability in water content is necessary is offered. Improper dilution of waste to avoid regulation is already proscribed by WAC 173-303.

Ecology has not established the value of a "consistent procedure for all analytical results" since most analyses for designation purposes are never submitted to Ecology, and the generator retains the responsibility to properly designate their waste in any event<sup>127</sup>. If Ecology wishes to consistently evaluate analytical results for which certification of designation has been requested under the provisions of WAC 173-303-075, Ecology can add this requirement to that section without requiring the vast majority of designations not submitted to Ecology include this requirement. Soils and solid materials typically vary in water content as generated. This requirement would add the analysis of water content (Ecology estimate of less than \$25 per sample) to the analytical cost for any soil or solids sample.

Also note that Ecology already has the authority to require any generator to analyze its waste (including for moisture content) at WAC 173-303-070(4) for cause.

<sup>127</sup> WAC 173-303-070(1)(b); see also Preamble, p. 7.



We also note with interest that Ecology’s “Background and Rationale for the Update of Biological Testing Methods ...” issued at the same time as this proposed rule describes Ecology’s reasoning for deleting the requirement to determine the moisture content of a sample being tested for toxicity pursuant to the Biological Testing Methods. It would appear that the same rationale described for deleting the moisture content determination requirement from the Biological Testing Methods would argue against the addition of this requirement in WAC 173-303-110(6).

Although Ecology has stated that it has always been their intent that results be reported this way, this requirement has not appeared in Ecology’s Chemical Test Methods guidance in the past. It is also not mentioned anywhere in the revised Chemical Test Methods document provided with this proposed rule, even though the Preamble states that it does<sup>128</sup>.

Tell us how your recommendation will improve the proposed rule amendments:  
Avoid imposition of unnecessary requirements to waste generators statewide.

Signature: Harold Tilden (via e-mail)

Date: March 4, 2009

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<sup>128</sup> Preamble, p. 15.

**RULE-MAKING PROPOSAL COMMENT FORM**

***Dangerous Waste Regulations, Chapter 173-303 WAC***

Filed on January 15, 2009

First and Last Name: Harold Tilden

Organization or Affiliation: Pacific Northwest National Laboratory

Address: P.O. Box 999, Mail Stop K3-75

City ST Zip: Richland WA 99352-0999

Indicate if your comment is on the federal or state requirements:

Federal

State

Section No. 140 Page No. 80 Citation No. -140(2)(a)

Please state your comment, question, or recommendation:

Delete the proposed added sentence at the end of this paragraph imposing WAC 173-303-110(3)(a) in lieu of 40 CFR 260.11.

Explain your concern:

We do not agree that imposition of the specified methods in WAC 173-303-110(3)(a) is appropriate in every case. Refer to our comments on WAC 173-303-110(3)(a).

Tell us how your recommendation will improve the proposed rule amendments:

Incorporates only the methods required for compliance into the Dangerous Waste Regulations.

Signature: Harold Tilden (via e-mail)

Date: March 4, 2009

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**RULE-MAKING PROPOSAL COMMENT FORM**

***Dangerous Waste Regulations, Chapter 173-303 WAC***

Filed on January 15, 2009

First and Last Name: Harold Tilden

Organization or Affiliation: Pacific Northwest National Laboratory

Address: P.O. Box 999, Mail Stop K3-75

City ST Zip: Richland, WA 99352

Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. 200 Page No. 96 Citation No. -200(2)(a)

Please state your comment, question, or recommendation:

We commend Ecology for making this change to allow satellite accumulation to more closely correlate with Federal requirements for same. We also suggest that, once incorporated, Ecology's guidance document on satellite accumulation be updated to reflect this change.

Explain your concern:  
None.

Tell us how your recommendation will improve the proposed rule amendments:  
Consistency with Federal guidance.

Signature: Harold Tilden (via e-mail)

Date: March 4, 2009

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# RULE-MAKING PROPOSAL COMMENT FORM

## ***Dangerous Waste Regulations, Chapter 173-303 WAC***

Filed on January 15, 2009

First and Last Name: Harold Tilden

Organization or Affiliation: Pacific Northwest National Laboratory

Address: P.O. Box 999, Mail Stop K3-75

City ST Zip: Richland WA 99352-0999

Indicate if your comment is on the federal or state requirements:

Federal

State

Section No. 300 Page No. 120 Citation No. -300(5)(f)

Please state your comment, question, or recommendation:

Delete proposed added sentence.

Explain your concern:

The added sentence requires use of the specified methods in WAC 173-303-110(3), as proposed, for all laboratory analyses used in connection with a waste analysis plan. We object to Ecology's approach for mandatory use of the methods specified in -110(3), unless those methods are the only one capable of measuring a particular property (e.g. toxicity characteristic leaching procedure). See our comments on -110(3)(a).

Further, the inclusion of this requirement in this section ties the hands of Ecology permit writers in developing appropriate test methods for permitted facilities. In its preamble, Ecology states that "other methods can be used in permits to support facility operations."<sup>129</sup> Inclusion of this sentence here overturns Ecology's stated intention, as permit writers will have no choice but to require -110(3) methods be used in waste analysis plans.

Tell us how your recommendation will improve the proposed rule amendments:

Preserve flexibility in permits; incorporates only the methods required for compliance into the Dangerous Waste Regulations.

Signature: Harold Tilden (via e-mail)

Date: March 4, 2009

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<sup>129</sup> Preamble, p. 15, reason for change to 110(1).

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

Filed on January 15, 2009

First and Last Name: Harold Tilden

Organization or Affiliation: Pacific Northwest National Laboratory

Address: P.O. Box 999, Mail Stop K3-75

City ST Zip: Richland, WA 99352

Indicate if your comment is on the federal or state requirements:

<input type="checkbox"/>	Federal
<input checked="" type="checkbox"/>	State

Section No. 320 Page No. N/A Citation No. -320(2)(c)

Please state your comment, question, or recommendation:

*Revise WAC 173-303-320(2)(c) to read as follows:*

(c) The schedule must indicate the frequency of inspection for the items on the schedule. The frequency should be based on the rate of possible deterioration of equipment, and the probability of an environmental or human health incident if the deterioration, malfunction, or operator error goes undetected between inspections. Areas subject to spills, such as loading and unloading areas, must be inspected daily when in use, except for Performance Track member facilities, that must inspect at least once each month, upon approval by the Department as described in paragraph (4). At a minimum, the inspection schedule must...

*Add a new paragraph (4) to WAC 173-303-320 to read as follows:*

(4) Performance Track member facilities that choose to reduce their inspection frequency must:

(i) Submit a request for a Class 1 permit modification with prior approval to the department. The modification request must identify the facility as a member of the National Environmental Performance Track Program and identify the management units for reduced inspections and the proposed frequency of inspections. The modification request must also specify, in writing, that the reduced inspection frequency will apply for as long as the facility is a Performance Track member facility, and that within seven calendar days of ceasing to be a Performance Track member, the facility will revert to the non-Performance Track inspection frequency. Inspections must be conducted at least once each month.

(ii) Within 60 days, the Director will notify the Performance Track member facility, in writing, if the request is approved, denied, or if an extension to the 60-day deadline is needed. This notice must be placed in the facility's operating record. The Performance Track member facility should consider the application approved if the Director does not: deny the application; or notify the Performance Track member facility of an extension to the 60-day deadline. In these situations, the Performance Track member facility must adhere to the revised inspection schedule outlined in its request for a Class 1 permit modification and keep a copy of the application in the facility's operating record.

(iii) Any Performance Track member facility that discontinues their membership or is terminated from the program must immediately notify the Director of their change in status. The facility must place in its operating record a dated copy of this notification and revert back to the non-Performance Track inspection frequencies within seven calendar days.

*Revise WAC 173-303-630(6) to read:*

(6) Inspections. At least weekly, the owner or operator must inspect areas where containers are stored, except for Performance Track member facilities, that may conduct inspections at least once per month, upon approval by the department. To apply for reduced inspection frequencies, the Performance Track member facility must follow the procedures identified in WAC 173-303-320(4). The owner or operator must look for leaking containers and for deterioration of containers and the containment system caused by corrosion or other factors. The owner or operator must keep an inspection log ...

Revise WAC 173-303-640(6)(b) to read:

(b) Except as noted under paragraph (f) of this section, the owner or operator must ...

Add a new paragraph (f) to WAC 173-303-640(6) to read:

(f) Performance Track member facilities may inspect on a less frequent basis, upon approval by the department, but must inspect at least once each month. To apply for a less than weekly inspection frequency, the Performance Track member facility must follow the procedures described in WAC 173-303-320(4).

#### Explain your concern:

We strongly recommend that Ecology add potentially decreased inspection requirements for members of EPA's National Environmental Performance Track program as adopted by Federal regulations. Ecology's rationale for not adopting this rule, as given in the preamble, is that reduced inspections could lessen the current level of human or environmental protection, reduce access to available information, or risk a conflict of interest<sup>130</sup>. However, as required under the equivalent EPA regulations and included in proposed section -320(4), Ecology has the authority to review and authorize (or deny) each request for reduced inspection frequency. As a result of this review process, there is no potential for reduced protection inherent in the adoption of this rule. Performance Track members would be responsible for demonstrating adequate human and environmental protection as a part of any proposal for reduced inspection frequencies. For instance, Performance Track members will have environmental management system requirements for accumulation, and regulatory-compliant leak detection systems for tank systems.

Review of requests for reduced inspection requirements should not present significant resource burdens for Ecology. As of February 2009, there are nineteen Performance Track facilities in the state of Washington. Only one request for inspection frequency change is required per member facility, and it is possible that not all Performance Track members would seek this change for their facilities. Hence the review of the few requests that would potentially be filed would not represent a significant change in Ecology program costs.

Ecology should strive to provide incentives for beyond-compliance environmental performance, such as those achieved by Performance Track members, as envisioned by its Performance Partnership Agreement with EPA<sup>131</sup> and Ecology's Beyond Waste plan<sup>132</sup>. Facilities must demonstrate superior environmental performance to become Performance Track members. The relatively modest incentives available to be provided to members should be readily adopted by Ecology in order to incentivize voluntary, superior environmental performance at Washington facilities.

#### Tell us how your recommendation will improve the proposed rule amendments:

Enhance consistency with Federal regulations and incentivize superior environmental performance by Washington facilities.

Signature: Harold Tilden (via e-mail)

Date: March 4, 2009

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<sup>130</sup> Preamble, p. 10, 2<sup>nd</sup> paragraph.

<sup>131</sup> See "Environmental Performance Partnership Agreement", Ecology Publication 07-01-028, p. 11, 40, and Appendix 3.

<sup>132</sup> See, e.g., "Potential Enhancements to Ecology's Pollution Prevention Planning Program", Ecology Publication 03-04-033, p. 30-33.

**RULE-MAKING PROPOSAL COMMENT FORM**

***Dangerous Waste Regulations, Chapter 173-303 WAC***

Filed on January 15, 2009

First and Last Name: Harold Tilden

Organization or Affiliation: Pacific Northwest National Laboratory

Address: P.O. Box 999, Mail Stop K3-75

City ST Zip: Richland WA 99352-0999

Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. 370 Page No. 124 Citation No. -370(2)(b)

Please state your comment, question, or recommendation:  
Correct the reference as follows: ...“(as defined in subsection (5)(a) of this section)”...

Explain your concern:  
Definition of manifest discrepancies has moved to subsection (5)(a).

Tell us how your recommendation will improve the proposed rule amendments:  
Updates reference to manifest discrepancies as has been done in subsection (4)(b).

Signature: Harold Tilden (via e-mail)

Date: March 4, 2009

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**RULE-MAKING PROPOSAL COMMENT FORM**

***Dangerous Waste Regulations, Chapter 173-303 WAC***

Filed on January 15, 2009

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Organization or Affiliation: Pacific Northwest National Laboratory

Address: P.O. Box 999, Mail Stop K3-75

City ST Zip: Richland WA 99352-0999

Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. 370 Page No. 125 Citation No. -370(4)(b)

Please state your comment, question, or recommendation:

Revise this to read: "Note any discrepancies (as defined in subsection (5)(a) of this section) in the manifest or shipping paper (if the manifest has not been received) on each copy of the manifest or shipping paper."

Explain your concern:

Should note the specific subsection that describes discrepancies; most of the rest of section (5) deals with how to deal with the discrepancies once discovered and is not relevant here. This change also makes the wording consistent with -370(2)(b) (see our comment at -370(2)(b)) and with 40 CFR 264.71(a)(2)(ii) and (b)(2)(ii), with which this wording is intended to be consistent.

Tell us how your recommendation will improve the proposed rule amendments:

Consistent wording and correct references to reflect new manifest requirements.

Signature: Harold Tilden (via e-mail)

Date: March 4, 2009

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**RULE-MAKING PROPOSAL COMMENT FORM**

***Dangerous Waste Regulations, Chapter 173-303 WAC***

Filed on January 15, 2009

First and Last Name: Harold Tilden

Organization or Affiliation: Pacific Northwest National Laboratory

Address: P.O. Box 999, Mail Stop K3-75

City ST Zip: Richland WA 99352-0999

Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. 370 Page No. 128 Citation No. -370(6)(a)(ii)

Please state your comment, question, or recommendation:  
Revise this to read: "...as defined in subsection (5)(a) of this section..."

Explain your concern:  
Should note the specific subsection that describes discrepancies; most of the rest of section (5) deals with how to deal with the discrepancies once discovered and is not relevant here. This change also makes the wording consistent with -370(2)(b) and -370(4)(b) (see our comments at those subsections).

Tell us how your recommendation will improve the proposed rule amendments:  
Consistent wording and correct references to reflect new manifest requirements.

Signature: Harold Tilden (via e-mail)

Date: March 4, 2009

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# RULE-MAKING PROPOSAL COMMENT FORM

## ***Dangerous Waste Regulations, Chapter 173-303 WAC***

Filed on January 15, 2009

First and Last Name: Harold Tilden

Organization or Affiliation: Pacific Northwest National Laboratory

Address: P.O. Box 999, Mail Stop K3-75

City ST Zip: Richland WA 99352-0999

Indicate if your comment is on the federal or state requirements:

Federal

State

Section No. 380 Page No. 129 Citation No. -380(1)(c)

Please state your comment, question, or recommendation:  
Delete proposed added sentence.

Explain your concern:

The added sentence requires use of the specified methods in WAC 173-303-110(3)(a), as proposed, for all laboratory analyses used in connection with a waste analysis plan. We object to Ecology's approach for mandatory use of the methods specified in -110(3), unless those methods are the only one capable of measuring a particular property (e.g. toxicity characteristic leaching procedure). See our comments on -110(3)(a). In addition, this sentence only allows SW-846 test methods, and not the other test methods incorporated in -110(3)(b)-(h).

Further, the inclusion of this requirement in this section ties the hands of Ecology permit writers in developing appropriate test methods for permitted facilities. In its preamble, Ecology states that "other methods can be used in permits to support facility operations."<sup>133</sup> Inclusion of this sentence here overturns Ecology's stated intention, as permit writers will have no choice but to require -110(3) methods be used in all monitoring, testing, and analytical data.

Tell us how your recommendation will improve the proposed rule amendments:

Preserve flexibility in permits; incorporates only the methods required for compliance into the Dangerous Waste Regulations.

Signature: Harold Tilden (via e-mail)

Date: March 4, 2009

<sup>133</sup> Preamble, p. 15, reason for change to 110(1).

# RULE-MAKING PROPOSAL COMMENT FORM

## ***Dangerous Waste Regulations, Chapter 173-303 WAC***

Filed on January 15, 2009

First and Last Name: Harold Tilden

Organization or Affiliation: Pacific Northwest National Laboratory

Address: P.O. Box 999, Mail Stop K3-75

City ST Zip: Richland WA 99352-0999

Indicate if your comment is on the federal or state requirements:

Federal

State

Section No. 380 Page No. 129 Citation No. -380(1)(f)

Please state your comment, question, or recommendation:

Delete proposed added sentence at end of this subsection.

Explain your concern:

The added sentence requires use of the specified methods in WAC 173-303-110(3)(a), as proposed, for all laboratory analyses used in connection with a waste analysis plan. We object to Ecology's approach for mandatory use of the methods specified in -110(3), unless those methods are the only one capable of measuring a particular property (e.g. toxicity characteristic leaching procedure). See our comments on -110(3)(a). In addition, this sentence only allows SW-846 test methods, and not the other test methods incorporated in -110(3)(b)-(h).

Further, the inclusion of this requirement in this section ties the hands of Ecology permit writers in developing appropriate test methods for permitted facilities. In its preamble, Ecology states that "other methods can be used in permits to support facility operations."<sup>134</sup> Inclusion of this sentence here overturns Ecology's stated intention, as this requirement appears to mandate that permit writers require -110(3) methods be used in all monitoring, testing, and analytical data.

Tell us how your recommendation will improve the proposed rule amendments:

Preserve flexibility in permits; incorporates only the methods required for compliance into the Dangerous Waste Regulations.

Signature: Harold Tilden (via e-mail)

Date: March 4, 2009

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<sup>134</sup> Preamble, p. 15, reason for change to 110(1).

**RULE-MAKING PROPOSAL COMMENT FORM**

***Dangerous Waste Regulations, Chapter 173-303 WAC***

Filed on January 15, 2009

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Organization or Affiliation: Pacific Northwest National Laboratory

Address: P.O. Box 999, Mail Stop K3-75

City ST Zip: Richland WA 99352-0999

Indicate if your comment is on the federal or state requirements:

Federal

State

Section No. 380 Page No. 131 Citation No. -380(2)(c), Table 1

Please state your comment, question, or recommendation:

Delete repeat references to pounds, short tons, and kilograms. Clarify whether "tons" refers to long tons (2200 lbs), metric tons (1000 Kg), or some other type of ton.

Explain your concern:

The repeated appearance of pounds, short tons, and kilograms at the bottom of Table 1 should be avoided. Either delete them at the bottom of the table or delete the previous instances in the table. As to the reference to "tons (M)", define what type of ton is intended. The Federal rule does not indicate whether this is a metric ton (as implied by the use of the code "M") or some other type of ton.

Tell us how your recommendation will improve the proposed rule amendments:

Simplifies and clarifies the use of Table 1.

Signature: Harold Tilden (via e-mail)

Date: March 4, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

Filed on January 15, 2009

First and Last Name: Harold Tilden

Organization or Affiliation: Pacific Northwest National Laboratory

Address: P.O. Box 999, Mail Stop K3-75

City ST Zip: Richland WA 99352-0999

Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. 400 Page No. 140 Citation No. -400(3)(c)(iii)

Please state your comment, question, or recommendation:  
Delete proposed added sentence and revise section numbering accordingly.

Explain your concern:  
The added sentence requires use of the specified methods in WAC 173-303-110(3)(a), as proposed, for all laboratory analyses used in connection with a waste analysis plan. We object to Ecology's approach for mandatory use of the methods specified in -110(3), unless those methods are the only one capable of measuring a particular property (e.g. toxicity characteristic leaching procedure). See our comments on -110(3)(a). In addition, this sentence only allows SW-846 test methods, and not the other test methods incorporated in -110(3)(b)-(h).

Tell us how your recommendation will improve the proposed rule amendments:  
Incorporates only the methods required for compliance into the Dangerous Waste Regulations.

Signature: Harold Tilden (via e-mail)

Date: March 4, 2009

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# RULE-MAKING PROPOSAL COMMENT FORM

## *Dangerous Waste Regulations, Chapter 173-303 WAC*

Filed on January 15, 2009

First and Last Name: Harold Tilden

Organization or Affiliation: Pacific Northwest National Laboratory

Address: P.O. Box 999, Mail Stop K3-75

City ST Zip: Richland WA 99352-0999

Indicate if your comment is on the federal or state requirements:

Federal

State

Section No. 515 Page No. 153 Citation No. -515(3) and (4)

Please state your comment, question, or recommendation:

Delete proposed added sentence in each of these subsections.

Explain your concern:

The added sentence requires use of the specified methods in WAC 173-303-110(3), as proposed, for all laboratory analyses used in analyzing used oil. We object to Ecology's approach for mandatory use of the methods specified in -110(3), unless those methods are the only one capable of measuring a particular property (e.g. toxicity characteristic leaching procedure). See our comments on -110(3)(a).

Tell us how your recommendation will improve the proposed rule amendments:

Incorporates only the methods required for compliance into the Dangerous Waste Regulations.

Signature: Harold Tilden (via e-mail)

Date: March 4, 2009

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# RULE-MAKING PROPOSAL COMMENT FORM

## *Dangerous Waste Regulations, Chapter 173-303 WAC*

Filed on January 15, 2009

First and Last Name: Harold Tilden

Organization or Affiliation: Pacific Northwest National Laboratory

Address: P.O. Box 999, Mail Stop K3-75

City ST Zip: Richland WA 99352-0999

Indicate if your comment is on the federal or state requirements:

Federal

State

Section No. 690 Page No. 74 Citation No. -690(3)

Please state your comment, question, or recommendation:

Delete this proposed addition.

Explain your concern:

The added sentence requires use of the specified methods in WAC 173-303-110(3)(a), as proposed, for all laboratory analyses used to determine whether a waste is subject to Subpart AA. We object to Ecology's approach for mandatory use of the methods specified in -110(3), unless those methods are the only one capable of measuring a particular property (e.g. toxicity characteristic leaching procedure). See our comments on -110(3)(a). In addition, this sentence only allows SW-846 test methods [as referenced in subsection (3)(a)], and not the other test methods incorporated in -110(3)(b)-(h). Some of these test methods are incorporated at -110(3) for the express purpose of meeting the requirements of 40 CFR 264 Subpart AA, incorporated by reference; see -110(3)(g)(i) through (viii). All of these requirements have been preserved in 40 CFR 260.11; hence, if Ecology intends to preserve the methods of compliance with the requirements incorporated by reference, this addition is unnecessary.

Tell us how your recommendation will improve the proposed rule amendments:

Incorporates only the methods required for compliance into the Dangerous Waste Regulations.

Signature: Harold Tilden (via e-mail)

Date: March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

## *Dangerous Waste Regulations, Chapter 173-303 WAC*

Filed on January 15, 2009

First and Last Name: Harold Tilden

Organization or Affiliation: Pacific Northwest National Laboratory

Address: P.O. Box 999, Mail Stop K3-75

City ST Zip: Richland, WA 99352

Indicate if your comment is on the federal or state requirements:

Federal

State

Section No. 691 Page No. 75 Citation No. -691(3)

Please state your comment, question, or recommendation:

Delete this proposed addition.

Explain your concern:

The added sentence requires use of the specified methods in WAC 173-303-110(3)(a), as proposed, for all laboratory analyses used in connection with determining whether a waste is subject to Subpart BB. We object to Ecology's approach for mandatory use of the methods specified in -110(3), unless those methods are the only one capable of measuring a particular property (e.g. toxicity characteristic leaching procedure). See our comments on -110(3)(a). In addition, this sentence only allows SW-846 test methods, and not the other test methods incorporated in -110(3)(b)-(h). Some of these test methods are incorporated at -110(3) for the express purpose of meeting the requirements of 40 CFR 264 Subpart BB, incorporated by reference; see -110(3)(g)(i) through (viii). All of these requirements have been preserved in 40 CFR 260.11; hence, if Ecology intends to preserve the methods of compliance with the requirements incorporated by reference, this addition is unnecessary.

Tell us how your recommendation will improve the proposed rule amendments:

Incorporates only the methods required for compliance into the Dangerous Waste Regulations.

Signature: Harold Tilden (via e-mail)

Date: March 4, 2009



**RULE-MAKING PROPOSAL COMMENT FORM**

***Dangerous Waste Regulations, Chapter 173-303 WAC***

Filed on January 15, 2009

First and Last Name: Harold Tilden

Organization or Affiliation: Pacific Northwest National Laboratory

Address: P.O. Box 999, Mail Stop K3-75

City ST Zip: Richland, WA 99352

Indicate if your comment is on the federal or state requirements:

Federal

State

Section No. CTM 1.2 Page No. 2 Citation No. Section 1.2, fourth paragraph

Please state your comment, question, or recommendation:

Reword the last two sentences of this paragraph as follows: "There are two categories of persistent dangerous wastes: halogenated organic compounds (HOC), and polycyclic aromatic hydrocarbons (PAH). HOC and PAH are discussed in Chapter 3."

Explain your concern:

The wording proposed is confusing and implies that there may be more categories of persistent dangerous waste than are discussed.

Tell us how your recommendation will improve the proposed rule amendments:

Clarity in guidance.

Signature: Harold Tilden (via e-mail)

Date: March 4, 2009

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**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

Filed on January 15, 2009

First and Last Name: Harold Tilden

Organization or Affiliation: Pacific Northwest National Laboratory

Address: P.O. Box 999, Mail Stop K3-75

City ST Zip: Richland, WA 99352

Indicate if your comment is on the federal or state requirements:

<input type="checkbox"/>	Federal
<input checked="" type="checkbox"/>	State

Section No.	<u>CTM 1.3</u>	Page No.	<u>2</u>	Citation No.	<u>Section 1.3, first paragraph</u>
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Please state your comment, question, or recommendation:  
Reword the first two sentences of this paragraph to read: "In 2005, EPA deleted use of certain SW-846 test methods to designate dangerous waste. Ecology has decided to continue to require the use of these methods."

Explain your concern:  
The statement "...SW-846 methods were no longer required by RCRA..." is factually incorrect. EPA retained use of SW-846 in the final rule (70 FR 34538, 6/14/2005) for methods that measure "method-defined parameters" (table 3 on page 34547). EPA states on page 34547 that "It is the application of a method in a regulation that determines whether a method is being used to analyze a required method-defined parameter – not simply whether the method is listed in §260.11."

Further, the imposition of SW-846 methods in the manner proposed here actually adds new requirements that did not previously exist. For example, in Section 3.1 of CTM, the third paragraph states "Washington State continues to require SW-846 methods for *all designation analyses* unless otherwise specified." (Emphasis added.) However, in many cases, non-method-defined parameters methods in SW-846 have never been mandatory under either the Federal or State program. Ecology's revisions to WAC 173-303-110 and to CTM make these non-method-defined parameters mandatory. None of Ecology's technical or financial analyses of this change have taken this impact into account.

Ecology should, if they wish to not adopt the Methods Innovation Rule cited, re-institute the specific SW-846 test methods that were deleted in that rule. These methods were clearly identified in the final rule (table 4 on page 34548). Ecology's current approach results in a significant, possibly unanticipated, impact on the regulated community.

We also note that not "All retained SW-846 Test Methods are discussed in Chapter 3." This statement may need to be revised or deleted. See our comments on Chapter 3.

Tell us how your recommendation will improve the proposed rule amendments:  
Minimizes unnecessary impact on the regulated community; clarifies what SW-846 methods remain mandatory under State rules.

Signature: Harold Tilden (via e-mail)

Date: March 4, 2009

# RULE-MAKING PROPOSAL COMMENT FORM

## *Dangerous Waste Regulations, Chapter 173-303 WAC*

Filed on January 15, 2009

First and Last Name: Harold Tilden

Organization or Affiliation: Pacific Northwest National Laboratory

Address: P.O. Box 999, Mail Stop K3-75

City ST Zip: Richland, WA 99352

Indicate if your comment is on the federal or state requirements:

Federal

State

Section No. CTM Chapter Page No. 8 Citation No. Section A.4.2,  
2 3<sup>rd</sup> paragraph

Please state your comment, question, or recommendation:

Revise the last two sentences of this paragraph to read: "Table 3.5.1 (Chapter 3) lists the regulatory thresholds for the 40 TCLP constituents and identifies potential SW-846 methods for each constituent. Other methods may be equally reliable."

Explain your concern:

Ecology's proposed wording makes the use of specific analytical methods for analysis of the TCLP extract mandatory. As noted in our comments at WAC 173-303-110(3)(a) and CTM Section 1.3, this actually imposes new testing method requirements on the regulated community.

Tell us how your recommendation will improve the proposed rule amendments:

Preserve flexibility in use of test methods for compliance into the Dangerous Waste Regulations.

Signature: Harold Tilden (via e-mail)

Date: March 4, 2009

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**RULE-MAKING PROPOSAL COMMENT FORM**

***Dangerous Waste Regulations, Chapter 173-303 WAC***

Filed on January 15, 2009

First and Last Name: Harold Tilden

Organization or Affiliation: Pacific Northwest National Laboratory

Address: P.O. Box 999, Mail Stop K3-75

City ST Zip: Richland, WA 99352

Indicate if your comment is on the federal or state requirements:

Federal

State

Section No. CTM Section 3.1 Page No. 15 Citation No. Section 3.1, third paragraph

Please state your comment, question, or recommendation:  
Delete the first sentence of this paragraph.

Explain your concern:

This sentence requires the use of SW-846 methods for "all designation analyses". As noted in our comments on WAC 173-303-110(3)(a) and CTM Section 1.3, this is inaccurate, misinterprets the intent of the Methods Innovation Rule, and imposes new requirements on the regulated community.

Tell us how your recommendation will improve the proposed rule amendments:  
Preserve flexibility in methods required for compliance with the Dangerous Waste Regulations.

Signature: Harold Tilden (via e-mail)

Date: March 4, 2009

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# RULE-MAKING PROPOSAL COMMENT FORM

## *Dangerous Waste Regulations, Chapter 173-303 WAC*

Filed on January 15, 2009

First and Last Name: Harold Tilden

Organization or Affiliation: Pacific Northwest National Laboratory

Address: P.O. Box 999, Mail Stop K3-75

City ST Zip: Richland, WA 99352

Indicate if your comment is on the federal or state requirements:

Federal

State

Section No. CTM Section 3.7 Page No. 20-21 Citation No. Section 3.7, fourth paragraph

Please state your comment, question, or recommendation:

Delete references to ECOTOX and HSDB.

Explain your concern:

These references have data quality issues, and their mandatory use results in a large number of new wastes being regulated pursuant to the Dangerous Waste Regulations. See our comments on WAC 173-303-100(2), (3) and (5).

Tell us how your recommendation will improve the proposed rule amendments:

Limits use of inaccurate or inapplicable information in designation of state-only dangerous waste.

Signature: Harold Tilden (via e-mail)

Date: March 4, 2009

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# RULE-MAKING PROPOSAL COMMENT FORM

## ***Dangerous Waste Regulations, Chapter 173-303 WAC***

Filed on January 15, 2009

First and Last Name: Harold Tilden

Organization or Affiliation: Pacific Northwest National Laboratory

Address: P.O. Box 999, Mail Stop K3-75

City ST Zip: Richland, WA 99352

Indicate if your comment is on the federal or state requirements:

Federal

State

Section No.	<u>CTM Section</u>	Page No.	<u>29</u>	Citation No.	<u>Section 3.8.8.3</u>
	<u>3.8</u>				

Please state your comment, question, or recommendation:

Delete this section.

Explain your concern:

This guidance is likely to be very difficult to implement for the regulated community. Most polymers contain an additive of some kind. Many of the types of additives described in this section are manufacturer's proprietary information and not included in information provided to buyers of polymer products (e.g. MSDS) due to the low levels present. They also vary from manufacturer to manufacturer and batch to batch. Concentration may also be affected by use of the product. As a result, generators would have to conduct detailed laboratory analyses, or obtain manufacturers' proprietary information, to satisfy Ecology's requirement that "polymers containing these additives *must* be evaluated for persistence", as articulated here and in the introductory text at 3.8.8. [Emphasis added.]

As an example, regulated generators of waste polyvinyl chloride (PVC) pipe would have to determine, from each manufacturer and potentially each batch of pipe procured, which additives (as discussed in this section) the pipe contains. Alternatively, the generator might try to utilize one of the analytical methods in Table 3.8.6 to detect the additives present. For PVC pipe, the only likely method to be applicable is Method 8270C<sup>135</sup>, which Ecology admits is expensive and has limitations<sup>136</sup>. Although neither of these options (obtaining detailed composition information or lab analysis) is practical, Ecology's guidance in this section makes it clear that the generator is no longer allowed to presume that polymers are nonregulated – unless the generator manufactured the polymer and/or has knowledge of the additives.

The test methods provided for determining HOC provided in Section 3.8.4 cannot distinguish between the halogens contained in the additives and those in the polymer. Hence testing in the absence of process knowledge will not determine if the waste is regulated. A generator would have to test the

<sup>135</sup> This method has been updated to 8270D in the February 2007 update to SW-846.

<sup>136</sup> CTM Section 3.9.3.

waste by one or more of the methods in Table 3.8.6; it is not certain that additives would be identified by these methods either, as the additive would have to be identified outright (e.g. some phthalate plasticizers) or as a tentatively identified compound under Method 8270C. A conservative assumption might have to be made, resulting in many polymer wastes not intended to be regulated by this guidance unnecessarily managed as regulated waste. The Decision Tree in Section 3.8.5 appears to make this type of conservative assumption more likely.

As another point, CTM's insistence here that additives "must" be evaluated seems to conflict with WAC 173-303-100(6)(a), where the generator only must evaluate the known constituents or known concentrations of their waste. The regulations do not appear to require that additives be identified in each case.

Finally, Ecology has not explained how it differentiates between HOCs which are chemically bound in the product (where degradation of the polymer would be required to release the HOC to the environment) and those which are physically bound (releasable if the polymer was crushed) in terms of the potential for persistence in the environment. Until a better approach to regulating additives in polymers can be designed, Ecology should delete all added discussions about polymer additives from this document.

Tell us how your recommendation will improve the proposed rule amendments:  
Precludes regulation of low-hazard compounds in designation of state-only dangerous waste.

Signature: Harold Tilden (via e-mail)

Date: March 4, 2009

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# RULE-MAKING PROPOSAL COMMENT FORM

## ***Dangerous Waste Regulations, Chapter 173-303 WAC***

Filed on January 15, 2009

First and Last Name: Barry L. Vedder

Organization or Affiliation: Washington Closure Hanford

Address: 2620 Fermi Avenue

City ST Zip: Richland, WA 99354

Indicate if your comment is on the federal or state requirements:

<input type="checkbox"/>	Federal
<input checked="" type="checkbox"/>	State

Section No.	<u>WAC</u>	Page No.	<u>66, 67</u>	Citation No.	<u>-(2)(b) and –</u>
	<u>173-303-100</u>				<u>(5)(b)(i)</u>

Please state your comment, question, or recommendation:

The proposed requirement to use ECOTOX and HSDB as resources for determining constituent toxicity is inappropriate and should be deleted from WAC 173-303-100.

Explain your concern:

The proposed amendments would add ECOTOX and HSDB to the list of sources for determining toxic categories, apparently subject to the criterion that the most stringent toxic category from these sources would be used for designation purposes. Use of the ECOTOX and HSDB is inappropriate for many constituents. For example, the aquatic toxicity data in ECOTOX is often based on a generic identification of a metal, with no consideration of valence or solubility.

Consider the ECOTOX data for iron. The ECOTOX database shows an iron aquatic LC50 of 0.56 ppm (96 hour test) due to toxicity to carp. (The database does not present any results for salmonids or fathead minnows, the preferred species under WAC 173-303-100(5)). Using this LC50, iron generically would be a toxic category B constituent, and designation as a WTO2 dangerous waste would occur for any waste stream containing greater than 1,000 ppm of iron, including common items such as carbon steel. It is inappropriate for Ecology to base waste designation upon a database that would regulate common steel items as a dangerous waste. In addition, the statewide background concentration of iron in soil is 42,100 ppm (see Ecology's Natural Background Soil Metals Concentration in Washington State, Publication #94-115) – 42 times above the level resulting in designation based on generic application of the ECOTOX aquatic toxicity data. Obviously, with the high statewide background data and given the widespread presence of carp in various state waterways, other factors such as valence and solubility need to be considered in waste designation. The ECOTOX database makes no such distinction.

Generic use of the HSDB results in similar problems. For example, the HSDB shows an aquatic LC50 of 0.015 mg/L for aluminum, making this a category A toxic material. Use of this data would not only



result in EHW designation of aluminum pop cans, but would also result in soil at statewide background levels (37,200 mg/L aluminum) being designated as dangerous waste.

In some cases, the toxicity data in ECOTOX and HSDB could potentially be further evaluated by obtaining the source documents from which the database information is derived; however, these documents are not readily available to the general public, nor is the expertise necessary to evaluate and apply the associated technical information. As a consequence, generators using ECOTOX and the HSDB as mandatory references will be faced with designating various commonly encountered waste streams as dangerous wastes. This point seems to have been neglected in Ecology's *Preliminary Cost Benefit and Least Burdensome Analysis*, which concludes that availability of ECOTOX and HSDB represents a cost savings to generators as opposed to purchase of RTECS. Generators will not realize net cost savings if use of ECOTOX and HSDB results in them having to manage more of their waste as regulated dangerous waste, regardless of the savings associated with not having to purchase RTECS.

The proposed language regarding use of ECOTOX and HSDB as potential resources for toxicity information should be eliminated from WAC 173-303-100.

Tell us how your recommendation will improve the proposed rule amendments:

Eliminating the proposed requirement to use ECOTOX and HSDB toxicity data will avoid the unnecessary regulation of common, relatively non-hazardous materials as dangerous waste.

Signature: Barry L. Vedder

Date: March 4, 2009

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**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

Filed on January 15, 2009

First and Last Name: Chris Wollam

Organization or Affiliation: Fluor Hanford

Address: PO Box 1000 E6-28

City ST Zip: Richland, WA 99352

Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. General Page No. \_\_\_\_\_ Citation No. \_\_\_\_\_

Please state your comment, question, or recommendation:

Ecology proposes not to incorporate the EPA Methods Innovation Rule, to remove the requirement to use SW-846 methods exclusively, but rather to maintain the requirement in the State of Washington to use SW-846 methods essentially exclusively.

Ecology's reason: "Cannot divert already over-extended resources to review methods outside of SW-846.

Explain your concern:

- 1- Ecology states that it provides flexibility to the regulated community via the petition process (WAC 303-173-910 (2). Is Ecology saying that it has the resources to support the formal petition process, but not the resources to support an informal review of an alternate method?
- 2- The burden of proof for a new analytical method lies with the requestor, not Ecology. The generator retains responsibility to properly designate waste per WAC 173-303-070. Therefore, there is a relatively small cost to Ecology.
- 3- Ecology states that it has insufficient resources to adopt the federal Methods Innovation Rule. It would seem that one facet of Ecology's role as the state's hazardous waste experts is a public service role to the regulated public, particularly smaller businesses that clearly cannot afford large staffs of environmental scientists. This role includes keeping abreast of emerging environmental analytical techniques.
- 4- EPA is the author of SW-846 and they are proposing, via regulatory revision, to no longer make the use of SW-846 methods a requirement.

Tell us how your recommendation will improve the proposed rule amendments:

Will enable Washington state businesses to remain competitive with similar businesses in other states where use of all appropriate analytical methods is allowed by EPA. Following the EPA regulations provides an adequate level of protection to the health and safety of Washington residents and the environment.

**Signature:** Chris Wollam

**Date:** March 2, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

Filed on January 15, 2009

First and Last Name: Chris Wollam

Organization or Affiliation: Fluor Hanford

Address: PO Box 1000 E6-28

City ST Zip: Richland, WA 99352

Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. General Page No. \_\_\_\_\_ Citation No. \_\_\_\_\_

Please state your comment, question, or recommendation:

Ecology proposes not to incorporate EPA Methods Innovation Rule, to remove the requirement to use SW-846, but rather to maintain requirement to use SW-846 in the State of Washington.

Ecology's reason: Removal of the requirement to use SW-846 would have a negative impact upon a majority of the regulated community, particularly small businesses not familiar with other methods.

Explain your concern:

- 1- Removing the requirement to use SW-846 does not mandate using another method. Businesses will be able to choose the best method for their application. Choice does not create a burden.

Tell us how your recommendation will improve the proposed rule amendments:

Will enable Washington state businesses to remain competitive with similar businesses in other states by using the most appropriate and economical analytical methods allowed by EPA. Following the EPA regulations provides an adequate level of protection to the health and safety of Washington residents

**Signature:** Chris Wollam

**Date:** March 2, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

Filed on January 15, 2009

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Organization or Affiliation: Fluor Hanford

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City ST Zip: Richland, WA 99352

Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. General Page No. \_\_\_\_\_ Citation No. \_\_\_\_\_

Please state your comment, question, or recommendation:

The Preliminary Cost Benefit & Least Burdensome Analysis (09-04-006) does not appear to meet the intent of *The Administrative Procedures Act* (RCW 34.05.328 (d) & (e) for two areas of revision.

- 1) Incorporation by reference, and requirement for use, of the ECOTOX and HSDB databases in subsections -100(2), (3), & (5)
- 2) Requiring the use of the SW-846 methods throughout Section 173-303 rather than following the federal (EPA) Methods Innovation Rule and allowing the use of additional appropriate methods.

Explain your concern:

Ecology's analysis of costs and benefits (Publication 09-04-006), page 6, values the adoption of this rule as a cost savings to Washington dangerous waste generators of \$140,000 per year. This value presumes that generators would not need to subscribe to one of the RTECS information services if ECOTOX and HSDB were used instead. However, Ecology's proposed rule incorporates RTECS by reference along with ECOTOX and HSDB (subsection 2), and requires RTECS' use along with the other two databases (subsections 3 and 5). Thus most generators are likely to continue subscribing to an RTECS provider (approximately \$500 per year, much less than potential fines and penalties) and no saving would be realized.

In addition to overstating savings, the analysis of costs and benefits completely ignores the significant economic cost of regulating hundreds of new dangerous wastes resulting from widespread use of ECOTOX and HSDB as a regulatory requirement. For instance, ECOTOX gives the aquatic toxicity of copper metal (CASRN 7440-50-8) as 39 µg/L for Coho salmon<sup>137</sup> and 20 µg/L for Chinook salmon<sup>138</sup>. As a result, metallic copper would be a Toxic A constituent and any waste that contains copper metal at a concentration over 0.01% (100 ppm) would designate as a dangerous waste.

However if one reviews the source document you discover that the test was conducted with powdered copper metal. Thus the data is only valid for that form of copper, not the forms commonly dealt with such as wire or piping. However, these documents are not readily available to the general public, nor are the expertise necessary to evaluate and apply the associated technical information. The proposed language regarding use of ECOTOX and HSDB as potential resources for toxicity information should be eliminated from WAC 173-303-100.

With respect to mandating the use of the SW-846 methods: The US EPA has promulgated several changes to the solid waste regulations per the federal Methods Innovation Rule. Chief among these

<sup>137</sup> Mudge et al., "Effect of Varying Environmental Conditions on the Toxicity of Copper to Salmon", ECOTOX reference 45201.

<sup>138</sup> Chapman, G.A., and J.K. McCrady, "Copper Toxicity: A Question of Form", ECOTOX reference 2062.

changes is the removal of the requirement to use the methods of SW-846 exclusively except in those cases where the given method is “the only one capable of measuring the particular property...” The EPA has stated it prefers, “the use of a performance based approach. These changes make it easier and more cost effective to comply with the affected regulations, without compromising human health or environmental protection.” Ecology has chosen not to adopt the EPA language, but rather to adopt language further strengthening the requirement to use SW-846 methods.

Therefore Ecology should meet the intent of *The Administrative Procedures Act* (RCW 34.05.328 (d) & (e) and conduct a thorough Cost Benefit Analysis of its proposed language versus the federal Methods Innovation Rule.

Tell us how your recommendation will improve the proposed rule amendments:

In the words of the US EPA, “These changes make it easier and more cost effective to comply with the affected regulations, without compromising human health or environmental protection.”

**Signature:** Chris Wollam

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**Date:** March 2, 2009

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**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

Filed on January 15, 2009

First and Last Name: Chris Wollam

Organization or Affiliation: Fluor Hanford

Address: PO Box 1000 E6-28

City ST Zip: Richland, WA 99352

Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. -045 Page No. 30 Citation No. -45(4)(d)

Please state your comment, question, or recommendation:

Do not make this addition

Explain your concern:

We do not agree with Ecology's reasoning that SW-846 methods must currently be used in every instance where analysis is required, or that such requirements should be "retained". See detailed comments on Section 110(3)

Tell us how your recommendation will improve the proposed rule amendments:

Provides the flexibility and cost effectiveness of the Federal Methods Innovation Rule.

**Signature:** Chris Wollam

**Date:** March 2, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

Filed on January 15, 2009

First and Last Name: Chris Wollam

Organization or Affiliation: Fluor Hanford

Address: PO Box 1000 E6-28

City ST Zip: Richland, WA 99352

Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. -100 Page No. 66, 67 Citation No. -100(2)(b),(3), & (5)(b)

Please state your comment, question, or recommendation:  
The use of ECOTOX and HSDB as resources for designating constituent toxicity is inappropriate.

Ecology's Small Business Economic Impact Statement (09-04-005) indicates that adoption of this rule is likely to be a savings to Washington State waste generators. In reality adoption of this rule has the potential to cause large amounts of nonhazardous debris (generated by small businesses) to be erroneously classified as Dangerous Waste. This would be a very significant economic impact to small businesses.

Explain your concern:  
ECOTOX: The Pacific Northwest National Laboratory (PNNL) staff reviewed ECOTOX in 2000 and discovered significant data quality problems, including inconsistent reporting of study results. These data quality problems were brought to EPA's attention in 2000, and EPA acknowledged them while stating that they would take some time to be fully addressed. Subsequent checks of the database in 2001 and 2005 revealed that these data quality problems had not been rectified.

PNNL's analysis also revealed that in some cases, the original research would need to be consulted in order to resolve the appropriate data to use. PNNL staff that use ECOTOX data in their research have cautioned against the use of this data without consulting the underlying study(ies) to determine the validity and application of the information presented. EPA's ECOTOX limitations statement includes the following: "You should consult the original scientific paper to ensure an understanding of the context of the data retrieved from the ECOTOX database."<sup>139</sup>

First example: ECOTOX reports the LC50 of copper metal (CASRN 7440-50-8) as 39 µg/L for Coho salmon. Information on the form of the material tested (powdered copper versus copper wire or a penny) is not given in ECOTOX for the study reporting this test endpoint. Reliance on the ECOTOX data alone, without reference to the original research, would designate all three as extremely hazardous waste. Reference to the original research shows that only powdered copper was tested.

Second example: ECOTOX database shows an iron aquatic LC50 of 0.56 ppm (96 hour test) due to toxicity to carp. Using this LC50, iron generically would be a toxic category B constituent, and designation as a WTO2 dangerous waste would occur for any waste stream containing greater than 1,000 ppm of iron, including common items such as carbon steel. In addition, the statewide background concentration of iron in soil is 42,100 ppm (see Ecology's Natural Background Soil Metals Concentration in Washington State, Publication #94-115) – 42 times above the level resulting in designation based on generic application of the ECOTOX aquatic toxicity data.

It is not always possible to acquire a copy of the original research, as ECOTOX does not provide copies

<sup>139</sup> U.S. EPA, ECOTOX database, "[ECOTOX Limitations](#)" website. Viewed 2/6/09.

of copyrighted material and the original publishing journal or other source would have to be contacted. Some data in ECOTOX dates from 1972, and some is from non-English publications. It is impractical to consult individual studies for waste designation in any event. Most waste designators in the state of Washington would likely not be able to review these studies in order to analyze the information, resulting in improper designation of waste.

HSDB: While the HSDB is somewhat more reliable, data quality limitations also exist there which could result in the same designation difficulties as noted above for ECOTOX. For example, the HSDB shows an aquatic LC50 of 0.015 mg/L for aluminum, making this a category A toxic material. Use of this data would not only result in EHW designation of aluminum pop cans, but would also result in soil at statewide background levels (37,200 mg/L aluminum) being designated as dangerous waste.

We are also concerned that the regulation of these metals, and perhaps others, as toxic constituents may result in the need to designate bulky, heterogeneous wastes such as construction debris that have traditionally not been considered to require it. In the extreme, individual items discarded (such as an aluminum beverage can, which HSDB and ECOTOX would designate as WT01, extremely hazardous waste) might cause an entire dumpster load to be regulated due to the mixture rule, WAC 173-303-150(1).

Most waste designators in the state of Washington (many small businesses) do not have the resources of a national laboratory to be able to review these studies in order to analyze the information in ECOTOX and HSDB and apply it properly, resulting in the improper designation of waste.

Tell us how your recommendation will improve the proposed rule amendments:

A re-evaluation of the Small Business Economic Impact considering the potential to incorrectly designate nonhazardous debris as Dangerous Waste would more correctly meet the intent of the Regulatory Fairness Act (RCW 19.85.011)

**Signature:** Chris Wollam

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**Date:** March 2, 2009

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**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

Filed on January 15, 2009

First and Last Name: Chris Wollam

Organization or Affiliation: Fluor Hanford

Address: PO Box 1000 E6-28

City ST Zip: Richland, WA 99352

Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. 110 Page No. 73 Citation No. 110 (3)(a)

Please state your comment, question, or recommendation:

Ecology proposes to incorporate all of the test procedures from the SW-846 manual by reference. Only those methods listed in 40CFR260.11(c) (3) should be incorporated.

Explain your concern:

First Concern: The Administrative Procedures Act RCW 34.05.365 allows incorporation of: "...a code, standard, rule, or regulation that has been adopted by an agency of the United States, or by a generally recognized organization or association..."

SW-846 does not meet the above criteria. It is not a code, standard, rule, or regulation. It is a compilation of test methods, most, but not all of which are considered appropriate for certain analytical needs.

Further, the EPA (Author of SW-846) recognizes in the preamble to the Methods Innovation Rule that "...method selection should be a project-specific selection and therefore cannot recommend or approve any methods – even SW-846 methods – as always being appropriate for any given application...The Agency [EPA] strongly disagrees with commenter's that SW-846 methods should be identified as always appropriate."

Requiring the use of only SW-846 methods will place undue burdens on Washington State businesses, which is in direct opposition to the intention and wording of the federal Methods Innovation Rule, 70 FR 34537, 6/14/05. It is also likely to drive businesses out of the state at a time when the state cannot afford the loss of tax base. The EPA states, "These changes [allowing a variety of testing and monitoring methods] should make it easier and more cost effective to comply with the affected regulations, **without compromising human health or environmental protection.**" [emphasis added by author]

Tell us how your recommendation will improve the proposed rule amendments:

Bring the proposed Washington State Dangerous Waste Regulations in line with the Administrative Procedures Act and the intention and wording of the federal Methods Innovation Rule, 70 FR 34537, 6/14/05.

**Signature:** Chris Wollam

**Date:** March 2, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

Filed on January 15, 2009

First and Last Name: Chris Wollam

Organization or Affiliation: Fluor Hanford

Address: PO Box 1000 E6-28

City ST Zip: Richland, WA 99352

Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. 110 Page No. 75 Citation No. -110(5)

Please state your comment, question, or recommendation:

Do not change the word "may" to "must" with respect to requesting approval for alternate methods.

Explain your concern:

Ecology states that it opposes adopting the federal Methods Innovation Rule on deleting the mandatory use of SW-846 because, "[Ecology] Cannot divert already over-extended resources to review methods outside of SW-846." In the above revision, Ecology makes the use of the petition process mandatory. The petition process WAC-173-303-910 is a very formal and involved process. Is Ecology saying that it has the resources to support the formal petition process to review an alternate method, but not the resources to support an informal review of the same method?

Additionally Ecology indicates in the Preamble that it is their intent to allow permit writers to choose alternate methods. However, requiring them to use the petition process (-910) which results in revising the WAC is likely to inhibit them from including appropriate methods in the activity being permitted. It should be noted that the permit process includes thorough review by Ecology of the activity being permitted. This review provides adequate protection of human health and the environment.

Tell us how your recommendation will improve the proposed rule amendments:

Following the EPA regulations (not mandating SW-846 methods) provides an adequate level of protection to the health and safety of Washington residents and the environment without placing undue burden on Washington State businesses or the Washington Department of Ecology.

**Signature:** Chris Wollam

**Date:** March 2, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

Filed on January 15, 2009

First and Last Name: Chris Wollam

Organization or Affiliation: Fluor Hanford

Address: PO Box 1000 E6-28

City ST Zip: Richland, WA 99352

Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. -110 Page No. 75 Citation No. -110(6)

Please state your comment, question, or recommendation:

Do not add this subsection

Explain your concern:

Reporting of analytical results on a dry weight basis is inappropriate for a number of reasons. First, it appears that if the test method is performed for waste designation purposes, a dry weight measurement will produce an analytical result that is not representative of the waste at the point of the generation when the waste contains water or moisture.

Example: the amount of water in a sample is immaterial to the measurement of pH in soil (SW-846 Method 9045D), as water is added to the sample during analysis. Further, Method 9045D specifies that the sample must be less than 20% water. Ecology has not indicated the regulatory basis for adding a requirement for reporting all results on a dry weight basis, especially since solids and soils can vary in moisture content as a normal part of generation. No explanation of why compensation for variability in water content is necessary is offered. WAC 173-303 already proscribes improper dilution of waste to avoid regulation.

If Ecology wishes to consistently evaluate analytical results for which certification of designation has been requested under the provisions of WAC 173-303-075, Ecology can add this requirement to that section without requiring the vast majority of designations (not submitted to Ecology) include this requirement. Soils and solid materials typically vary in water content as generated. This requirement would add the analysis of water content (Ecology estimate of less than \$25 per sample) to the analytical cost for any soil or solids sample.

Also note that Ecology already has the authority to require any generator to analyze its waste for cause (including for moisture content) at WAC 173-303-070(4).

Note: Ecology's "Background and Rationale for the Update of Biological

Testing Methods ..." issued at the same time as this proposed rule describes Ecology's reasoning for deleting the requirement to determine the moisture content of a sample being tested for toxicity pursuant to the Biological Testing Methods. Wouldn't the same rationale described for deleting the moisture content determination requirement from the Biological Testing Methods also argue against the addition of this requirement in WAC 173-303-110(6).

Also note: This requirement is not mentioned anywhere in the revised Chemical Test Methods document provided with this proposed rule.

Tell us how your recommendation will improve the proposed rule amendments:

Following the EPA regulations provides an adequate level of protection to the health and safety of Washington residents and the environment without placing undue burden on Washington State businesses or the Washington Department of Ecology. Additionally keeping this section of the WAC consistent with the Biological Testing Methods and Chemical Testing Methods should produce more consistent results among the regulated community and therefore reduce the review burden on Ecology.

**Signature:** Chris Wollam

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**Date:** March 2, 2009

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**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

Filed on January 15, 2009

First and Last Name: Chris Wollam

Organization or Affiliation: Fluor Hanford

Address: PO Box 1000, E6-28

City ST Zip: Richland, WA 99352

Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. 140 Page No. 80 Citation No. -140(2)(a)

Please state your comment, question, or recommendation:

Delete the proposed new sentence at the end of this paragraph, "Where...WAC 173-3-3-110(3)(a)" imposing WAC173-303-110(3)(a) in lieu of 40 CFR 260.11

Explain your concern:

Imposing the methods specified in WAC173-303-110(3)(a) is not appropriate in every case. This is the reasoning for the federal Methods Innovation Rule. See comment s on WAC 173-303-110(3)(a)

Tell us how your recommendation will improve the proposed rule amendments:

Provide flexibility to choose the most appropriate methods. Incorporate only those methods into the Dangerous Waste Regulations that are required for compliance.

**Signature:** Chris Wollam

**Date:** March 2, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

Filed on January 15, 2009

First and Last Name: Chris Wollam

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Address: PO Box 1000, E6-28

City ST Zip: Richland, WA 99352

Indicate if your comment is on the federal or state requirements:

Federal  
 State

Section No. 300 Page No. 120 Citation No. -300(5)(f)

Please state your comment, question, or recommendation:

Do not add the last sentence: "Note...WAC173-303-110(3);"

As an alternative, do not include the requirement to use SW-846 methods in subsection -110(3)

Explain your concern:

Does not follow intent or direction of the federal Methods Innovation Rule to allow the regulated community to identify and use "appropriate methods" rather than be restricted to SW-846.

See detailed comments at -110(3)(a).

Tell us how your recommendation will improve the proposed rule amendments:

Will allow businesses and government entities to identify and use the most appropriate methods for dealing with dangerous waste.

**Signature:** Chris Wollam

**Date:** March 2, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
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First and Last Name: Chris Wollam

Organization or Affiliation: Fluor Hanford

Address: PO Box 1000, E6-28

City ST Zip: Richland, WA 99352

Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. 370 Page No. 125 Citation No. -370(4)(b)

Please state your comment, question, or recommendation:

Revise this to read: "Note any discrepancies (as defined in subsection (5)(a) of this section) in the manifest or shipping paper (if the manifest has not been received) on each copy of the manifest or shipping paper."

Explain your concern:

Should note the specific subsection that describes discrepancies; most of the rest of section (5) deals with how to deal with the discrepancies once discovered and is not relevant here. This change also makes the wording consistent with -370(2)(b) and with 40 CFR 264.71(a)(2)(ii) and (b)(2)(ii), with which this wording is intended to be consistent.

Tell us how your recommendation will improve the proposed rule amendments:

Provides consistent wording and correct references to reflect new manifest requirements.

**Signature:** Chris Wollam

**Date:** March 2, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

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First and Last Name: Chris Wollam

Organization or Affiliation: Fluor Hanford

Address: PO Box 1000, E6-28

City ST Zip: Richland, WA 99352

Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. 380 Page No. 129 Citation No. -380(1)(c) & (f)

Please state your comment, question, or recommendation:

Do not add Proposed sentence.

Explain your concern:

The added sentence requires use of the specified methods in WAC 173-303-110(3)(a), as proposed, for all laboratory analyses used in connection with a waste analysis plan. We object to Ecology's approach for mandatory use of the methods specified in -110(3), unless those methods are the only one capable of measuring a particular property (e.g. toxicity characteristic leaching procedure). See our comments on -110(3)(a). In addition, this sentence only allows SW-846 test methods, and not the other test methods incorporated in -110(3)(b)-(h).

Further, the inclusion of this requirement in this section ties the hands of Ecology permit writers in developing appropriate test methods for permitted facilities. In its preamble, Ecology states, "other methods can be used in permits to support facility operations."<sup>140</sup> Inclusion of this sentence here overturns Ecology's stated intention, as permit writers will have no choice but to require -110(3) methods be used in all monitoring, testing, and analytical data.

Tell us how your recommendation will improve the proposed rule amendments:

Follows the intent of the federal Methods Innovation Rule to allow the regulated community to identify and use "appropriate methods". Preserve flexibility in permits; incorporates only the methods required for compliance into the Dangerous Waste Regulations.

**Signature:** Chris Wollam

**Date:** March 2, 2009

<sup>140</sup> Preamble, p. 15, reason for change to 110(1).



**RULE-MAKING PROPOSAL COMMENT FORM**  
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First and Last Name: Chris Wollam

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Address: PO Box 1000, E6-28

City ST Zip: Richland, WA 99352

Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. 400 Page No. 140 Citation No. -400(3) (c) (iii)

Please state your comment, question, or recommendation:

Do not add proposed sentence

Explain your concern:

The added sentence requires use of the specified methods in WAC 173-303-110(3)(a), as proposed, for all laboratory analyses used in connection with a waste analysis plan. We object to Ecology's approach for mandatory use of the methods specified in -110(3), unless those methods are the only one capable of measuring a particular property (e.g. toxicity characteristic leaching procedure). See our comments on -110(3)(a). In addition, this sentence only allows SW-846 test methods, and not the other test methods incorporated in -110(3)(b)-(h).

Tell us how your recommendation will improve the proposed rule amendments:

Follows the intent of the federal Methods Innovation Rule to allow the regulated community to identify and use "appropriate methods". Incorporates only the methods required for compliance into the Dangerous Waste Regulations.

**Signature:** Chris Wollam

**Date:** March 2, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

Filed on January 15, 2009

First and Last Name: Chris Wollam

Organization or Affiliation: Fluor Hanford

Address: PO Box 1000, E6-28

City ST Zip: Richland, WA 99352

Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. 515 Page No. 153 Citation No. -515(3) & (4)

Please state your comment, question, or recommendation:

Do not add the sentence, "In addition, the test methods at WAC 173-303-110(3) must be used."  
Consider "In addition the test methods at WAC 173-303-110(3) are recommended."

Explain your concern:

Mandatory use of the methods specified in -110(3) are not recommended unless the specified methods are the only methods that can measure a specific property, and even then, newer and better methods may be imminent. The federal Methods Innovation Rule was passed to provide more flexibility for a performance based approach to choosing the best methods for a given application.

Providing flexibility to identify and use the best method is particularly important in this section on management of used oil. In the case of commercial, large-scale participant, any unnecessary increase in costs can decrease the economic competitiveness of Washington businesses. Additionally any requirements that make this activity more expensive or more difficult have the potential for ultimately reducing participation by the public and be counter-productive to protection of human health and environmental protection. See additional comments on -110(3)(a).

Tell us how your recommendation will improve the proposed rule amendments:

Borrowing words from the EPA, "...a performance based approach...should make it easier and more cost effective to comply with the affected regulations, without compromising human health or environmental protection."

**Signature:** Chris Wollam

**Date:** March 2, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

Filed on January 15, 2009

First and Last Name: Chris Wollam

Organization or Affiliation: Fluor Hanford

Address: PO Box 1000, E6-28

City ST Zip: Richland, WA 99352

Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. 515 Page No. 155 Citation No. -515(8)

Please state your comment, question, or recommendation:

Do not add, "except that the test methods at WAC 173-303-110(3)(a) must be used."  
Consider "the test methods at WAC 173-303-110(3) are recommended."

Explain your concern:

Mandatory use of the methods specified in -110(3) are not recommended unless the specified methods are the only methods that can measure a specific property, and even then, newer and better methods may be imminent. The federal Methods Innovation Rule was passed to provide more flexibility for a performance based approach to choosing the best methods for a given application.

Providing flexibility to identify and use the best method is particularly important in this section on management of used oil. In the case of commercial, large-scale participant, any unnecessary increase in costs can decrease the economic competitiveness of Washington businesses. Additionally any requirements that make this activity more expensive or more difficult have the potential for ultimately reducing participation by the public and be counter-productive to protection of human health and environmental protection. See additional comments on -110(3)(a).

Tell us how your recommendation will improve the proposed rule amendments:

Borrowing words from the EPA, "...a performance based approach...should make it easier and more cost effective to comply with the affected regulations, without compromising human health or environmental protection."

**Signature:** Chris Wollam

**Date:** March 2, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

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First and Last Name: Chris Wollam

Organization or Affiliation: Fluor Hanford

Address: PO Box 1000, E6-28

City ST Zip: Richland, WA 99352

Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. 515 Page No. 156 Citation No. -515(9)

Please state your comment, question, or recommendation:

Do not add "except that the test methods at WAC 173-303-110(3) must be used."  
Consider "the test methods at WAC 173-303-110(3) are recommended."

Explain your concern:

Mandatory use of the methods specified in -110(3) are not recommended unless the specified methods are the only methods that can measure a specific property, and even then, newer and better methods may be imminent. The federal Methods Innovation Rule was passed to provide more flexibility for a performance based approach to choosing the best methods for a given application. Providing flexibility to identify and use the best method is particularly important in this section on management of used oil. In the case of commercial, large-scale participant, any unnecessary increase in costs can decrease the economic competitiveness of Washington businesses. Additionally any requirements that make this activity more expensive or more difficult have the potential for ultimately reducing participation by the public and be counter-productive to protection of human health and environmental protection. See additional comments on -110(3)(a).

Tell us how your recommendation will improve the proposed rule amendments:

Borrowing words from the EPA, "...a performance based approach...should make it easier and more cost effective to comply with the affected regulations, without compromising human health or environmental protection."

**Signature:** Chris Wollam

**Date:** March 2, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

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First and Last Name: Chris Wollam

Organization or Affiliation: Fluor Hanford

Address: PO Box 1000, E6-28

City ST Zip: Richland, WA 99352

Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. 515 Page No. \_\_\_\_\_ Citation No. -515(10) & (11) (b)

Please state your comment, question, or recommendation:

Do not add the requirement to use the test methods at WAC 173-303-110(3).  
Consider recommending that the test methods at WAC 173-303-110(3) be used.

Explain your concern:

Mandatory use of the methods specified in -110(3) are not recommended unless the specified methods are the only methods that can measure a specific property, and even then, newer and better methods may be imminent. The federal Methods Innovation Rule was passed to provide more flexibility for a performance based approach to choosing the best methods for a given application.

Providing flexibility to identify and use the best method is particularly important in this section on management of used oil. In the case of commercial, large-scale participant, any unnecessary increase in costs can decrease the economic competitiveness of Washington businesses. Additionally any requirements that make this activity more expensive or more difficult have the potential for ultimately reducing participation by the public and be counter-productive to protection of human health and environmental protection. See additional comments on -110(3)(a).

Tell us how your recommendation will improve the proposed rule amendments:

Borrowing words from the EPA, "...a performance based approach...should make it easier and more cost effective to comply with the affected regulations, without compromising human health or environmental protection."

**Signature:** Chris Wollam

**Date:** March 2, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
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First and Last Name: Chris Wollam

Organization or Affiliation: Fluor Hanford

Address: PO Box 1000, E6-28

City ST Zip: Richland, WA 99352

Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No.	610	Page No	Citation No.
		190 & 194	-610(6) & (11)

Please state your comment, question, or recommendation:

Delete the requirement to use an independent qualified registered professional engineer and replace it with qualified professional engineer.

Explain your concern:

Ecology has not adopted Federal rule changes from the burden reduction final rule (Federal Register April 4, 2006) which allow qualified Professional Engineers (PEs) employed by the same company to certify several regulatory-required reports (e.g. certification of closure and post closure). Ecology contends that to do so would "lessen the current level of human and environmental protection that reduce access to available information or that risk a conflict of interest". We do not believe the use of licensed, in-house PEs has the potential to lessen the level of protection, and in some cases may actually increase the level of protection. We agree with EPA's evaluation of the use of in-house PEs (71 FR 16861, 4/6/06, at p. 16869):

"We believe that a professional engineer, regardless of whether he/she is independent is able to give fair and technical review because of the programs established by the state licensing boards. It is not clear to us that an in-house engineer faces a greater economic temptation than an independent engineer seeking to cultivate an ongoing relationship with a client. This is a central mission of state licensing boards. If certifications are provided when the facts do not warrant certification, the professional engineer is subject to penalties, including the loss of license and the possibility of fines. Professional engineers employed by a facility are more familiar with its own particular situation and are in a position to provide more on-site review and oversight of the activity being certified."

Use of independent PEs for this purpose often results in more time and cost to the regulated community. For instance, independent PEs must first be oriented to the facility as well as the specific item(s) they are expected to certify, and they must provide on-site oversight that may be redundant to facility PEs providing oversight of the same activity (e.g. construction).

Tell us how your recommendation will improve the proposed rule amendments:

Follows the intent of the federal Methods Innovation Rule and per the EPA"... without compromising human health or environmental protection."

**Signature:** Chris Wollam

**Date:** March 2, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

Filed on January 15, 2009

First and Last Name: Chris Wollam

Organization or Affiliation: Fluor Hanford

Address: PO Box 1000, E6-28

City ST Zip: Richland, WA 99352

Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. 640 Page No. 205 Citation No. 640(1)(b)

Please state your comment, question, or recommendation:

Revise the last sentence, "...WAC 173-303-110(3) (a) must be used." To: "...may be used".

Explain your concern:

The US EPA has determined that analytical methods other than those in SW-846 can provide equally good results and therefore the same level of protection of the environment, and human health and safety. Allowing these additional methods to be used enables Washington State businesses to choose the best methods for their application and compete fairly with businesses in other states.

Tell us how your recommendation will improve the proposed rule amendments:

The proposed rewording will keep the WAC more consistent with EPA regulations.

**Signature:** Chris Wollam

**Date:** March 2, 2009

**RULE-MAKING PROPOSAL COMMENT FORM**  
***Dangerous Waste Regulations, Chapter 173-303 WAC***

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First and Last Name: Chris Wollam

Organization or Affiliation: Fluor Hanford

Address: PO Box 1000, E6-28

City ST Zip: Richland, WA 99352

Indicate if your comment is on the federal or state requirements:  Federal  
 State

Section No. 690; 691 Page No. 74; 75 Citation No. -690 (3); -691(3)

Please state your comment, question, or recommendation:

Do not add proposed subsections.

Explain your concern:

The added sentences requires use of the specified methods in WAC 173-303-110(3)(a), as proposed, for all laboratory analyses used to determine whether a waste is subject to Subparts AA and BB. We object to Ecology's approach for mandatory use of the methods specified in -110(3), unless those methods are the only one capable of measuring a particular property (e.g. toxicity characteristic leaching procedure). See our comments on -110(3)(a). In addition, this sentence only allows SW-846 test methods [as referenced in subsection (3)(a)], and not the other test methods incorporated in -110(3)(b)-(h). Some of these test methods are incorporated at -110(3) for the express purpose of meeting the requirements of 40 CFR 264 Subpart AA and BB, incorporated by reference; see -110(3)(g)(i) through (viii). All of these requirements have been preserved in 40 CFR 260.11; hence, if Ecology intends to preserve the methods of compliance with the requirements incorporated by reference, this addition is unnecessary.

Tell us how your recommendation will improve the proposed rule amendments:

Follows the intent of the federal Methods Innovation Rule to allow the regulated community to identify and use "appropriate methods". Incorporates only the methods required for compliance into the Dangerous Waste Regulations.

**Signature:** Chris Wollam

**Date:** March 2, 2009