



DEPARTMENT OF
ECOLOGY
State of Washington

**Concise Explanatory Statement
Chapter 173-303 WAC
Dangerous Waste Regulations**

*Summary of rulemaking and
response to comments*

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Publication and Contact Information

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Concise Explanatory Statement
Chapter 173-303 WAC
Dangerous Waste Regulations

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

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Table of Contents

Introduction.....1
Reasons for Adopting the Rule.....2
Differences Between the Proposed Rule and Adopted Rule3
List of Commenters and Response to Comments.....7

Introduction

The purpose of a Concise Explanatory Statement is to:

- Meet the Administrative Procedure Act (APA) requirements for agencies to prepare a Concise Explanatory Statement (RCW 34.05.325).
- Provide reasons for adopting the rule.
- Describe any differences between the proposed rule and the adopted rule.
- Provide Ecology's response to public comments.
- This Concise Explanatory Statement provides information on The Washington State Department of Ecology's (Ecology) rule adoption for:

Title: Dangerous Waste Regulations
WAC Chapter(s): 173-303
Adopted date: January 28, 2019
Effective date: April 28, 2019

To see more information related to this rulemaking or other Ecology rulemakings please visit our website: <https://ecology.wa.gov/About-us/How-we-operate/Laws-rules-rulemaking>.

Reasons for Adopting the Rule

Chapter 173-303 Washington Administrative Code (WAC), Dangerous Waste Regulations set standards for the safe management of dangerous wastes.

Chapter 173-303 WAC implements Chapter 70.105 RCW and Subtitle C of the federal Resource Conservation and Recovery Act (RCRA). Chapter 70.105 RCW gives the Department of Ecology (Ecology) Hazardous Waste program authority to adopt regulations for dangerous waste management. Ecology has amended specific sections of the dangerous waste regulations to incorporate new federal hazardous waste rules, including but not limited to:

Conditional Exclusions for Solvent-Contaminated Wipes

Revisions to the Definition of Solid Waste

Revisions to the Export Provisions of the Cathode Ray Tube (CRT) Rule.

Hazardous Waste Generator Improvements Rule

Hazardous Waste Export-Import Revisions

Hazardous Waste Electronic Manifest Rule

Amendments also include several state-initiated technical and editorial corrections and clarifications. Changes include, but are not limited to:

- Changes to the PCB waste exclusion to reduce duplicative regulation of state-only PCB wastes also regulated under the Toxic Substance Control Act 40 CFR Part 760.
- Above-ground signage requirements for underground dangerous waste tanks to increase safety awareness.

Why are we doing this rulemaking and what do we intend to accomplish?

We are required to adopt certain federal hazardous waste rules to maintain our authorization by the Environmental Protection Agency (EPA) and remain consistent with EPA regulations. We adopted some optional EPA rules to provide regulatory relief or make the regulations easier to comply with.

Required federal hazardous waste rules we must adopt include:

- Electronic manifest rule
- Revisions to import-export rules and revisions to the export provision of the cathode ray tube rule, which improve the transport and tracking of dangerous waste
- Definition of solid waste rule, which helps ensure that dangerous waste is legitimately recycled
- Parts of the generator improvement rule, which fix regulatory gaps and make corrections to federal hazardous waste regulations

To make more user-friendly regulations and provide flexibility in managing waste, we are adopting these optional rules:

- Parts of the generator improvement rule
- Solvent wipes rule, which allows more flexibility to safely manage dangerous waste solvent wipes while reducing regulatory requirements

Differences Between the Proposed Rule and Adopted Rule

RCW 34.05.325(6)(a)(ii) requires Ecology to describe the differences between the text of the proposed rule as published in the *Washington State Register* and the text of the rule as adopted, other than editing changes, stating the reasons for the differences.

There are some differences between the proposed rule filed on August 9, 2018 and the adopted rule filed on January 28, 2019. Ecology made these changes for all or some of the following reasons:

- In response to comments we received.
- To ensure clarity and consistency.
- To meet the intent of the authorizing statute.

The following content describes the changes and Ecology’s reasons for making them. The black underline and strikethrough shows what Ecology proposed August 9, 2018. The red underline and strikethrough shows how the text has changed between the proposed rule and the adopted rule.

1. WAC 173-303-019(4)(c).
Reason for change: Internal reference corrected.
2. WAC 173-303-019(4)(c)(ii).
Reason for change: Correct citation numbers.
3. WAC 173-303-040. “Authorized representative.”
Reason for change: We included “an employee of the company of equivalent responsibility” as another example of who qualifies as an authorized representative.
4. WAC 173-303-040. “Electronic manifest system.”
Reason for change: Correct typographical error.
5. WAC 173-303-040. “Formal written affiliation agreement.”
Reason for change: Correct spelling.
6. WAC 173-303-040. “Halogenated organic compounds.”
Reason for change: Correct reference title.
7. WAC 173-303-040. “Satellite accumulation area.”
Reason for change: Changed “ninety-day accumulation area” to “central accumulation area” to align with the new definition for central accumulation area and maintain consistent definitions.
8. WAC 173-303-070(1)(b). The procedures in this section are applicable to any person who generates, or discovers on their site, a solid waste, as defined in WAC 173-303-016((,)) (including recyclable materials) that is not exempted or excluded by this chapter, or by the department, or who discovers an unknown material, or who is directed to or must further designate waste by subsection (4) or (5) of this section. Any person who

generates ~~or discovers~~ a solid waste ~~on their site or discovers an unknown material~~ must ~~determine~~ make an accurate determination if that waste ~~or unknown material~~ is a dangerous waste in order to ensure wastes are properly managed according to applicable dangerous waste regulations. A dangerous waste determination is made by following the designation procedures set forth in subsection (3) of this section. Any person who determines by these procedures that their waste is designated DW or EHW is subject to all applicable requirements of this chapter.

Reason for change: Enforcement issues noted for proposed language which required any person discovering unknown materials to immediately begin designation. Language is revised to clearly indicate this rule applies to solid waste discovered on a generators site or property.

9. WAC 173-303-070(3)(a). The dangerous waste designation for each solid waste must begin ~~immediately promptly~~ at the point of waste generation or upon the discovery of a solid waste ~~on their site unknown material~~.

Reason for change: Due to comments and confusion about the meaning of “immediately”, the word “promptly” is used. Also removed “unknown material” for reasons discussed above in number eight.

10. WAC 173-303-071(3)(s)(xiii) and 173-303-395(6).

Reason for change: These cites address hazard labeling of containers and tanks. For consistency with RCRA hazard labeling regulations and to align with changes to other related citations in the amended state rules, the word “major” is deleted.

11. WAC 173-303-110(7).

Reason for change: Corrected typographical error.

12. WAC 173-303-170(2)(a)(ii)(C) and 170(2)(a)(iii)(C).

Reason for change: Correct internal reference.

13. WAC 173-303-(2)(b)(iv) and 170(5)(c).

Reason for change: Treatment by generator exception language mistakenly occurs at both (2)(b)(iv) and at 170(5)(c). Corrected by adding “... in accumulation tanks, containers and containment buildings...” at the end of paragraph (2)(b)(iv) and deleting 170(5)(c).

14. WAC 173-303-171(1)(e)(ix)(B), 173-303-172(9)(a)(ii), 173-303-173(3)(f)(i)(B), 173-303-174(1)(f)(i), 173-303-200(7)(a)(ii) and 173-303-6330(3)(a). With the words “Dangerous Waste” or “Hazardous Waste.” Except for containers one gallon (or four liters) and under, where the lettering must be label or marking is legible from a distance

of twenty-five feet or the lettering size is a minimum of one-half inch in height.

Reason for change: In order to address physical problem of attaching a label to small containers where the words “hazardous waste” (or the words “Episodic Hazardous Waste”) are ½ inch in size, Ecology is giving an exception to the labeling size rule for containers four liters and under. We are also clarifying that the lettering size requirement only applies to the size of the letters in “hazardous waste”, and not to all the wording that may be on the hazardous/dangerous waste label.

15. WAC 173-303-171(1)(e)(ix)(C)(II), 173-303-172(9)(a)(iii)(A), 173-303-172(9)(a)(iii)(B), 173-303-173(3)(f)(i)(C)(II), 173-303-174(1)(f)(ii)(B), 173-303-200(7)(a)(iii)(B), 173-303-630(3)(b)(ii). Include descriptive word(s) and/or pictogram(s) that identifies the hazards associated with the contents of the containers for the public, emergency response personnel, and employees; for containers one gallon (or four liters) and under the label, marking or lettering can be appropriate for the size of the container.
Reason for change: In order to address physical problem of attaching a hazard label to small containers with ½ inch high hazard word (s), we are allowing containers four liters and under to use labels, markings or lettering that are appropriate to the size of the container.
16. WAC 173-303-172(12)(d)(iii)(C).
Reason for change: Minor clarification replacing “hazardous” waste with “dangerous” waste.
17. WAC 173-303-173(3)(d). Annual report. The small quantity generator must submit an annual report in accordance with WAC 173-303-220 covering all dangerous waste generated during the calendar year of the episodic event.
Reason for change: Proposed episodic generator rule language required SQGs to report all dangerous wastes generated during the calendar year, potentially creating a new recordkeeping requirement for SQGs. To align with the RCRA episodic generation rule and to make compliance with the state rule easier, the wording was revised to require only wastes generated during the episodic event to be annually reported.
18. WAC 173-303-173(3)(f)(vii).
Reason for change: Correct grammatical error.
19. WAC 173-303-201(7)(f). (f) A facility possessing twenty-four-hour response capabilities may seek a waiver from the authority having jurisdiction (AHJ) over the fire code with the facility's locality as far as needing to make arrangements with the local fire department as well as any other organization necessary to respond to an emergency, provided that the waiver is documented in the generator's operating record.
Reason for change: By oversight, proposed rules did not include a RCRA rule providing LQGs with 24-hour emergency response capabilities a waiver from the requirement to make arrangements with the local fire department. Ecology is adding this waiver to the final rules as a new paragraph (f).
20. WAC 173-303-201(9)(a). Each large quantity generator must have a contingency plan at their facility for use in emergencies or any sudden or nonsudden releases which threaten human health and the environment. If the generator has already prepared a spill prevention control and countermeasures (SPCC) plan in accordance with 40 C.F.R. Part 112, or some other emergency or contingency plan, they need only amend that plan to incorporate dangerous waste management provisions that are sufficient to comply with the requirements of this section. The large quantity generator may develop one contingency plan that meets all regulatory requirements. Ecology recommends that the plan be based on the National Response Team's Integrated Contingency Plan Guidance

("One Plan").

~~When modification are made to nondangerous waste (non-Hazardous Waste Management Act or nondangerous waste regulation) provisions in an integrated contingency plan, the change do not trigger the need for a dangerous waste permit modification.~~

Reason for change: By oversight during rule drafting, language in section 350 that only applies to TSD activity was carried over to the LQG contingency plan requirements in the above citation. The last sentence pertaining to permit modifications is removed.

21. WAC 173-303-201(11)(b)(iv).

Reason for change: Correct typographical error.

22. WAC 173-303-201(14)(j).

Reason for change: Correct internal reference.

23. WAC 173-303-210(3)(c).

Reason for change: Correct typographical error.

24. WAC 173-303-220(2)(e)(ii).

Reason for change: Correct grammatical error.

25. WAC 173-303-630(3)(b).

Reason for change: Correct grammatical error.

26. WAC 173-303-64610(4).

Reason for change: Correct typographical error.

List of Commenters and Response to Comments

Description of comments:

The comments and topics have been arranged topically. Under each topic area you will find the original comments verbatim, extracted from the submitted comment letters. Most of those comments are summarized or paraphrased in Ecology’s responses. You will notice that our responses to more complex topics are further divided into sub issues, all related to the main topic.

Commenter identification:

Ecology accepted comments starting August 9, 2018 until October 5, 2018. We received these comments during the public comment period (RCW 34.05.325(6)(a)(iii)). Commenters can find their comments and the response by scrolling to the topic next to their name.

Table 1. List of commenter names, topics, and comment numbers

Affiliation	Commenter Name	Topic of comment	Comment number
Individual	Gallucci, Douglas	Container and tank labels	I-6-1
Individual	Gallucci, Douglas	Designation of unknowns and point of generation	I-6-2
Individual	Gallucci, Douglas	Hazard labels	I-6-3
Individual	Johnson, Donald	Container and tank labels- legibility	I-1-1
Individual	Johnson, Donald	Regulatory analysis	I-1-2
Individual	Kohler, Joseph	Manifests	I-3-1
Individual	Kohler, Joseph	Manifests	I-4-1
Individual	Lamm, Ashley	Container and tank labels- legibility	I-2-1
Individual	Rosenzweig, Elizabeth	Container and tank labels- legibility	I-5-1

Concise Explanatory Statement: 173-303 WAC – Dangerous Waste Regulations

Affiliation	Commenter Name	Topic of comment	Comment number
Business	Titus, Elizabeth	Container and tank labels- legibility	B-2-1
CH2MHILL Plateau Remediation Company	Martin, Paul	Conditions for exemption	B-3-4
CH2MHILL Plateau Remediation Company	Martin, Paul	Authorized representative	B-3-3
CH2MHILL Plateau Remediation Company	Martin, Paul	Solvent-contaminated wipes	B-3-1
CH2MHILL Plateau Remediation Company	Martin, Paul	Container inspection	B-3-6 , B-3-7
CH2MHILL Plateau Remediation Company	Martin, Paul	Hazard labels	B-3-5
CH2MHILL Plateau Remediation Company	Martin, Paul	Satellite Accumulation area	B-3-8
CH2MHILL Plateau Remediation Company	Martin, Paul	Weekly inspections	B-3-2
Eospace Inc	Booher, Dan	Unclassified	B-1-1
Stericycle	Hoboy, Selin	Hazard labels	B-4-1
The Boeing Company	Shestag, Steve	Episodic generation	B-5-4
The Boeing Company	Shestag, Steve	Designation of unknowns and point of generation	B-5-7
The Boeing Company	Shestag, Steve	Contingency plans and emergency response	B-5-5 , B-5-6
The Boeing Company	Shestag, Steve	Unclassified	B-5-1

Concise Explanatory Statement: 173-303 WAC – Dangerous Waste Regulations

Affiliation	Commenter Name	Topic of comment	Comment number
The Boeing Company	Shestag, Steve	Hazard labels	B-5-3
The Boeing Company	Shestag, Steve	Regulatory analysis	B-5-2
Organization	Ellefson, Mark	Container and tank labels	O-1-1
Seattle City Light	Lewis, Aurana	Hazard labels	O-3-2
Seattle City Light	Lewis, Aurana	Designation of unknowns and point of generation	O-3-1
Seattle City Light	Lewis, Aurana	Regulatory analysis	O-3-3
Whitworth University	Diaz, Joy	Container and tank labels	O-2-2
Whitworth University	Diaz, Joy	Designation of unknowns and point of generation	O-2-1 , O-2-3
Government Agency	Tomren, Scott	Container and tank labels	A-1-2
Government Agency	Tomren, Scott	Designation of unknowns and point of generation	A-1-1
US Department of Energy	McKarns, Anthony	Container and tank labels	A-2-7 , A-2-9 , A-2-14
US Department of Energy	McKarns, Anthony	Designation of unknowns and point of generation	A-2-16
US Department of Energy	McKarns, Anthony	Conditions for exemption	A-2-2
US Department of Energy	McKarns, Anthony	Authorized representative	A-2-3
US Department of Energy	McKarns, Anthony	Solvent contaminated wipes	A-2-4

Concise Explanatory Statement: 173-303 WAC – Dangerous Waste Regulations

Affiliation	Commenter Name	Topic of comment	Comment number
US Department of Energy	McKarns, Anthony	Weekly inspections	A-2-5
US Department of Energy	McKarns, Anthony	Contingency plans and emergency response	A-2-11
US Department of Energy	McKarns, Anthony	Unclassified	A-2-1
US Department of Energy	McKarns, Anthony	Container inspection	A-2-12 , A-2-13 , A-2-17
US Department of Energy	McKarns, Anthony	Hazard labels	A-2-8 , A-2-10
US Department of Energy	McKarns, Anthony	Satellite Accumulation area	A-2-6 , A-2-15
Washington State University	Sampson, Jason	Container and tank labels-legibility	A-3-1

Comments and Responses:

Comments and Responses are grouped together and organized by topic. Under each topic heading you will find all the comments the Washington State Department of Ecology (Ecology) received for that topic followed by Ecology's single response (or multiple responses for complicated topics with several sub issues) to all the comments on that topic.

Ecology used the following topics to group comments together:

- [Episodic generation](#)
- [Container and tank labels - legibility](#)
- [Designation of unknowns and point of generation](#)
- [Conditions for exemption](#)
- [Authorized representative](#)
- [Contingency plans and emergency response](#)
- [Manifests](#)
- [Solvent-contaminated wipes](#)
- [Unclassified](#)
- [Container inspection](#)
- [Hazard labels](#)
- [Satellite accumulation area](#)
- [Weekly inspections](#)
- [Regulatory analysis](#)

Comments on episodic generation

Commenter: Steve Shestag - Comment B-5-4

Episodic Generation Event Annual Report, proposed section 173-303-173(3)(d) While the federal generator improvements rule requires the Very Small Quantity Generator (SQG in Washington) to maintain records associated with the episodic event(s), the proposed Washington rule adds a requirement for an annual report covering dangerous waste generated during the calendar year of the episodic event. The possibility of and timing of an episodic event will often not be known at the beginning of the year (especially those episodic events caused by a spill cleanup). This proposed annual reporting requirement would require generators to produce detailed records for waste generated prior to the episodic event. Such records may or may not exist, since there is no requirement for a (Washington) SQG to record dangerous waste generated each month. The only requirement is that the generator ensure that the amounts generated or stored not exceed the SQG limits in WAC 173-303-171 (a) and (c). For many SQGs, the processes that generate dangerous waste are inherently so small that the generator can maintain and demonstrate compliance with SQG limits without detailed recordkeeping. The proposed rule would create a recordkeeping requirement for waste volumes generated where none otherwise exists, if there is any possibility that SQG might utilize the episodic event provisions. Furthermore, waste generated after an episodic event would also be subject to inclusion in the annual report. As for the more significant volume of waste generated during an episodic event,

both the federal rule and the Washington proposal requires records and notifications to the Department of Ecology. In short, the annual report of waste generation triggered by episodic generation at proposed section would be an unnecessary Washington addition to the federal episodic generation rules, which are already complex for both generators and the agency.

Response to episodic generation

Commenter: Steve Shestag - Comment B-5-4 The commenter is concerned with the proposed rule requiring SQGs (who choose to use the optional episodic generation exemption) to submit an annual report covering all dangerous waste generated during the calendar year of the episodic event. They state that such records may or may not exist, since there is no requirement for a (Washington) SQG to record dangerous waste generated each month. Further, the proposed rule creates a recordkeeping requirement where none otherwise exists.

The commenter correctly states the proposed episodic generation rules require SQGs to submit an annual report for all dangerous wastes generated for the year. This episodic generation annual report requirement is a state-only rule, since the federal rule only requires information about start and end date of the event and types and quantities of dangerous waste expected to be generated. Further, Ecology agrees that existing regulations do not ordinarily require SQGs to submit annual reports with detailed waste generation information. SQGs with a RCRA ID number are required to submit annual report updating their site identification information. This submittal doesn't include detailed information about types and quantities of each waste stream. An exception to this norm happens when SQGs generate special wastes and they need to submit detailed annual reports about types and quantities of special wastes generated and disposed. One reason Ecology added this annual reporting rule is to support pollution prevention efforts, particularly for the larger volumes of waste generated from an episodic event. Another reason is to align with new generator improvement rules requiring any site that becomes a LQG for at least one month out of the year to submit an annual report for all wastes generated during the calendar year.

Ecology has decided not to require SQGs to submit an annual reporting for all wastes generated during the entire calendar year. This decision is based on comments received regarding lack of complete records about all wastes generated by SQGs. Also, Ecology wants to support use of the episodic generation rule while not make it more difficult to comply. We are keeping the requirement that SQGs submit an annual dangerous waste report giving details about wastes generated during the episodic event. This reporting information is useful for pollution prevention planning purposes, and increases agency awareness of types and quantities of potentially large volumes of waste.

Comments on container and tank labels - legibility

Commenter: Mark Ellefson - Comment O-1-1

The Pacific Northwest National Laboratory (PNNL) objects to the proposed requirements for size and legibility of the "dangerous waste" and major risk labeling on containers [WAC 173-303-174(1)(f)(i) and (ii), 200(7), 630(3)(a) and (b) and various other citations]. Our concerns relate particularly to labeling of small waste containers. As a large research institution, PNNL generates several thousand containers of dangerous waste from laboratory research each year, the

majority being 4 liters or less in size. Use of small accumulation containers is necessary to segregate incompatible wastes and to comply with fire code requirements. In almost all situations it not possible to configure labels that meet Ecology's proposed size and readability requirements for these small waste accumulation containers.

We maintain that the proposed label size requirement is both unnecessary and will impose significant cost and operational impacts in laboratory settings. We understand that it may be a trivial matter to place large labels on drums or tanks, but that is not the case for laboratories.

The label size requirements are unnecessary in research laboratories for two primary reasons. First, it is almost never the case that waste accumulation containers are even visible from 25 feet. Research laboratories are designed with casework and storage cabinets that typically allow a line of sight to waste accumulation containers of only a few feet. Second, Ecology's stated purpose for large labels is to warn the public, staff and emergency responders of the hazards they might encounter. In our research laboratories (and we conjecture most other laboratory institutions as well) the public is not allowed free access. Even PNNL staff are granted access only after receiving training regarding the hazards present in the laboratory. Similarly, central accumulation areas and TSD facilities are posted with signs warning unauthorized personnel to keep out. These controls make the public and staff warning function moot. In terms of warning emergency responders, waste accumulation containers represent only a small fraction of the chemical hazards present in the laboratory. The laboratory's inventory of chemical reagents is generally much larger in volume and present more significant hazards than waste accumulation containers in an emergency situation. Laboratories utilize inventory databases and room postings to communicate hazard information for staff and emergency responders; labeling small containers with large warnings will not provide new or better information in an emergency response situation.

Ecology's proposed label size and legibility requirements will have significant cost and operational impacts that outweigh any perceived benefits. In the responsiveness summary to the preliminary draft rules, Ecology proposed placing small containers in larger containers in order to meet the label size requirements. The cost of purchasing several thousand larger, chemically-compatible containers every year is very significant. Of equal importance, these larger containers will occupy much-needed space in laboratories with limited storage capacity. Ecology stated in the responsiveness summary that these larger containers will take "minimal space;" we maintain that using containers of sufficient size to accommodate labels that are visible from 25 feet (particularly for waste that has several major risks) will have significant storage impacts.

In the responsiveness summary to the preliminary draft rule, Ecology also suggested the use of the alternative requirements for academic laboratories. Please note that PNNL and many other research laboratories are not eligible for this relief.

In summary, PNNL requests that Ecology not adopt the proposed container label size and legibility requirements as written. Our preference is that Ecology adopt the language EPA

adopted in the Federal Generator Improvements Rule. As an alternative, Ecology could exempt containers that are 20 liters or less in volume from the size and legibility requirement.

Commenter: Douglas Gallucci - Comment I-6-1

Hazard and dangerous waste labeling (171(1)(e)(ix), 172(8)(b)(i-ii), 172(9)(a) and (b), 173(3)(d)(i-ii), 173(4)(d)(i-ii), 174(1) (f)(i-ii), 200(6)(b), 200(7)(a) and b)(ii), 200(13)(a)(iv)(C), 240(6)(i))

The proposed rule as written adds the additional requirement that hazard labels be

- Be legible and recognizable to the general public from 25 feet away, or have lettering at least a ½" in height.
- Be understandable to employees, emergency response personnel, the public and visitors.

In defense of these new more stringent requirements (per WDOE publication 18-04- 021) it is stated that "It is not clear how prevalent inadequate labels that would need to be replaced are, the number of those labels at facilities, and the degree of updating or replacement needed to bring labels into compliance" yet even though they do not have a grasp of the potential impact they are confident that the change would only result in "one-time additional labeling costs for some facilities with inadequate labels." Currently, none of the hazardous waste labels at the UW or any of its offsite facilities, clinics or Hospitals would meet this standard. We may have several thousand labels out in the field that would no longer be compliant come January 2019. In the last two years alone we have purchased over 80,000 labels for distribution. We have also hundreds of drums and other reusable containers already labeled that would need to be relabeled to meet this new requirement. Ecology's estimate of the cost to replace a label of only \$1 dollar, which does not include the labor cost, would still cost the university many thousands of dollars. That cost does not seem to meet their estimate that these changes would only cause "minimal costs to update labels". (pg. vii) The same document states that main rationale for the change is: "Ecology inspectors have observed signs that do not adequately communicate the hazards associated with hazardous wastes at a safe distance. Better knowledge of waste hazards would allow staff and the public to appropriately handle wastes, avoid contact, and deal with exposure to toxic, reactive, or corrosive wastes." (pg. viii) First of all, when asked, they have not been able to site one example of where a better label visible at 25 feet would have prevented any incident or exposure. In over 25 years at the UW, we have never had a situation where one of our current hazardous waste labels font size has impacted the safety of staff, emergency responders or the public. We have trained and worked closely with emergency responders. Never has the font size (or the use of DOT labels) ever been mentioned as a concern or a worry to emergency responders. In fact, the regulations already provide require stringent container type, packaging, closure and storage requirements that provide more than adequate protection for staff and the public at ranges of 25 feet or less. Furthermore, the dismissal of approved labeling from PHMSA DOT or OSHA GHS regulations (i.e, "class 9" or the majority of the GHS labeling that doesn't depict something as flammable or corrosive), which have been designed with the intent to properly protect staff, emergency responders or consumers (i.e., the public) is rather pretentious and would require additional contradictory training to explain why something that is a

compressed gas, environmental hazardous or has mutagenic properties be labeled and classified as only flammable, toxic, reactive or corrosive. In the last 20 years we have distributed easily millions of labels, with no way of know how many are still out there in our various labs, clinics, shops, offices etc. That fact allow leaves the UW open to a huge potential compliance liability with nothing but what was described as an "inspector's discretion" to keep us from being in violation if some of those labels are used in the future by mistake. Finally, all of the options suggested regarding labeling small containers (things under .5L, which would not be large enough to be able to place a label meeting the visible at 25 ft requirement) are impractical and/or additionally expensive. For example, putting smaller containers in a tub that is labeled is space prohibitive in most situations. Another option would be to purchase plastic bags to hold the thousands of small (<50ml) containers so that the label would be legible. In addition to the cost to purchase the bags, this would be contrary to our efforts in Sustainability. We feel that this rule does not meet the requirements of RCW 34.05.328(1)(e) in that this addition is not needed "needed to achieve the general goals and specific objectives stated under of this subsection" as well as requirement that the "probable benefits of the rule are greater than its probable costs, taking into account both the qualitative and quantitative benefits and costs and the specific directives of the statute being implemented".

Commenter: Donald Johnson - Comment I-1-1

The labeling requirements for small containers are insane. This is poorly thought out. Your economic assessment is a joke, did you even do one. The cost for labeling and resizing containers will be costly for labs that generate small containers. You said this would help first responders. Did you even ask them about this. The small containers are of low hazard compared to drums and carboys. Promotes awareness! Really. Since when are visitors and non trained employees allowed near hazardous waste containers. Inspectors are accompanied by knowledgeable people who know the waste. This looks like it was written by someone with little or no field experience. Sad!

Commenter: Ashley Lamm - Comment I-2-1

The requirement to make Dangerous Waste Labels visible from 25 feet away is absolutely ridiculous and not feasible in a college research lab setting. Placing vials into gallon container would cause an undue financial burden on my lab. As well as the lack of space for these types of containers. This is not a reasonable, logical, or necessary rule change. With all of the other regulations that are already in place this is a waste of time.

Commenter: Elizabeth Rosenzweig - Comment I-5-1

The proposed changes to section 630(3) are going to make hazardous waste collection and disposal at the university level considerably less safe, harder to encourage researchers to comply with, and more expensive. Environmental Health & Safety collects waste from researchers that are sometimes in very small containers, 50mL or less. If the researcher has to place the tiny container into a large container so

that the hazard sticker(s) is big enough, EH&S will have to stick our hands into the large containers to retrieve the smaller ones. If we don't place absorbent in the container we risk having containers spill in the bottom and if we do place absorbent we will have to dig through the absorbent to find the containers. Either way, the hazard has increased for EH&S staff. The larger containers will cause overcrowding in SAAs and in the labs, where space is at a premium. Being able to read hazard labels from in the hallway, which is where 25 feet away would be, is not going to be useful to anyone because lab doors are kept closed. This requirement will be seen as ridiculous by researchers, who are hard enough to convince to comply with reasonable rules and laws, and "it's the law" will be the only response we have because the new practice will not be safer or more efficient.

The cost will also be quite large. We will have to buy larger containers to hold the smaller ones, waste with more than one hazard will need extremely large containers to accommodate more than one label. We will have to replace all the hazard labels we currently have and buy huge quantities of very large labels, which are considerably more expensive than the smaller ones. This cost will be a double waste of state resources, once because we are disposing of materials we have already paid for and twice because we have to replace the disposed of materials with new, more expensive ones. This change will also necessitate immediate retraining for everyone who generates or manages hazardous waste and more frequent inspections to insure the changes are implemented. This creates a large time burden for everyone involved.

Please reconsider this change. Ignoring time and cost, new regulations should not make workers less safe. This change will make my job more hazardous!

Commenter: Elizabeth Titus - Comment B-2-1

I'm writing in response to the draft Washington state requirement of legibility at 25 feet or lettering size at least a half inch in height. In our laboratories, we have a couple of very small containers of hazardous waste that are used to accumulate very small amounts of hazardous waste. When each container is full, it is lab packed with others for shipping and disposal. Labels with larger lettering would not fit on these small containers. Larger containers are impractical because of limited hood space.

Commenter: Scott Tomren - Comment A-1-2

173-303-174(1)(e)(ix)(B), 173-303-174(f), and several other locations:

Ecology proposes to revise container labeling requirements so that the words "Dangerous Waste" and the hazards must be legible from a distance of 25 feet, or lettering is a minimum of one half inch in height. We (and multiple other commenters) previously expressed concerns regarding the impracticality of this for small containers often used in our laboratories. Ecology's response on this issue following the draft proposal indicated that small containers should be placed into one gallon bins and labeled as described above, or that the academic lab rule can be used as an alternative. We continue to have concerns with this requirement, and are unsatisfied by the response provided. Since we must continue to manage non-lab wastes under the Dangerous

Waste Rules, adopting a separate handling and management process for certain wastes is inefficient and impractical, so the academic lab rule is not viable alternative. Nor do we find it reasonable to place vials in oversized containers. Understand, our concern does not refer exclusively to vials produced by analytical equipment, but may also include expired or unwanted small containers of chemical products, which are produced on a regular basis. If each of these were placed in a 1- gallon container to allow them to be labeled, there would be dozens of such containers in multiple labs, and hundreds in our central accumulation areas prior to each shipment. Additionally, in many cases, the text on the dangerous waste label would be several times larger than the text (and even the pictograms) that appear on the original container label. This would create the perverse situation in which the container of a pure product remaining on the shelf in a lab would be labeled less clearly than a dilute waste solution of the same material which may be far less harmful. As indicated in previous comments, small containers are often placed in storage cabinets, particularly once they arrive in a central accumulation area. Even if placed in a labeled oversized exterior container, these will not be visible behind the cabinet doors. However, the cabinets themselves are typically marked "Flammable" or "Corrosive" by the manufacturer, in large letters. Combined with signage identifying the cabinet, or the room in which the cabinet is located, as part of a dangerous waste accumulation area, this would seem to provide indication of the hazard as required.

Commenter: Anthony McKarns - Comment A-2-7

PNNL comment. 173-303-174(1)(f)(i) and (ii). We previously submitted comments on the preliminary draft rules regarding the size of labels used on small containers in SAAs, particularly in laboratories. We do not believe that Ecology's response in the Response Summary to the preliminary draft rules fully addressed our concerns, nor those of the other entities that submitted similar comments. We continue to believe that the requirement for text to be one half inch high and other markings legible from 25 feet is unnecessarily restrictive and impactful for small containers in SAAs. Please consider the following concerns with respect to labeling small containers in SAAs.

- When entering a space containing an SAA, employees and emergency responders must be aware of the hazards of all hazardous material, including both dangerous waste and hazardous materials. There is no similar requirement for large labels on small containers of hazardous materials; the GHC markings on small containers of hazardous materials are often very small. Requiring large labels for waste when it represents only a small portion of the overall hazards in a room has little benefit. In real-life situations in operating facilities, emergency responders generally rely on facility- and room-level hazard marking and chemical inventories to properly respond to emergencies, not individual container labels seen at a distance.
- Ecology's suggestion in the responsiveness summary that small containers be placed in larger containers to accommodate large labels imposes a significant cost and takes up needed facility space, particularly in laboratories. A given laboratory room often generates many small waste streams. Placing each in a large container (even a 1 gallon

container as suggested by Ecology) will cause significant space impacts to laboratory operations.

- Ecology's suggestion in the responsiveness summary to label cabinets to meet the label size requirement does not seem to meet the actual regulatory requirement. A cabinet is not a container as defined in Section 040. Containers moved out of a cabinet (for example to move from the SAA to a CAA) would then need to be relabeled or packaged in a larger container.
- Ecology seems to underestimate the space required to meet the proposed label size requirements when the words "Dangerous Waste" and multiple risk labels are required on small containers. In addition, in order to properly manage waste, we also must leave room on SAA containers for information that is not required by the regulations (e.g., responsible person, waste description). We request that the label size requirement not apply to accumulation containers having a capacity of 20 liters or less.

Commenter: Anthony McKarns - Comment A-2-9

Comment from PNNL: 173-303-200(7). Our concerns regarding Ecology's proposed label size requirement for SAAs also extend to Central Accumulation Areas. We request that the proposed label size requirement not apply to containers having 20 liters or less capacity.

Commenter: Anthony McKarns - Comment A-2-14

Comment from PNNL: 173-303- 630(3)(a) and (b)

Our concerns regarding Ecology's proposed label size requirement for SAAs also extend to permitted container storage. We request that the proposed label size requirement not apply to containers having 20 liters or less capacity.

Commenter: Jason Sampson - Comment A-3-1

Washington State University (WSU) reviewed the proposed Generator Improvement Rule and Ecology's response to informal Comments. While we have concerns about several proposed changes we are choosing to focus on one topic, Hazard Labels and Labeling Legibility. WSU respectfully disagrees with the Department of Ecology's response to comments regarding Hazard Labels and Labeling Legibility. The proposed lettering requirements provide minimal value to emergency responders at our facilities while significantly impacting storage and handling. WSU takes pride in our waste minimization practices over the last 20 plus years. This has allowed us to maintain our hazardous waste volumes even with a large increase in research, building square footage, employees, and students. This change was made possible in part through microscaling. We handle tens of thousands of containers annually with a majority being smaller than 10 milliliters. An individual laboratory could potentially have several hundred containers with multiple hazards. In your response to Hazard Labels and Labeling Legibility comments you provided suggestions to help generators meet this new requirement. However, having to use that many over packs in a lab negatively affects storage capacity, is extremely expensive, and

definitely does not improve emergency responders ability to do their jobs safely. WSU strongly encourages Ecology to reconsider these proposed changes. Similarly, we are concerned about the implementation of these new label requirements if the regulations are approved as proposed. We currently have satellite accumulation areas in over 2,000 locations, and have distributed over 50,000 labels to meet the needs of the generators. It will not be possible to implement label changes and eliminate the use of our current labels prior to the proposed effective date of February 16, 2019. Finally, staying in compliance at a research institute is difficult when you must communicate with a rotating audience of faculty and students. Trying to enforce a regulation, which does not in our opinion improve public or environmental health and safety, is difficult to justify. I would like to use an example of a 10 mL vial of sodium chloride or table salt. Under state regulations, this is a dangerous waste that must be managed per WAC 173-303. You are now asking us to use a secondary bin in order to attach a label that in no way improves safety, but takes away valuable research space. We respectfully ask you to reconsider your labeling requirements and write regulations equivalent to the Environmental Protection Agency standard. Thank you for the consideration.

Commenter: Joy Diaz - Comment O-2-2

171(1)(e)(ix), 172(8)(b)(i-ii), 172(9)(a) and (b), 173(3)(d)(i-ii), 173(4)(d)(i-ii), 174(1)(f)(i-ii), 200(6)(b), 200(7)(a) and (b)(ii), 200(13)(a)(iv)(C), 240(6)(i).

DOE added language to the proposed EPA regulations the effect of which is to require all waste containers, regardless of size or storage location, to be labeled with words that are legible at a distance of 25 feet or at least ½ inch in height. Our institution, much like our fellow academic institutions across the state, generates the majority of our waste in containers that are 1 gallon or less in size. Making a labeling requirement of ½ inch font or greater very impractical. These containers are generally accumulated in academic or research spaces many of which are less than 25 feet in either dimension. This means that the purpose of this regulatory wording (to make individuals aware of waste containers at a distance > 25 feet) is a moot point. At greater than 25 feet away from our small containers you are no longer in the same room and the container itself is not visible let alone the label. We agree that this addition to the EPA rules makes sense when considering waste containers that are large (tanks) and stored in large open areas, however it is impractical to implement and has no benefit whatsoever to employees or first responders when applied to containers smaller than 55 gallons.

Recommendations:

1. Adopt the EPA proposed changes without the addition of legibility at > 25 feet or font of > 1/2 inch.
2. Adopt the EPA proposed changes in addition to DOE proposed changes with the addition of a container size parameter such as: "containers greater than 55gals in capacity must be labeled..."

Response to container and tank labels

Introduction: Ecology proposed new rules requiring hazardous waste labels and hazard labels on containers and tanks to be legible at a distance of 25 feet or the lettering to be at least ½ inch in height. These label size legibility rules, which are unique to Washington State, apply to

satellite accumulation areas, central accumulation areas and to permitted storage areas. Most comments Ecology received on this topic were from academic and private laboratories. The overarching issue from these entities is that these new requirements impose significant costs and operational impacts to their facilities, especially as they impact laboratory operations. A couple of academic institutions indicated that none of the thousands of labels they currently use will meet this new standard.

Issue one: Larger lettering on labels is not practical. A primary concern was the inability to fit labels meeting the lettering size requirement on smaller containers four liters or less, given that most of the containers in labs are of this size. Informal Ecology response recommended that small containers, such as vials, could be placed in oversized containers able to accommodate the larger labels required by the rule. Commenters indicated that this solution was unfeasible due to lack of space in labs and costs of buying larger over pack containers. Commenters noted that many labs are small and don't have a 25 foot line of sight or are less than 25 feet in any one direction, making this part of the rule moot. Further, they state this over pack alternative does not meet rule language, and were not in favor of Ecology inspector discretion on this point.

Response to issue one: Ecology will amend the proposed labeling size criteria to apply to containers greater than 1 gallon or four liters; containers less than one gallon or four liters are exempt from the ½ inch lettering or 25 foot visibility rule. These smaller container must still be labeled with the required dangerous waste label and hazard label, the same as larger containers, but sized appropriate to the container size. One commenter recommended that Ecology exempt containers twenty liters and under. We considered this option, but given that many generator sites other than labs store waste in pails between 4 liters and 20 liters, it is important that hazardous waste and hazard label information be easily seen by employees and visitors to the site. For instance, an automotive repair shop is likely to have containers of this size in open access areas. For worker and visitor safety, these small containers should meet the legibility rule.

This exemption from the labeling legibility rule applies to all generators and not only to laboratories. This labeling exemption for small containers will:

- allow laboratories to continue to use their compliant existing labeling systems on containers four liters and under;
- not cause the generator to place small containers in larger containers to accommodate larger labels;
- not cause generators to purchase larger labels to be used for small containers; and
- not take up valuable laboratory research space.

Issue two: Labeling rules should not differ from federal rules. Several commenters expressed that the labeling rule is unneeded or impractical, especially in the laboratory setting. Some comments indicated that use of large labels doesn't promote safety, since in spill situations environmental staff and emergency responders don't focus on individual small containers, rather they are looking at area-wide threats and large volume concentrated product storage. Commenters also recommended that state rules on this topic should be the same as the federal

hazardous waste regulations. One reason given for this recommendation is that Ecology has no evidence that use of larger lettering on the labels prevents accidents.

Response to issue two: The Dangerous Waste Regulations are a preventative set of regulations. The federal hazardous waste regulations only give minimum national standards of safety that authorized states must meet. Due to unique industries, concerns and environments, almost all states adopt more stringent hazardous waste, including Washington State. Ecology will keep the modified state only labeling size rules. Since the dangerous waste regulations are mostly preventative regulations, mishaps that the rules may have prevented are not reported to Ecology. The agency has had instances where Ecology inspectors received on-site exposures that may have been prevented by the ability to understand the hazard from 25 feet away. Ecology is making a qualitative judgement, based on these exposures and numerous site inspections by Ecology hazardous waste inspectors, that labels readable at a safe distance are important to the safety of workers, site visitors and the inspectors themselves.

Comments on designation of unknowns and point of generation

Commenter: Douglas Gallucci - Comment I-6-2

Designation of dangerous waste (173-303-070 (b)) The proposed rule as written includes the following additional requirements:

Added language clarifying that any person who discovers an unknown material is also responsible for accurately designating that waste. The UW agrees with both Seattle City Light, Seattle Parks Department, and others that this additional clarifying language is too vague and opens up any state, county or city organization that has large tracts of land to increased potential regulatory action in the event of an illegal dumping of hazardous materials. Over the years, the UW has had numerous situations where "persons unknown" have illegally dumped hazardous waste on one of our properties. We have always worked with the local law enforcement agencies and/or the Department of Ecology to dispose of the waste and protect the environment. Ecology's response that "...when property owners are made aware of their potential liability for abandoned materials on their property, they tend to take appropriate legal measures to stop or lessen that activity or those who may abandon materials on their property." does not seem reasonable when there may be thousands of acres of wildlife habitat involved. Efforts to restrict access would adversely affect the movement of wildlife or restrict public access to these areas. We feel that the proposed rules as promulgated by the EPA in the GIR do not need any further clarification by WODE. The use of such general terms as "Any person", "unknown material" and "discovering", even if defined, are unfortunate and unnecessary.

Commenter: Scott Tomren - Comment A-1-1

173-303-040: Ecology has revised the definition of "Point of Generation" which includes "both date and place." Please clarify how this may impact labeling of accumulation containers for waste streams which accumulate at a low rate. For example, an academic laboratory setting, analytical equipment may be operated which drains its waste to a satellite accumulation

container. The waste stream may have a consistent composition, but generate only a few milliliters per day, and the receiving container may take several days, or even longer, to fill. Previous guidance has indicated that satellite accumulation containers should not be labeled until filled. Does the new definition of "point of generation" alter that interpretation?

Commenter: Aurana Lewis - Comment O-3-1

Comment: Discovery of Unknown Waste (non-mandated, state-only change)

Oppose. Ecology seriously over-reaches when it tries to add dangerous waste responsibility for "unknown material" on any member of the public discovering it, passerby, or victim of illegal dumping, or even on the owner or lessee of land. There is no precedent in dangerous waste or solid waste law for this new, state-only idea. Suggest deleting these concepts from all parts of the draft. For example, -delete "or who discovers an unknown material" from WAC 173-303-070(1)(b) -delete "or upon the discovery of an unknown material" from WAC 173-303-070(3), and -delete "A generator that accumulates dangerous waste on site is a person that stores dangerous waste" from WAC 173-303-170. "Any person," "unknown material" and "discovering" are too broad as well as vague. Washington State prohibits depositing solid waste on property and the state statute requires the enforcement agency to do additional work to identify the person responsible rather than putting the burden on even the lessor or landowner. See RCW 70.95.240(5): "When enforcing this section, the enforcing authority must take reasonable action to determine and identify the person responsible for illegally dumping solid waste before requiring the owner or lessee of the property where illegal dumping of solid waste has occurred to remove and properly dispose of the litter on the site. " Ecology wrote, inaccurately, that the "unknown waste" amendment is only a clarification with no material impact on requirements. Ecology made no revisions in response to the public's comments on the preliminary draft beyond clarifying that this regulation would apply to "unknown wastes not generated by the generator, but are abandoned on their property". The rule already requires action by generators, defined reasonably in federal and state law by what they have done in the past: "Generator" is "any person, by site, whose act or process produces dangerous waste or whose act first causes a dangerous waste to become subject to regulation.(40 CFR 262.10, WAC 173-303-040; see also 40 CFR 262.10: "Purpose, scope, and applicability. (a) These regulations establish standards for generators of hazardous waste...."). This is clearly an expansion of the regulation, placing heavy liability on person's who act or processes did not produce dangerous waste or cause it to become subject to regulation. Ecology failed to acknowledge or analyze any costs or benefits of the change in its Preliminary Regulatory Analysis. See Response Summary at 9-12, 63-67, and Preliminary Regulatory Analysis at 23, 43. The change would be an improper shortcut. The current homelessness crisis in Washington State continues to bring to public attention that it is no simple matter to properly regulate against illegal dumping and dangerous waste accumulations on public and private properties. There is no quick fix, and the Dangerous Waste rules are not the place. We would be happy to discuss our concerns by phone or in person at your convenience.

Commenter: Steve Shestag - Comment B-5-7

Persons Who Discover Unknown Materials, proposed section 173-303-070(1)(b).

It is unclear from the language proposed at 173-303-070(1)(b) whether the phrase "applicable to any person who generates a solid waste" limits the applicability of the remainder of this paragraph or not. It appears not, since further down the paragraph we read: "Any person who generates a solid waste or discovers an unknown material must make an accurate determination if that waste or unknown material is a dangerous waste.." (emphasis added) This language indicates that waste characterization obligations are imposed on anyone who discovers an unknown material, even non-generators and regardless of the location of the material when it is discovered. As proposed, if a person discovers an unknown material anywhere in the state (not necessarily at a generator site), then he, she or it would be subject to the requirement to determine its dangerous waste status. For unknown materials discovered at a location other than a generator site, the average property owner or passerby would have no knowledge of Washington's dangerous waste classification rules. Ideally, a property owner or casual passerby would contact the Department of Ecology or local authority, rather than attempting to determine its dangerous waste status. To prevent this (hopefully) unintended reading of the rule, some limitation on the location of discovery is needed. Boeing suggests the following clarifying language: "Any person who generates a solid waste, and any person who discovers an unknown material at a location that is under the control of that person, must either make an accurate determination of whether that waste generated by that person, or that unknown material discovered by that person, is a dangerous waste, or promptly engage the assistance of another person who is qualified to make this determination. In the case of a person that discovers an unknown material at a location that is under the control of that person, and who is not the generator of that material, the obligations of that person under this section shall be fully satisfied by notifying Ecology, the Washington State Patrol, or any local law enforcement agency or local solid or dangerous waste regulatory agency of the discovery of the material. Furthermore, there shall be no liability under this section for any such person with respect such determination for any material that Ecology cannot demonstrate is a dangerous waste."

Commenter: Anthony McKarns - Comment A-2-16

Additional DOE comment: WAC 173-303-070(b): the addition of "or who discovers an unknown material," is concerning, especially since it requires, "an accurate determination" of whether the waste designates.

Also, the addition of WAC 173-303-070 (3)(a) seems problematic: "The dangerous waste designation for each solid waste must begin immediately at the point of waste generation or upon the discovery of an unknown material..." IMMEDIATELY is not defined. We've also argued that in some cases we do not know the point of generation.

Commenter: Joy Diaz - Comment O-2-3

070(3)(a). DOE added a substantial requirement to the proposed EPA rules by stating that dangerous waste designation must "begin immediately at the point of waste generation." This new requirement has several issues. First, the term 'begin immediately' is not defined. How much of the designation process is considered 'beginning'? Is calling it a potential dangerous waste and

putting it on a shelf to wait further designation 'beginning immediately'? Does it have to have a waste code assigned to it and put on the label before the process is considered 'begun'? Second, at the point of generation many generators take advantage of Satellite Accumulation rules. While a container is being filled, it may start with one dangerous waste code and end with three. It is not practical or possible to redesignate a satellite accumulation container after each substance addition. Third, it is not trackable. How will an inspector know that a particular designation has taken place 'immediately'? Fourth, it does not add ecological protection benefit. The second part of 070(3)(a) makes sense – do the designation prior to any alteration of waste, but there is no ecological protection benefit to insisting that a designation 'begin immediately'. It is actually in everyone's best interest to allow some time for the designation to be done completely, thoroughly and competently, regardless of how long that process takes. Fifth, it is not humanly possible to be in compliance. Many corporations have only one or two employees responsible for waste management and designation. Are we to be out of compliance if someone generates a waste while that one person is out sick? Nearly all of these issues would be resolved with a clear understanding of what is meant by 'begin immediately' and or a revision of the wording.

Recommendations:

1. We encourage DOE to revise the language in 070(3)(a) to say that the designation process must begin "as soon as practical" after the point of generation and prior to any alteration of the waste.
2. Alternatively, we encourage DOE to add explanatory language that defines what is meant by the mandate to 'begin immediately'.

Commenter: Joy Diaz - Comment O-2-1

-070(1)(b), 070(3)(a-g) and 070(6). DOE added language to the proposed EPA regulations to the effect that a person "who discovers an unknown material," is responsible to designate the 'discovered' waste. This addition presupposes that everyone that has the potential to discover an unknown material also has the training and knowledge necessary to properly designate that material. It is our understanding that the intent of this statement is to reinforce the fact that any waste discovered on your property is your responsibility to deal with in appropriate ways. That however is not how it is stated and may have the effect of putting regulatory burden on individuals or entities that are not currently subject to WAC 173-303. For example, take a daycare center, which likely does not generate dangerous waste and is probably not even aware of dangerous waste regulations that has a potentially dangerous waste (maybe solvent-based paint) dumped in their dumpster. What are they now responsible to do?

Recommendations: We encourage DOE to consider adopting the proposed EPA language without the addition of the phrase "who discovers an unknown material".

Response to designation of unknowns and point of generation

Issue one: Proposed rule infers broad designation responsibility on anyone discovering waste. Several commenters were concerned that use of terms in proposed WAC 173-303-070(b) such as "Any person", "unknown material" and "discovering" are too vague, unnecessary and go beyond the scope of the dangerous waste regulations. Use of these terms infers designation

responsibility to apply to anyone who discovers a waste at any location, regardless if it is their property or place of business.

Response to issue one: Ecology is not suggesting that any person discovering unknown material not on their property or site is responsible for designating that waste. In general, people are not responsible to designate or manage waste found on a public right-of-way, at an adjacent property, or any location that is otherwise not under the control of that person.

The term “person” is clearly defined in the dangerous waste regulations and in this context only applies to property owners or generator sites. Also, when used in the context of the dangerous waste regulations, it is clear what the meaning is. To clear up any possible confusion, Ecology will amend the proposed language to clarify that any person who generates, or discovers solid waste on their site is responsible to designate that waste. We are also removing the term “unknown material” to clarify that it is solid waste that are subject to designation, not any unknown material. In the adopted rule, we will not be further defining the terms “any person” or “discover” as used, and believe their usage follows the intent of the regulations and Chapter 70.105 RCW Waste Management Act.

Issue two: Property owners should not be responsible to designate unknown wastes discovered on their property. Several commenters don’t believe that property owners in general must take on designation responsibility for wastes discovered on their property. They believe this rule opens up state, county, city organizations, or private companies with large tracts of land to possible increased regulatory enforcement in the event of an illegal dumping of hazardous materials. A commenter stated that these changes are new requirements placing heavy liability on people who did not produce or generate the waste. Further, commenters make the case it is very difficult to regulate against illegal dumping, especially on large tracts of public or private lands. Efforts to control public access and dumping on wilderness tracts will result in restrictions on wildlife movement and public access. Another issue raised is the difficulty of preventing homeless people from abandoning hazardous material on private or public property.

Response to issue two: In response, Ecology disagrees with the commenter’s view that property owners are not responsible for designating unknown wastes found or illegally placed on their property. As background, solid wastes are of two broad groups:

1. Solid wastes generated by the “generator” at his site. This may occur for a number of reasons:
 - a. The generator has little or no knowledge of their own manufacturing process and feedstock materials in order to make an initial screening toward the designation status of generated waste.
 - b. The generator finds or discovers a “forgotten” container of waste, or out of specification product no longer usable.

Generators tend to know the composition of products or ingredients they purchase for use. They also know if they produce a waste(s) from their processes; thereby setting up screening or testing protocols prior to first generating wastes.

2. Solid waste not generated by the generator, but abandoned on their property, later to be found or discovered.

Also included in this group are wastes found or discovered by a person on their newly purchased property. With abandoned solid waste, Ecology understands the generator did not produce that waste. Also, the property owner or site operator is not likely to have any test data or other information useful to determine if they have a dangerous waste.

However, they shoulder generator responsibilities for the proper designation, onsite management, and disposal of that waste. Ecology acknowledges difficulties for property owners in preventing illegal dumping of hazardous material. These may be societal issues apart from requirements imposed by the dangerous waste regulations and the inherent responsibility to manage wastes abandoned on their property. Regarding the comment about the homeless encampments (other examples could include such areas as campgrounds, day use areas, and picnic grounds), responsible agencies may be able to take advantage of the household hazardous waste exclusion in the dangerous waste regulations, as well the rules for special waste and for small quantity generators for regulatory, designation, and disposal relief. These rules may bring some relief to the management of waste from the current homeless crisis, as the commenter noted.

Whenever possible, Ecology and hazardous waste inspectors will work with property owners to remedy these illegal dumping situations prior to enforcing against a property owner.

Issue three: Existing regulation and state law restrict designation responsibility to the generator of the waste. A commenter made the case the existing dangerous waste and federal hazardous waste regulations restrict waste designation only to “generators” defined as “any person, by site, whose act or process produces dangerous waste or whose act first causes a dangerous waste to become subject to regulation” (WAC 173-303-040). The commenter also noted that state law makes it unlawful to dump or deposit solid waste without a permit (RCW 70.95.240), and requires the enforcement agency to do additional work to identify the person responsible, rather than putting the burden on the lessor or landowner. Another comment claimed that the average property owner is not aware of dangerous waste requirements, and in the event of illegally dumped wastes will first call Ecology or local authorities. They recommended alternative rule language that shift designation and management of such waste on to state and local agencies.

Response to issue three: In response, Ecology agrees that it is unlawful to dump or deposit solid waste without a permit. Local health departments or other local agencies are likely involved with finding the perpetrator of illegal dumping prior to enforcing against a property owner. Also, it is the right of the property owner or site operator to take legal action in the event of illegal dumping. However, this is beyond the scope of the dangerous waste regulations. With that said, the property owner or site operator bears the responsibility for the proper designation and

cleanup of waste on their property, regardless whether they generated it or found it illegally placed on their property.

In response to the recommendation for alternative waste designation language at WAC 173-303-070(1)(b), Ecology will not be making this change. Property owners or site operators cannot be exonerated of their liabilities and responsibilities under the dangerous waste regulations. Further, they can't pass their waste management responsibilities to the Department of Ecology, the Washington State Patrol or any local enforcement agencies by simply notifying them upon discovery of abandoned wastes. That suggestion would pass the financial and legal responsibilities to the taxpayers of Washington State.

Issue four: Concern about accurately designating unknowns. A commenter has a concern with added state language "or who discovers an unknown material," in proposed WAC 173-303-070(1)(b), especially since it requires "an accurate determination" of whether the waste designates.

Response to issue four: Federal hazardous waste language requires generators of solid waste to make an accurate determination whether that waste is a hazardous waste (40 CFR 262.11). Ecology is adopting similar language to be consistent with RCRA. Discovery of solid waste prompts an accurate designation determination, regardless whether the site operator generated the waste themselves or they found the waste abandoned on their property. We are removing the term "unknown material", while keeping language requiring "Any person who generates or discovers a solid waste on their site must make an accurate determination if that waste is a dangerous waste..."

Issue five: Impact of rule requiring designation to begin immediately. In WAC 173-303-070(3)(a), commenters were concerned with the proposed definition of "Point of Generation" to include "both date and place" as the point at which material is first identified as a solid waste. They questioned how this definition may impact labeling and designation of satellite accumulation containers for waste streams which accumulate at a low rate. Commenters questioned the meaning of the term "immediately" since it is not defined. One comment stated that in some cases the point of generation is not known. A request was made to change "immediately" to "as soon as practical".

Response to issue five: Ecology does not envision these changes to the definition of "point of generation" will impact regulatory requirements for labeling and designation of satellite accumulation containers.

One commenter was under the impression that previous Ecology guidance indicates that satellite accumulation containers should not be labeled (with "dangerous waste" and with risk labeling) until filled. In response, containers accumulating dangerous waste in satellite areas must meet the same labeling requirements as containers in central accumulation areas. The only difference is that in a satellite accumulation area the date of accumulation is only placed on the container(s) once the satellite accumulation volume has been reached, rather than when waste first enters the container. It does not matter if the satellite accumulation container is full or not.

To address concerns about the meaning of “immediately”, when a term does not have a regulatory definition in the dangerous waste regulations, then the common ordinary meaning is used. However, Ecology will replace the term “immediately” with the term “promptly”. This change will provide some flexibility to the process of designating wastes. The issue is also raised that at times the point of generation is not known. Ecology expects that the process of designation should start at the point when the generator is aware they have a solid waste.

Issue six: Immediate designation of satellite accumulation containers with multiple waste codes. One commenter mentioned that at the point of generation many generators take advantage of Satellite Accumulation (SA) rules. They note while a container is being filled, it may start with one dangerous waste code and end with three. This commenter states that it is not practical or possible to re-designate [waste in] a satellite accumulation container after each substance addition. In contrast the same commenter stated that the second part of WAC 173-303-070(3)(a) makes sense – *do the designation prior to any alteration of waste*.

Response to issue six: Ecology believes the practice of mixing unknown wastes into a container and waiting until that container is full to properly designate the waste is an unwise and dangerous practice. The practice described above would not prevent incompatible wastes from being mixed or commingled together and is not supported by federal hazardous waste or state dangerous waste regulations. Mixing wastes prior to designation is an “alteration of waste” and can lead to improper waste designation results. That practice could put workers, students in academic laboratories, visitors, the public and the environment in harm’s way. In addition, that practice could create larger volumes of listed waste that otherwise could be avoided by knowing what is being mixed in a SA container. The mixing of wastes is a form of treatment, a type of activity not allowed under the SA regulations. Mixing wastes together may also be considered an impermissible form of dilution, removing waste codes that should apply to a wastestream to prevent mismanagement and disposal of a dangerous waste.

The same commenter states that it is actually in everyone's best interest to allow some time for the designation to be done completely, thoroughly and competently, regardless of how long that process takes. In response, the dangerous waste regulations do require waste to be properly designated. However, “regardless of how long that process takes” (as suggested by the commenter) is not supported by state or federal regulations. For example, if it took 11 months to properly designate a solid waste and apply waste codes, and if the volume of such waste was, as an example, over the LQG’s generation limit, the generator would have been out of compliance with the LQG dangerous waste regulations for at least 11 months; now subjecting themselves to a permit. In other words, the dangerous waste regulations would not start at the 11th month; the rules would apply retroactively in this case. Therefore, Ecology cannot support the commenter’s suggestion that the designation process begin “as soon as practical”. As stated above, Ecology will replace the term “immediately”, with the term “promptly” to give some flexibility in designating wastes.

Comments on conditions for exemption

Commenter: Paul Martin - Comment B-3-4

173-303-040. "Accumulation" refers to the definition of " storage." "Storage" means the holding of dangerous waste for a temporary period. Accumulation" of dangerous waste, by the generator on the site of generation, is storage of dangerous waste and can be managed under the applicable conditions for exemption of WAC 173-303- 170(2)(b)." Comment: Ecology's Response to Comments (B-6-10) did not address CHPRC's original concern. CHPRC requests clarification that defining accumulation as storage will not affect generator onsite treatment in tanks, containers or containment buildings. EPA clarified in the March 24, 1986, Federal Register that "accumulation" allowed not only storage but also and treatment without a permit assuming the generator standards of 40 CFR 262.34 were being met. By defining accumulation as storage, CHPRC hopes that Ecology is not impacting treatment by generator. Excerpt from March 24, 1986 Federal Register, page 10168. "Of course, no permitting would be required if a generator chooses to treat their hazardous waste in the generator's accumulation tanks or containers in conformance with the requirements of § 262.34 and Subparts J or I of Part 265. Nothing in § 262.34 precludes a generator from treating waste when it is in an accumulation tank or container covered by that provision. Under the existing Subtitle C system. EPA has established standards for tanks and containers which apply to both the storage and treatment of hazardous waste. These requirements are designed to ensure that the integrity of the tank or container is not breached. The same standards apply to a tank or a container, regardless of whether treatment or storage is occurring. Since the same standards apply to treatment in tanks as applies to storage in tanks, and since EPA allows for limited on-site storage without the need for a permit or interim status (90 days for over 1000 kg/mo generators and 180/270 days for 100-1000 kg/mo generators), the Agency believes that treatment in accumulation tanks or containers is permissible under the existing rules, provided the tanks or containers are operated strictly in compliance with all applicable standards. Therefore, generators of 100-1000 kg/mo are not required to obtain interim status and a RCRA permit if the only on-site management which they perform is treatment-in an accumulation tank or container that is exempt from permitting during periods or accumulation (180 or 270 days)." A similar concern is whether defining accumulation as storage will impact satellite accumulation areas and the relief from the one-year storage prohibition for land disposal restricted wastes. EPA clarified in the January 14, 1986, Federal Register on page 1709: "The Agency does not interpret the statutory restriction on the storage of prohibited wastes as overriding the satellite accumulation rule contained in 40 CFR 262.34(c). That rule allows generators to accumulate up to 55 gallons of hazardous waste or 1 quart of acutely hazardous waste in a container, at or near the point of generation, without a permit, interim status, or compliance with the 90-day accumulation rule. The purpose of satellite accumulation is to allow the accumulation of certain quantities necessary to facilitate transportation, further treatment, or disposal and, thus, such accumulation falls under the section 3004(j) exemption." If Ecology defines accumulation as storage, it may create compliance confusion among regulators and the regulated community if an SAA accumulates hazardous wastes for more than one year. CHPRC

would appreciate confirmation from Ecology that SAAs retain relief from the LDR one-year storage prohibition.

Commenter: Anthony McKarns - Comment A-2-2

PNNL comment. 173-303-040. Referring the definition of "Accumulation" to the "Storage" definition is somewhat confusing. It seems that a straightforward definition of "accumulation" could be developed, e.g., "Accumulation is the storage of dangerous waste under the exemptions specified in WAC 173-303-170(2)(b)."

CHPRC comment: 173-303-040. Applicable Text: "Accumulation" refers to the definition of "storage." "Storage" means the holding of dangerous waste for a temporary period. "Accumulation" of dangerous waste, by the generator on the site of generation, is storage of dangerous waste and can be managed under the applicable conditions for exemption of WAC 173-303-170(2)(b).

Ecology's Response to Comments (B-6-10) did not address CHPRC's original concern. CHPRC requests clarification that defining accumulation as storage will not affect generator onsite treatment in tanks, containers or containment buildings. EPA clarified in the March 24, 1986, Federal Register that "accumulation" allowed not only storage but also and treatment without a permit assuming the generator standards of 40 CFR 262.34 were being met. By defining accumulation as storage, CHPRC hopes that Ecology is not impacting treatment by generator.

Excerpt from March 24, 1986 Federal Register, page 10168.

"Of course, no permitting would be required if a generator chooses to treat their hazardous waste in the generator's accumulation tanks or containers in conformance with the requirements of § 262.34 and Subparts J or I of Part 265. Nothing in § 262.34 precludes a generator from treating waste when it is in an accumulation tank or container covered by that provision. Under the existing Subtitle C system. EPA has established standards for tanks and containers which apply to both the storage and treatment of hazardous waste. These requirements are designed to ensure that the integrity of the tank or container is not breached. Thus. The same standards apply to a tank or a container, regardless of whether treatment or storage is occurring. Since the same standards apply to treatment in tanks as applies to storage in tanks, and since EPA allows for limited on-site storage without the need for a permit or interim status (90 days for over 1000 kg/mo generators and 180/270 days for 100-1000 kg/mo generators), the Agency believes that treatment in accumulation tanks or containers is permissible under the existing rules, provided the tanks or containers are operated strictly in compliance with all applicable standards. Therefore, generators or 100-1000 kg/mo are not required to obtain interim status and a RCRA permit if the only on-site management which they perform is treatment-in an accumulation tank or container that is exempt from permitting during periods or accumulation (180 or 270 days)."

Response to conditions for exemption

Commenters questioned if MQGs and LQGs could continue to practice treatment by generator (TBG) under the new definition for accumulation, which refers to the definition of storage. In response, Ecology, the dangerous waste regulations, the Environmental Protection Agency and the federal RCRA regulations will continue to support and allow MQGs and LQGs to practice TBG under the applicable MQG and LQG regulations. The TBG allowance continues to be a conditional rule a generator may choose to follow to avoid a permit; there has been no change in that application of TBG on the state and federal levels. One commenter asked for confirmation from Ecology that satellite accumulation areas (SAA) retain relief from the land disposal restriction's (LDR) one-year storage prohibition. In response, as long as the generator complies with the SAA requirements, there is not a limit on how long wastes can remain in a SAA. There is only a limit on the quantity of waste in a SAA. The SAA rules allow for storage of small amounts of waste needing to be accumulated for longer than 90 days; LDRs apply for wastes being shipped off site for treatment or disposal. For clarification, TBG is not allowed in SAA's.

Comments on authorized representative

Commenter: Paul Martin - Comment B-3-3

173-303-040. "Authorized representative" means the person responsible for the overall operation of a generator site, facility, or an operational unit (e.g., plant manager or superintendent).

Comment: CHPRC is not in favor of this proposed change because it is less clear than the 40 CFR 261.10 equivalent wording. 40 CFR 261.10 defines an "Authorized representative" as "the person responsible for the overall operation of a facility or an operational unit (i.e., part of a facility), e.g., the plant manager, superintendent or person of equivalent responsibility." The suggested definition in 173-303-040 does not include the phrase "or person of equivalent responsibility" which appears to limit the delegation authority of the authorized representative to act as alternate authorized representatives. Ecology's Response to Comments (B-6-9) stated that the concern is that an authorized representative is meant to be an employee of that business, and not the TSD or consultant. CHPRC would support the authorized representative definition if it included the phrase, "or an employee of the company of equivalent responsibility".

Response to authorized representative

Ecology agrees with the commenters that the term "authorized representative" is meant to include an employee of that business (such as a plant manager or superintendent) and not the hired hazardous waste management company or consultant. They suggested using the phrase "or an employee of the company of equivalent responsibility". Ecology will make that change in the definition.

Comments on contingency plans and emergency response

Commenter: Steve Shestag - Comment B-5-5

Contingency Plan Scope, proposed section 173-303-350(1) The contingency plan needs to show that the facility is prepared to respond to a range of incidents. Subsection (1) attempts to describe the scope of these events or incidents, but the proposed revision is overbroad. The corresponding federal rule 40 CFR 262.260 has a well-defined list of such events: "The contingency plan must be designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water." (emphasis added) The federal rule lacks two trigger events, natural disasters and releases to groundwater, which the proposed Washington rule would include, and this addition is appropriate. The proposed addition of "hazardous substance" release is problematic, since this is a defined term under CERCLA and EPCRA rules, which have their own planning and response requirements that are tied to Reportable Quantities, which the proposed Washington addition of "hazardous substance" lacks. The dangerous waste rule should confine itself to materials that are dangerous wastes or dangerous waste constituents before any release to the environment, and not purport to require the contingency plan to cover all "hazardous substances," which under CERCLA and EPCRA may be fresh product, not waste. (The Washington definition of "hazardous substances- at WAC 173-303-040 reinforces that this definition includes non-wastes, by including the terms "product" and "commodity."). Ecology's Response to Comments presumes that any fresh product involved in an emergency event will be "spilled," and thus become solid or dangerous wastes. Even if this dubious legal conclusion is accepted as correct, Ecology does not address the fact that Ecology's change to the federal rule language massively expands the dangerous waste contingency planning requirements overlapping with the planning requirements of other programs directed toward the release of materials that are not waste prior to their release. While a dangerous waste generator may opt to maintain a single unified plan that covers dangerous waste requirements, as well as CWA, SPCC, CERCLA, and EPCRA requirements, such a unified plan is an option, not a requirement

Commenter: Steve Shestag - Comment B-5-6

Quick Reference Guide for LOG Contingency Plans, proposed section. The Washington proposal and the federal generator improvements rule have the same requirement for a Quick Reference Guide that includes: "A map of the facility showing where dangerous wastes are generated, accumulated, recycled and treated and routes for accessing these wastes." A map showing all the points of generation at a Boeing manufacturing facility would include every workbench and work station where solvent wipes are used, sealant applied, or touch-up paint is hand applied, hardly a "quick reference guide." Also, the precise locations where these activities occur on the shop floor are in constant flux, making a detailed map obsolete before it can be printed and distributed to emergency responders. This is one instance where some Washington language is needed to interpret the federal rule. We suggest adding the following: "For situations where generation and accumulation locations within a building are frequently moved (for example, to follow moving assembly lines or moving work stations), or are widespread

throughout an area, making it impractical to identify each location individually on a map, the map shall indicate those areas of the building where generation or accumulation may occur."

Commenter: Anthony McKarns - Comment A-2-11

Comment from MSA: WAC 173-303-201(11)(a). This requirement should include a provision to render the requirement inapplicable in situations where local emergency responders do not receive copies of the contingency plan. The Hanford Facility (LQG) possesses 24-hour internal emergency response capabilities. Hence, the local emergency response authorities are not relied upon to provide emergency response service. The local emergency response agencies have declined to receive Hanford Facility contingency plan documentation. In the past, letters were written from the Hanford Facility to the local emergency response agencies to document this situation and associated variance from the requirement for a LQGs to submit a copy of the contingency plan to local emergency responders [i.e., WAC 173-303-201(10)(b)]. For facilities like Hanford that do not provide a copy of the contingency plan to local emergency response agencies, it does not make sense to provide a quick reference guide of the contingency plan to local emergency response agencies. One option to consider might be to include a waiver provision similar to the waiver for MQGs under WAC 173-303-172(11)(f)(iii).

Response to contingency plans and emergency response

Support of rule change: One commenter supports the term “natural disaster” in 173-303-350(1) rule language as an example of a triggering event for contingency plans. The also support the example of releases to groundwater triggering event.

Response: Ecology notes the comment of support. However, we note that releases to groundwater is not a new triggering event in the contingency plan regulation.

Issue one: Hazardous substances should not be in the contingency plan. The same commenter stated that the dangerous waste rules should confine itself to materials that are dangerous wastes or dangerous waste constituents before any release to the environment, and not purport to require the contingency plan to cover all "hazardous substances". This term encompasses fresh product. This commenter finds the term “hazardous substance” problematic, especially when there is overlap with CERCLA and EPCRA planning and reporting requirements.

Response to issue one: When hazardous substances are released into the environment (for example, the use of fluorinated fire suppressant/foam in the environment [aqueous film forming foam or AFFF]), these are likely solid waste and potentially dangerous wastes. Generally they can no longer be used for their intended purpose. Many released products can pose a significant impact to human health and the environment. A “hazardous substance” is any liquid, solid, gas, or sludge, including any material, substance, product, commodity, or waste, regardless of quantity, that exhibits any of the physical, chemical or biological properties that would be exhibited by any characteristic or criteria dangerous wastes. When generators have not factored in spilled products becoming wastes into their contingency plans, Ecology has found that,

historically, contingency plans have not been employed during emergency events at large quantity generators and permitted facilities. Adding hazardous substance to the rule will clarify Ecology’s expectations that large quantity generators and permitted facilities employ emergency procedures to protect human health and the environment during emergency events. The emergency coordinator will determine if the event is an emergency. Ecology will retain “hazardous substance” in the final rule.

Issue two: Difficulties in noting satellite accumulation areas in Quick reference guide map.

One commenter noted they have many satellite accumulation areas (SAA), some which vary in location from time to time. They request that Ecology provide rule language to interpret the federal quick reference guide rule.

Response to issue two: In review of the federal register preamble to the generator improvement rule (81 *FR* 85732) and the related federal regulations (40 CFR Part 262.15(a)(7) [the SAA regulations] and 40 CFR Subpart M [262.262(a)(4) as examples]) the federal intent is clear and Ecology cannot provide the requested interpretation. Under the federal rule EPA has made the final regulations clear that all points of generation and SAAs, in addition to central accumulation areas (CAA) fall within the scope of the regulations for preparedness and planning. SAA’s operated by LQGs must meet the subpart M requirements. These requirement clearly state that a map of the facility must show where hazardous wastes are generated, accumulated, and treated.

Issue three: Waiver from requirement to inform local emergency response authorities.

An LQG commenter (comment: A-2-11) from the Hanford Facility stated they have 24-hour internal emergency response capabilities and so the local emergency response authorities are not relied upon to provide emergency response service; therefore there is no need to provide the local emergency response authorities with contingency plan document. They note that federal rules provide LQG’s this notification waiver.

Response to issue three: Ecology agrees with the commenter and will include a “notification waiver” for LQGs in the final rule. This will be similar language as the “notification waiver” allowed for MQGs at WAC 173-303-172(11)(f)(iii). Not including the LQG waiver language appears to have been an oversight by Ecology. We will add to WAC 173-303-201(7) a new paragraph (f):

“A facility possessing twenty-four-hour response capabilities may seek a waiver from the authority having jurisdiction (AHJ) over the fire code with the facilities locality as far as needing to make arrangements with the local fire department as well as any other organization necessary to respond to an emergency, provided that the waiver is documented in the generator’s operating record.”

Comments on manifests

Commenter: Joseph Kohler - Comment I-3-1

173-303-180(10)(d) The proposed text reads as follows:

“(d) Requirement for one printed copy. To the extent the hazardous materials regulation on shipping papers for carriage by public highway requires shippers of hazardous material to supply a paper document for compliance with 49 CFR Part 177.817, a generator originating an electronic manifest must also provide the initial transporter with one printed copy of the electronic manifest. In addition, the one printed copy of the electronic manifest must provide the information required in subsection (5) of this section for state-only dangerous waste that designates only by the criteria under WAC 173-303-100 and as state listed WPCB and WSC2. ”

49 CFR Requirements Independent of WAC 173-303:

COMMENT: The requirement to provide a Shipping Paper per 49 CFR 177.817 has existed prior to the advent of the e-Manifest system. The requirements contained therein need not be repeated in WAC 173- 303. Specific concerns are addressed in the comments below.

Shipping Paper Certification Statements and Electronic Signatures:

49 CFR 172.204 states in part *“(a) General. Except as provided in paragraphs (b) and (c) of this section, each person who offers a hazardous material for transportation shall certify that the material is offered for transportation in accordance with this subchapter by printing (manually or mechanically) on the shipping paper containing the required shipping description the certification contained in paragraph (a)(1) of this section or the certification (declaration) containing the language contained in paragraph (a)(2) of this section For transportation by rail only, the certification may be received verbally or with an electronic signature in conformance with paragraphs (a)(3)(i) and (a)(3)(ii) of this section. ”* 49 CFR 172.204(d) states, *“(d) Signature. The certifications required by paragraph (a) or (c) of this section: (1) Must be legibly signed by a principal, officer, partner, or employee of the shipper or his agent; and (2) May be legibly signed manually, by typewriter, or by other mechanical means. (3) For transportation by rail, when transmitted by telephone or electronically, the signature must be in one of the following forms: The name of the principal person, partner, officer, or employee of the offeror or his agent in a computer field defined for that purpose”*

49 CFR 177.817(b) also requires the Shippers certification to be on the shipping paper provided to the transporter.

COMMENT: As written, the proposed text may unintentionally result some shippers supplying a printed copy not fully in conformance with DOT Shipping Paper requirements. Rationale: The printed copy of the electronic manifest is identical to EPA Form 8700-22. This form does not contain the certification statement as required by 49 CFR 172.204(a).

COMMENT: As written the proposed text may unintentionally result in the Shipper's certification not being in conformance with DOT Shippers Certification requirements. Rationale: A printed copy of the e- Manifest, with electronic signatures, may be misunderstood to represent all the necessary shipping paper requirements, as the proposed language now reads. Electronic signatures are only authorized for shipments by rail.

EPA Frequently Asked Question #10 under "Federal and State Implementation":

At EPA's e-Manifest Frequently Asked Questions (FAQ) page (<https://www.epa.gov/e-manifest/frequent-questions-about-e-manifest#federal>), question 10 reads, "How will use of e-Manifest relate to Department of Transportation (DOT) hazardous material regulations (HMR) requirement to use a shipping paper?" The answer provided states, *"EPA is coordinating with DOT during the development of e-manifest. The system will allow a user to produce a manifest that satisfies the DOT HMR requirement for a shipping paper. One key point is that DOT currently requires that a hard copy shipping paper be placed in the cab of the transport vehicle during transportation. Therefore, handlers using e-Manifest will still need to comply with that requirement (e.g., print the manifest from the e-Manifest system)."*

COMMENT: 49 CFR 171.8 defines a "Shipping Paper" as "Shipping paper means a shipping order, bill of lading, manifest or other shipping document serving a similar purpose and prepared in accordance with subpart C of part 172 of this chapter." Thus, a shipping paper is not limited to a printed copy of an e-Manifest. If a printed copy of the e-Manifest is used, it must contain all the required elements of 49 CFR 172 Subpart C to be considered a "Shipping Paper". Although a hazardous waste manifest is required, it may not necessarily be the document that is considered the official "Shipping Paper". As written, the proposed text appears to limit the use of a printed e-Manifest as the only option for use as a "Shipping Paper".

COMMENT: As written, the proposed text indicates, *"...a generator originating an electronic manifest must also provide the initial transporter with one printed copy of the electronic manifest."* This could be interpreted as a requirement as written. Rationale: Close examination of EPA's FAQ answer, in conjunction with the requirements of 49 CFR Subpart C, indicate that the printout of the e-Manifest is identified as one example of a document that may be used to satisfy shipping paper requirements. As indicated in comment 2 above, a printed copy of the e-Manifest does not contain all the required information (e.g., certification statement) and could only partially satisfy the HMR shipping paper requirement. (The above comment relates).

COMMENT: The intent to assure a printed copy of the e-Manifest is supplied to the transporter, if it is being used to as a shipping paper per 49 CFR 172 Subpart C, has been communicated to stakeholders by EPA throughout development of the e-Manifest system. EPA has provided guidance to industry users to assure the 49 CFR 177.817 requirements are met. This provides a measure of confidence that printed copies will be provided to transporters as required and that this requirement need not be repeated in the WAC. Apparent Conflict with 40 CFR 262.24(a) and WAC 173-303-180(9) 40 CFR 262.24(a) states in part, "(a) Legal equivalence to paper manifests. Electronic manifests that are obtained, completed, and transmitted in accordance 40 CFR 262.20(a)(3), and used in accordance with this section in lieu of EPA Forms 8700-22 and 8700-22A are the legal equivalent of paper manifest forms bearing handwritten signatures, and satisfy for all purposes any requirement in these regulations to obtain, complete, sign, provide, use, or retain a manifest. (1) Any requirement in these regulations to sign a manifest or manifest certification by hand, or to obtain a handwritten signature, is satisfied by signing with or obtaining a valid and enforceable electronic signature within the meaning of 262.25. (2) Any requirement in these regulations to give provide send, forward, or return to another person a copy of the manifest is satisfied when an electronic manifest is transmitted to the other person by

submission to the system." WAC 173-303-180(10)(a)(2) repeats 40 CFR 262.24(a)(2) requirements.

COMMENT: As written, the proposed text reads in part, *"In addition, the one printed copy of the electronic manifest must provide the information required in subsection (6) of this section for state-only dangerous waste that designates only by the criteria under WAC 173-303-100 and as state listed WPCB and WSC2."* This appears to conflict with 40 CFR 262.24(a)(2). It is unclear if the Washington Department of Ecology intended to depart from 40 CFR 262.24(a)(2) EPA's intent to have a paperless manifest system in accordance with the Hazardous Waste Electronic Manifest Establishment Act (Public Law 112-195). It is understood that the intent of the Act would also include all waste subject to hazardous waste manifesting requirements including state-only dangerous waste. State-Only Waste Codes Already E-Manifest, State Requirements Can Be Entered Into System: The second portion of the proposed text at WAC 173-303-180(10)(d) indicates that a printed copy of an eManifest is necessary to identify those state-only wastes identified under WAC 173-303-100, WSC2 and WPCB wastes.

COMMENT: The e-Manifest system accommodates Washington state-only dangerous waste codes. Thus, the data requested by WAC 173-303-180(10)(d) is incorporated into the e-Manifest system. Further, most data fields, including Proper Shipping Name, etc. allow for the user to enter and/or edit data to be as specific to the waste as required. This ability allows the e-Manifest to capture the desired information as well as additional information in WAC 173-303-180(6) (see comment below).

Alignment with WAC 173-303-180(6):

WAC 173-303-180(6) reads, *"(6)Special instructions for state-only dangerous waste that designates only by the criteria under WAC 173-303-100 and is not regulated as a hazardous waste under 40 CFR Part 261 or as a hazardous material under the 49 CFR hazardous material regulations. For purposes of completing the uniform hazardous waste manifest, Item 9b, and Item 28 if continuation sheet 8700-224 is used, or to describe a state-only dangerous waste on a shipping paper: the shipping description must include the following in sequence with no additional information interspersed (a) Material Not Regulated by DOT; (b) Washington State Dangerous Waste Only followed by the appropriate criteria designation of the waste that is either toxic, persistent, solid corrosive or a combination of these entered in parentheses; (c) Shipping description examples: Material Not Regulated by DOT (Washington State Dangerous Waste Only, Toxic); Material Not Regulated by DOT (Washington State Dangerous Waste Only, Toxic, Persistent); Material Not Regulated by DOT (Washington State Dangerous Waste Only, Solid Corrosive)."*

The proposed text at 173-303-180(10) reads in part, *"In addition, the one printed copy of the electronic manifest must provide the information required in subsection (6) of this section for state-only dangerous waste that designates only by the criteria under WAC 173-303-100 and as state listed WPCB and WSC2."*

COMMENT: As written, it appears the intent of the proposed text at WAC would better be relocated to WAC 173-303-180(6). Rationale: This would appear to meet the Department of Ecology's intent to provide proper documentation to the transporter for state only wastes.

COMMENT: The following text modification is recommended:

a) Delete proposed WAC 173-303-180(10).

b) Amend WAC 173-303-180(6) to read as follows, "(6) *Special instructions for state-only dangerous waste that designates only under WAC 173-303-090(6)(b)(ii), by the criteria under WAC 173-303- 100 or state sources, WPCB, under WAC 173-303-9904 and is not regulated as a hazardous waste under 40 CFR Part 261 or as a hazardous material under the 49 CFR hazardous material regulations. (a) For purposes of completing the uniform hazardous waste manifest (EPA Form 8700-22), Item 9b, and item 28 if continuation sheet (EPA Form 8700-22A) is used, or to describe a state-only dangerous waste on a shipping paper, the shipping description must include the following in sequence with no additional information interspersed: (i) Material Not Regulated by DOT; (ii) "Washington State Dangerous Waste Only" followed by the appropriate ~~criteria~~ designation of the waste that is either toxic, persistent, solid corrosive, state-only PCB combination of these entered in parentheses; (iii) Shipping description examples: Material Not Regulated by DOT (Washington State Dangerous Waste Only, Toxic), Material Not Regulated by DOT (Washington State Dangerous Waste Only, Toxic, Persistent), Material Not Regulated by DOT (Washington State Dangerous Waste Only, Solid Corrosive) Material Not Regulated by DOT (Washington State Dangerous Waste Only, State-Only PCB. (b) If an electronic manifest is use in lieu EPA Form 8700-22 and EPA Form 8700-22A (if required), per WAC 173-303-180(9), the information from (a) of this section will be entered into the corresponding electronic manifest data fields (c) If a shipping paper is not required by 49 CFR the information of (a) of this section shall be included in shipping documentation (e.g. bill of lading, etc.) provided to the initial transporter to accompany the shipment."*

Commenter: Joseph Kohler - Comment I-4-1

Please see attached. The attached document provides amended comments. (Editor note: the additional comments in this second Joseph Kohler letter have been placed in the above comments from Mr. Kohler.)

Response to manifests

One commenter (comment: I-3-1) stated the requirement to provide a Shipping Paper per 49 CFR 177.817 has existed prior to the advent of the e-Manifest system and the requirements contained therein need not be repeated in WAC 173- 303.

In response, the regulations for paper manifests and for e-manifests were written in a collaborative efforts by the federal EPA and federal DOT. Ecology is adopting the e-manifest regulations as written with additional rules to accommodate any state only dangerous wastes that are manifested. As such, Ecology cannot remove the shipping paper requirements from the state regulations and remain equivalent to EPA's RCRA program.

Comments on solvent-contaminated wipes

Commenter: Paul Martin - Comment B-3-1

173-303-040 "No free liquids". Applicable text: "...and that there is no free liquid in the container holding the wipes." Comment: CHPRC has reviewed Ecology' Response to Comments (B-6-5) and is still not in favor of this proposed change because the definition of "No free liquids" under this exclusion is essentially unworkable. The last phrase of the definition states, "...and that there is no free liquid in the container holding the wipes". As written, how will a generator know if any amount of liquid, e.g., a miniscule amount but still a free liquid, has been released from the wipes after the container has been filled and closed? Does Ecology expect generators to open full containers of wipes on some frequency while accumulating, or before shipment remove the wipes from the container, and confirm no free liquids in the bottom of the container? As proposed, a single drop of liquid would be a violation. Since this relates to the prohibition on liquids in landfills, could the wording be amended to clarify that the last phrase ("and that there is no free liquid in the container holding the wipes") applies if the wipes are being sent for land disposal? If the wipes are being sent to a laundry service, conducting an initial paint filter test would suffice.

Commenter: Anthony McKarns - Comment A-2-4

Editor note: This comment was also received separately from CHPRC and repeated verbatim in this DOE submission, so it is deleted from this summary.

Response to solvent-contaminated wipes

Issue: Difficulties with no free liquids rule. Two commenters are not in favor of the definition for “no free liquids” and had several questions. How will a generator know if any amount of liquid, e.g., a miniscule amount but still a free liquid, has been released from the wipes after the container has been filled and closed? They also asked if Ecology expects generators to open full containers of wipes on some frequency while accumulating, or before shipment remove the wipes from the container, and confirm no free liquids in the bottom of the container. Finally the commenter suggests that if the wipes are being sent to a laundry service, conducting an initial paint filter test would suffice.

Issue response: The “no free liquids” rule is a RCRA requirement for generators taking advantage of the contaminated-solvents exclusion. The commenter can read the detailed discussion on this topic in the federal preamble to this rule (78 *FR* 46448) to gain insight. Regarding methods for confirming the presence of free liquids, under the less stringent and optional federal wipes rule the generator is expected to confirm the container of solvent contaminated rags contain no free liquids at the point of transportation off site to a facility for cleaning or for disposal; as well as prior to entering an on-site cleaning unit. In reading the *Federal Register* mentioned above, it is clear that generators can use a method that works best for their facility to determine if free liquids are present. Regarding the suggestion to only conduct an initial paint filter test, this would not be appropriate or meet the intent of the rule. EPA

reasons that over time liquids may accumulate at the bottom of the container and be passed onto the disposal facility or cleaning facility/unit for dangerous waste management. Those facilities would then be responsible for related costs of treatment and disposal.

Comments on unclassified

Commenter: Dan Booher – Comment B-1-1

We are a small business that uses Acetone and Isopropyl Alcohol to clean optical devices used in military and commercial communication devices. Our waste removal company repurposes our solvents by selling it to a cement manufacturer. They burn the solvent in their kilns to make cement. They are repurposing our waste and using it as fuel. However we receive zero credit for recycling. Isn't this the very definition of recycling? I.e. the action or process of converting waste into a reusable material. waste-fuel-cement. Our waste is being reused as a fuel. It is my belief that solvent waste which is pure enough to be repurposed as a fuel, should be eligible for a deduction credit of at least 50% for being repurposed. Thank you for your consideration on this matter.

Commenter: Steve Shestag - Comment B-5-1

The Boeing Company has reviewed the proposed dangerous waste rule revisions issued in August 2018, and offers comments and suggestions below. Boeing operates multiple dangerous waste generator locations in Washington, including some small quantity generator sites. For this reason, we support the adoption of the federal Episodic Generation rules and Waste Consolidation rules.

Commenter: Anthony McKarns - Comment A-2-1

A phase-in period is needed for the upcoming dangerous waste regulation changes. When EPA issued the generator improvement rule (11/28/16) a six-month phase-in period was included. A similar phase-in should be incorporated into the dangerous waste rule change. The proposed rule change imposes contingency plan requirements on large quantity generator satellite accumulation areas. For a large Facility such as the Hanford Site, this change requires preparation of substantial documents as well as emergency coordinator training. A reasonable amount of time should be allocated to carry out these activities. The Hanford facility has many satellite accumulation areas spread out over a large geographical area. In some situations, satellite accumulation areas may be 30 miles from the nearest central accumulation area. It is not feasible to incorporate satellite accumulation area emergency procedure information into an existing contingency plan (i.e., different evacuation routes, different emergency equipment lists, different emergency coordinators, etc.). Therefore, separate contingency plan documentation will need to be prepared. One of Hanford's contractors anticipates having to prepare 30 satellite accumulation area contingency plan documents. Also, emergency coordinators do not currently exist for many satellite accumulation areas. Satellite accumulation area emergency coordinator responsibilities will need to be assigned and will need to receive emergency procedure training.

Response to unclassified

Issue one: Recycling credits. Comment B-1-1 is asking for recycling credits for selling their spent dangerous waste solvent to a cement manufacturer who in turn burns the solvents in a cement kiln as a fuel.

Response to issue one: Under the recycling credit rules, only certain types of “recycling” is given credit. Burning spent dangerous waste solvents is not a type of activity given credit. The recycling credit allowance is not within the scope of the Dangerous Waste Regulations or this rule making.

Issue two: Support for optional rules.

Response to issue two. Thank you for **supporting** the adoption of these beneficial optional regulations.

Issue three: Request to extend the effective date of regulations. Commenters (see A-2-1) requested a phase-in period as needed for the upcoming dangerous waste regulation changes. This extra time is to provide training, amend contingency plans, and make other adjustments to come into compliance.

Response to issue three: Ecology agrees that additional time is needed to prepare for these rule changes. The effective date of the regulations will be extended 90 days. We note that EPA gave an effective date 6 months after adoption.

Comments on container inspection

Commenter: Paul Martin - Comment B-3-6

630(5), Use and management of containers, p. 241, 298, 690

Applicable Text: "...allow for complete inspection of each container..."

Comment: CHPRC appreciates that Ecology will revisit the term "completely" and use a word that will be taken literally.

Commenter: Paul Martin - Comment B-3-7

173-303-630. Use and management of containers. (2) Condition of containers Applicable text: (e.g., severe corroding, severe rusting, flaking, scaling, and/or apparent structural defects)

Comment: (e.g., severe corroding, severe rusting, flaking, scaling, and/or apparent structural defects) appearance of flaking, e.g., a drum's condition is determined by its current integrity and not the appearance of flakes. And CHPRC did not disagree with the overall intent of the wording; we were just concerned that the adjective "severe" was only associated with corrosion and rusting and not flaking or scaling. This would imply that any amount of flaking or scaling is an example of a container not being in good condition, which is not always the case. CHPRC again recommends the following: (e.g. severe corroding, severe rusting, severe flaking, severe scaling, apparent structural defects)

Commenter: Anthony McKarns - Comment A-2-13

Comment from CHPRC: 630, (2) Condition of containers, p. 240, 275, 297, 687

Applicable Text: (e.g., severe corroding, severe rusting, flaking, scaling, and/or apparent structural defects)

Comment: CHPRC is still not in favor of this proposed change. Ecology's Response to Comments (B-6-18) stated that this change is needed due to generators arguing that containers are in "good condition" although piles of metal flakes are seen around severely flaking containers. The presence of metal flakes does not necessarily mean a container is no longer in good condition especially when a steel container retains over an 1/4 of an inch of thickness and the flaking can be attributed to being retrieved from a burial ground where metal from other deteriorating containers precipitates on a container, giving it the appearance of flaking, e.g., a drum's condition is determined by its current integrity and not the appearance of flakes. And CHPRC did not disagree with the overall intent of the wording; we were just concerned that the adjective "severe" was only associated with corrosion and rusting and not with flaking or scaling. This would imply that any amount of flaking or any amount of scaling is an example of a container not being in good condition, which is not always the case. CHPRC again recommends the following: (e.g. severe corroding, severe rusting, severe flaking, severe scaling, apparent structural defects)

Commenter: Anthony McKarns - Comment A-2-17

Additional DOE comments:

WAC 173-303-180(10)(a)(i) MANIFEST PAGE 103: "Any requirement in this section to sign a manifest or manifest certification by hand, or to obtain a handwritten signature, is satisfied by signing with or obtaining a valid and enforceable electronic signature within the meaning of subsection (11) of this section."

See Also - WAC 173-303-200(d) "...The generator must keep a written or electronic inspection log including at least the date and time of the inspection, the printed name and the handwritten or electronic signature of the inspector, a notation of the observations made and the date and nature of any repairs or remedial actions taken."

How do these modifications impact the disagreement regarding requirement to have a "written name?" Is that now moot?

Response to container inspection

Support of rule change. Two commenters (comments: B-3-6, I-6-1) appreciates that Ecology will revisit the term "completely" and use a word that will be taken literally.

Response: Ecology notes your appreciation of the intended rewording. The final rule at WAC 173-303-630(5) replaces the word "completely" with "unobstructed" and believes this is a workable and understandable term in the context of container inspections.

Issue one: Container inspection criteria. Commenters disagree with the overall intent of the wording for container inspections and are concerned that the adjective "severe" was only

associated with corrosion and rusting and not flaking or scaling. This would imply that any amount of flaking or scaling is an example of a container not being in good condition, which is not always the case. The commenters recommend the following language: (e.g. severe corroding, severe rusting, severe flaking, severe scaling, and apparent structural defects)

Response to issue one: Ecology agrees that the adjective “severe” should apply to each container condition criteria. In the final rule the word “severe” will apply to each of the criteria, to read “severe corroding or rusting or flaking or scaling, and/or apparent structural defects”. We believe this is grammatically correct and means severe applies to each criteria.

Issue two: Weekly inspection signatures. One commenter (comment: A-2-17) asks how e-manifest rule changes (regarding electronic signatures of manifests) will impact the requirement for LQGs to use a written name on weekly inspection logs.

Response to issue two: The e-manifest and LQG rule are used separately and are independent from each other, so the one does not impact the other. At WAC 173-303-200(3)(d), Ecology is allowing use of an electronic signature on inspection logs. The expectation is that this signature will be the full written name of the inspector, not just initials. The manifest regulation cited is a joint EPA/DOT requirement for manifesting and considered a generator’s independent requirement. The rule cited is one used by the generator to be exempt from a storage permit. Independently, electronic signatures are allowed. A generator may have an electronic signature to comply with their manifesting requirements and at the same time have a handwritten (“ink”) or an electronic signature for an inspection log and remain in compliance with each rule.

Comments on hazard labels

Commenter: Douglas Gallucci - Comment I-6-3

The same document states that main rationale for the change is: "Ecology inspectors have observed signs that do not adequately communicate the hazards associated with hazardous wastes at a safe distance. Better knowledge of waste hazards would allow staff and the public to appropriately handle wastes, avoid contact, and deal with exposure to toxic, reactive, or corrosive wastes." (pg. viii) First of all, when asked, they have not been able to site one example of where a better label visible at 25 feet would have prevented any incident or exposure. In over 25 years at the UW, we have never had a situation where one of our current hazardous waste labels font size has impacted the safety of staff, emergency responders or the public. We have trained and worked closely with emergency responders. Never has the font size (or the use of DOT labels) ever been mentioned as a concern or a worry to emergency responders. In fact, the regulations already provide require stringent container type, packaging, closure and storage requirements that provide more than adequate protection for staff and the public at ranges of 25 feet or less. Furthermore, the dismissal of approved labeling from PHMSA DOT or OSHA GHS regulations (i.e. "class 9" or the majority of the GHS labeling that doesn't depict something as flammable or corrosive), which have been designed with the intent to properly protect staff, emergency responders or consumers (i.e., the public) is rather pretentious and would require additional contradictory training to explain why something that is a compressed gas,

environmental hazardous or has mutagenic properties be labeled and classified as only flammable, toxic, reactive or corrosive.

Commenter: Paul Martin - Comment B-3-5

173-303-174(1) (f)(i-ii), And associated citations at: 173-303-200(6)(b), 173-303-200(7)(a) and b)(ii), 173-303-200(13)(a)(iv)(C), 173-303-240(6)(i)

Applicable text: (f) Container labeling or marking. A generator must clearly label or mark each container of dangerous waste with the following: (i) The words "dangerous waste" or "hazardous waste" where the label or marking is legible from a distance of 25 feet or the lettering size is a minimum of one half inch in height. (ii) An indication of the hazards of the contents (examples include, but not limited to, the applicable dangerous waste characteristic(s) and criteria of ignitable, corrosive, reactive and toxic and the applicable hazard(s) identified for listed dangerous wastes). The label or marking must be: (D) Legible and/or recognizable from a distance of 25 feet or the lettering size is a minimum of one half inch in height, and (E) Understandable to employees, emergency response personnel, the public and other visitors to the site.

Comment: CHPRC has reviewed Ecology's Response to Comments and is still not in favor of this proposed change because Ecology's additional requirements and deletion of EPA's clarifying language has made the implementation unworkable. The proposed wording states, "example includes, but is not limited to, the applicable dangerous waste characteristic(s) and criteria of ignitable, corrosive, reactive and toxic and the applicable hazard(s) identified for listed dangerous wastes)". CHPRC agrees that if a waste exhibits the characteristic of ignitability, corrosivity or reactivity, e.g., D001, D002 and D003, those waste should have the applicable ignitable (or flammable), corrosive (or acid or base) or reactive hazard labels. And if a waste exhibits the toxicity characteristics of D004 to D043, those waste should have the applicable toxic hazard label if the waste actually exhibits the applicable characteristics. However, applying the same logic to listed waste is not appropriate. As stated by EPA in their document, "Introduction to Hazardous Waste Identification", EPA530-K-05-012, dated September 2005: *"Before listing any waste as hazardous, the Agency developed a set of criteria to use as a guide when determining whether or not a waste should be listed. These listing criteria provide a consistent frame of reference when EPA considers listing a wastestream. Remember that EPA only uses these criteria when evaluating whether to list a waste; the listing criteria are not used by waste handlers, who refer to the actual hazardous waste lists for hazardous waste identification purposes."*

Based on the above, the hazard labeling as proposed by Ecology should accurately identify the actual hazards exhibited with a particular container of waste as opposed to referencing criteria that EPA used when evaluating whether to list a waste. Using the basis of the listing as opposed to the actual hazards present, or not present, could adversely impact emergency response efforts and endanger emergency responders, workers and the public due to unnecessary responses or evacuations based on incorrect or nonexistent hazards. Emergency response must be based on the actual hazards associated with listed dangerous waste codes which in some cases can be

negligible, as is the case with debris waste. If the waste debris exhibits a characteristic, then it should be labeled with that hazard. However, if the debris (or soil) is a listed hazardous waste only due to contact with some other waste that carried a listed hazardous waste code via the mixtures, derived from or contained-in rules, but the debris itself does not exhibit a characteristic for dangerous waste, the waste should not be identified with a nonexistent actual hazard. And concerning Washington State Criteria and specifically WT02, Ecology's proposed hazard labeling system would require dangerous waste codes with WT02 to be labeled as "Toxic". An example of WT02 is simple table salt. It is accepted that under Ecology's rules, a material like table salt is a dangerous waste due to fish toxicity; however, to label a material this innocuous to humans as "Toxic" is misleading and potential dangerous to emergency responders and the general public, e.g., unnecessary responses or evacuations based on incorrect or nonexistent hazards. The containers will still be labeled "Hazardous Waste" or "Dangerous Waste" which would communicate an appropriate level of response. And the general public would have the same reaction to a container marked "Dangerous Waste" as they would to a container marked "Dangerous Waste" and "Toxic" – keep your distance and call the authorities. And as CHPRC stated in the first round of comments but to capture those points again in summary:

- The general public has no access to the Hanford site which is physically separate from the surrounding cities and access is controlled 24 hours per day and 7 days per week. Therefore, excluding EPA's other options for hazard labeling due to a concern that the general public will not understand the hazard communication, is not applicable. If Ecology does not allow the use of DOT hazard labeling it will increase the cost of Hanford cleanup with no environmental benefit.
- Ecology's proposed regulations do not include the references to DOT, OSHA, which includes the Global Harmonized System (GHS), or NFPA. However, Ecology's proposed regulations also do not prohibit the use of these nationally recognized systems, except that Ecology added that the hazard labels must be "understandable" to employees, emergency responders, waste handlers (whom are also employees), the public and visitors. CHPRC noted that Ecology's Response to Comments (B-6-11) stated that Ecology is revisiting the term "understandable" and it is appreciated.
- Another point to reiterate is that EPA stated in the Federal Register for the Generator Improvements Rule, that EPA "...is providing flexibility to generators in how they identify hazardous of the hazardous waste in the container, and using DOT hazard communication such as hazard class labels (or placards, if appropriate) is one option for complying with this requirement. ..." Based upon the above, CHPRC recommends adoption of the equivalent federal requirement wording at 40 CFR 262.15 and updating WAC 173- 303-630(3) and all other sections referencing hazard labels to read as: "Clearly label or mark containers with an indication of the actual hazards of the contents (examples include, but are not limited to, the exhibited dangerous waste characteristic(s) and criteria of ignitable, corrosive, reactive and toxic, and the exhibited characteristic hazard(s) for listed dangerous wastes; or applicable DOT, OSHA or NFPA labels, or any nationally recognized system that communicates the hazard(s)). The label or marking must be legible and/or recognizable from a distance of 25 feet or the lettering size is a minimum of one half inch in height.

Commenter: Selin Hoboy - Comment B-4-1

Stericycle submitted comments on December 19, 2017 to the regulations proposed at that time. Our main concern was related to the labeling requirements of containers of dangerous waste. We are still concerned with Ecology's response to our comments and the many others that voiced similar concerns with the labeling requirements. We appreciate Ecology's clarification that the vast majority of DOT, OSHA, or NFPA labels will meet their requirements and could be used. However, it is the requirement that still exists for WT02/toxic wastes that continues to present a concern. For example, many wastes qualify as WT02 toxic but do not meet a hazard classification other than perhaps class 9 under DOT. Having the word "toxic" on a label for such a container, but not the class 6.1 DOT toxic label, as it would not be required by DOT for many WT02 materials, could be confusing and contradictory to haulers, DOT inspectors, disposal facilities, and others that play an important role in the management of these wastes. However, Ecology continues to claim that this extraneous requirement is to provide information to the public in order to keep them safe. Stericycle believes that the existing Federal labeling requirements adequately protect the public, especially considering that the general public would typically have no exposure or opportunity to access, handle, or be near these containers in the first place. It is unreasonable to establish these additional labeling requirements that will cause substantial handling and compliance challenges for the industry users that manage waste on a daily basis, and provide minimal additional benefit to the protection of the public. The existing requirements to have the words "hazardous waste" or "dangerous waste" on the containers is more than enough information for a member of the general public to know to stay away from such a container. Lastly, considering much of the hazardous or dangerous waste generated in the state is shipped across state lines for treatment, it risks confusion in those other states. In some instances, when we have encountered labeling as a problem, we were told that we would have to keep the labeling while in storage, prior to transport, and if we needed to, we could remove the labeling for transport; the containers must then be again labeled when in storage at another storage area (like a TSD). This becomes very confusing for the generator and the TSD. Additionally, this results in multiple parties handling the waste, risk of spillage, and still the risk for human error, risking compliance (either forgetting to remove the labeling or putting it back on, etc.) all without any true health and safety benefit to anyone, including the general public. Proper marking and labeling of hazardous materials intended for transport should be marked/labeled at the time they are prepared and should remain as such throughout the transport process until final disposal per the Federal EPA and DOT PHMSA regulations.

Commenter: Steve Shestag - Comment B-5-3

Container and Tank Hazard Labeling. Throughout the proposed rule, the hazard/risk labeling language found in the existing Washington rule¹ is proposed to be modified in a manner which introduces new ambiguities and opportunities for varying interpretation by generators and inspectors. By contrast, the hazard labeling requirements in the federal Generator Improvements Rule provide a safe harbor, so that generators who follow the detailed hazard warning provisions of DOT, OSHA, or NFPA have a definitive basis for determining that the hazard label is

compliant. The federal rule applies the following hazard labeling language for each category of waste generators:

"...marks its container(s) of hazardous waste with (1) The words "Hazardous Waste" and (2) An indication of the hazards of the contents (examples include, but are not limited to, the applicable hazardous waste characteristic(s) (i.e- ignitable, corrosive, reactive, toxic); hazard communication consistent with the Department of Transportation requirements at 49 CFR part 172 subpart E (labeling) or subpart F (placarding); a hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard Communication Standard at 29 CFR 1910.1200; or a chemical hazard label consistent with the National Fire Protection Association code 704)."

Hazard marking instructions in the proposed Washington rule² incorporate the federal examples of "ignitable, corrosive, reactive, toxic" labels, but omit the other hazard communication options (DOT, OSHA, and NFPA) found in the federal rule.

Leaving OSHA and NFPA hazard markings aside for a moment, we would like to focus on the adequacy of DOT hazard labels. For DOT hazard classes 1 through 8, the pictograms, label colors, and text on the DOT label convey the type of hazard more graphically and with more precision than the broad RCRA characteristic words "ignitable," "corrosive," "reactive," and "toxic". At minimum, the text of Ecology's rule should plainly indicate that the DOT labels for hazard classes 1 through 8 are acceptable.

With respect DOT hazard class 9, the practice of using the DOT system, without modification, as a risk communication method is not only allowed by the federal rule, but is encouraged by EPA for its obvious benefit and streamlining of waste accumulation and shipping processes. As noted in the preamble to the final federal rule:

" ..as a matter of practicality, it would benefit many generators to consider the use of DOT hazard communication, since such a method would not only satisfy EPA's requirement, but it may also satisfy DOT requirements when the wastes are shipped off site... It is important to note that if generators choose to identify the hazards of the contents of their containers using the DOT, OSHA or NFPA labeling methods, those methods must be used appropriately. Furthermore, if a method other than DOT hazard communication is used while the waste is accumulating on site, when the waste is shipped off site, generators and transporters must ensure that those markings and labels are located away from and do not obscure DOT marking and labeling."³

Ecology's Summary of proposed Amendments states that "Some labels, such as US DOT's Class 9 label, do not say what the hazard is. We are not specifying US DOT Or other labeling systems to avoid implying any and all labels are adequate."⁴ EPA correctly states that under DOT rule 49 CFR 172.301(b) general marking requirements, a generator using a DOT shipping name ending in N.O.S. (as is common for Class 9 wastes) must also provide the technical name of the hazardous material in association with the proper shipping name. This technical name provides information that will signal hazard type to employees who generate the dangerous waste, trained

first responders, inspectors, and TSO contractors who are familiar with wastes that they encounter on the job.

Requiring a supplemental hazard warning on DOT Class 9 waste containers/tanks presents a significant dilemma that is not addressed by the proposal. Specifically, first responders and others who are familiar with DOT hazard labels will recognize that a Class 9 label means that the contents of the container or tank do not meet any of the hazards described by DOT Classes 1 through 8 — indicating a that the risk to first responders is minimal although such "miscellaneous hazardous materials" might be "environmentally hazardous." In particular, state-only dangerous wastes that are neither RCRA characteristic nor DOT Class 1 through 8 might be "persistent" or "toxic" according to the dangerous waste rules, but applying a "toxic," "poison," — words which the DOT regulations reserve for use with DOT class 6 materials (49 CFR 172.544(b) -- or some similar hazard description to this container would be misleading to first responders. Whether a particular chemical is persistent to the environment or toxic to fish larvae is simply irrelevant to first responders. More importantly, applying a "toxic" or "poison" label to a container that does not meet the DOT toxic/poison criteria introduces an unnecessary risk of affecting the response to an emergency, by overstating the risk of approaching the incident, and delaying an effective response.

As noted in the federal EPA preamble discussed above, if Class 9 or state-only wastes are labeled on a generator site with words like "toxic" or "poison," the labels must be removed before shipping the waste off-site.⁵ DOT does not allow labels that might be confused for a DOT label.⁶ The words "toxic" and "poison" are both used by DOT for Class 6 materials that can be far more dangerous to first responders than a Class 9, state-only waste.

For the reasons described above, Boeing recommends that the Washington dangerous waste rules use the following hazard warning language in lieu of the language found in multiple locations in the August 2018 proposal:

"...marks each container or tank of hazardous or dangerous waste with (1) The words "Hazardous Waste" or "Dangerous Waste" and (2) An indication of the hazards of the contents (examples include, but are not limited to, the applicable hazardous waste characteristic(s) (i.e. ignitable, corrosive, reactive, toxic) that is legible and/or recognizable from a distance of 25 feet or the lettering size is a minimum of one half inch in height. Alternatively, in addition to the words "Hazardous Waste" or "Dangerous Waste," the generator may use a hazard warning consistent with the U.S. Department of Transportation requirements at 49 CFR part 172 subpart E (labeling) or subpart F (placarding) for DOT hazard classes 1 through 8."

If Ecology insists on supplementing the Class 9 labeling (and with respect to the labeling of state-only wastes that are not regulated by DOT), Ecology should consider provisions in the rule that will provide a clear safe harbor to generators through agreed allowable approaches to avoid future inconsistent practice by generators and inspectors. One possibility would be a compliance option stated in the rule that generators mark DOT hazard class 9 containers or tanks with a chemical hazard label based on National Fire Protection Association code 704, if such waste has an NFPA hazard rating higher than zero for health hazard, fire hazard, or reactivity. However,

we encourage direct Ecology engagement with first responder agencies prior to final rule promulgation, to ensure that the Dangerous Waste rules do not work at cross-purposes to effective first response to emergencies.

Footnotes

¹ At WAC 173-303-200(1)(d), the on-site accumulation rules for all generator categories.

² In the reorganized proposed rule, hazard marking requirements are repeated for each category of generators and for satellite accumulation areas,

³ 81 Fed. Reg. 85732, 85758 (November 28, 2016)

⁴ Page 1, Summary Of Proposed Amendments to the Dangerous Waste Regulations, Chapter 173-303 WAC August 2018, Publication 18-04-019.

⁵ 80 Fed. Reg. 57918, 57949 (September 25, 2015) "...for packages subject to 49 CFR, the generator or shipper/carrier should be familiar with and aware of the...prohibited labeling and label visibility requirements at 49 CFR 172.401 and 172.406, respectively."

⁶ 49 CFR 172.401 Prohibited Labeling: "(b) No person may offer for transportation and no carrier may transport a package bearing any marking or label which by its color, design, or shape could be confused with or conflict with a label prescribed by this part."

Commenter: Anthony McKarns - Comment A-2-8

Editor note: This comment was received separately from CHPRC and was repeated verbatim in this DOE submission, so it is deleted from this summary. Includes comments on: 173-303-174(1) (f)(i-ii), And associated citations at: 173-303- 200(6)(b), 173-303- 200(7)(a) and b)(ii), 173-303- 200(13)(a)(iv)(C), 173-303-240(6)(i)

Commenter: Anthony McKarns - Comment A-2-10

Comment from MSA: 173-303-200(7(a)(iii). The proposed rule requires the generator to

"clearly mark or label its containers.....With an indication of the hazards of the contents (examples include, but are not limited to, applicable dangerous waste characteristic(s) or criteria of ignitable, corrosive, reactive and toxic in the applicable hazard(s) identified for listed dangerous wastes)."

In some situations, a dangerous waste can have the F001 or F002 waste code (i.e., not F003) and the concentration of F001 or F002 constituent(s) can be extremely low. When the F001 or F002 constituent(s) concentration is extremely low, the waste does not present a toxicity hazard (e.g., a small amount of F001 or F002 coded waste is combined with a large amount of solid waste not containing F001 or F002 constituents). Question: Would Ecology expect the generator to apply a toxic hazard label on the container? Ecology's comment-response (July 2018, 18-04-006, page 3) focuses on a scenario associated with the F003 code. The F003 code addresses sources that exhibit the characteristic of ignitability. Under WAC 173-303-070(2)(c) a dangerous waste listed

in WAC 173-303-082(1) solely because it exhibits the characteristic of ignitability is not a dangerous waste if it no longer exhibits the characteristic of ignitability. Ecology's comment-response says it is okay to not put an ignitability hazard label on a container if the associated waste code no longer applies. The question being asked above is different. The above question addresses the application of a hazard label when the F-code still exists but the hazard does not.

Commenter: Aurana Lewis - Comment O-3-2

Comment: Hazardous and Dangerous Waste Labeling (non-mandated, state-only change)
Oppose. The proposed rule as written adds the additional requirement that hazard labels be:

- Legible and recognizable to the general public from 25 feet away, or have lettering at least a one half inch in height.
- Understandable to employees, emergency response personnel, the public and visitors.

It remains unclear why Washington State has proposed significantly more stringent labeling requirements, particularly banning the use of USDOT, OSHA, and NFPA labels as risk identification. The response to comments did not address why Ecology is requesting a unique labeling system or how that system would benefit the public or emergency responders. Ecology in its response to comments said "These [National] systems have some labels that do not clearly indicate the hazard of the materials being contained to inform or alert the public, employees, or all emergency personnel." However, these systems are the most commonly used way to depict risk, in any situation. In particular, DOT labels consistent nationally and internationally, potentially providing information to non-English speakers that words like "reactive" cannot. Employees, first responders, and the public may be more familiar with the commonly used markings than risk words and gain more specific safety information from them than risk words.

Response to hazard labels

Support of rule: One commenter (comment: B-4-1) appreciates Ecology's clarification that the vast majority of DOT, OSHA, or NFPA labels will meet their requirements and could be used.

Response: Thank you for your comment.

Support for rule: A commenter appreciates that Ecology is revisiting the term "understandable" in the hazard labeling rules.

Response: Thank you for your comment.

Issue one: Hazard labeling rule restricts use of DOT and OSHA Global Harmonization System (GHS) labels. Some commenters are concerned that the proposed hazard label rule doesn't allow use of certain labels, such as the U.S. DOT miscellaneous goods Class 9 label or OSHA GHS labels. They recommend that Ecology adopt RCRA hazard labeling language giving examples of acceptable hazard labeling systems, including US DOT, OSHA, and National Fire Protection Association diamonds. They argue that since these labeling systems are designed to protect hazardous waste workers and consumers, their use should be adequate in hazardous waste accumulation situations. Further, workers who know the US DOT system are aware of what the

Class 9 label represents in terms of hazard. A commenter recommended that we revise rule language to plainly indicate that the DOT labels for hazard classes 1 through 8 are acceptable.

Response to issue one: The agency has determined to keep the hazard labeling rule as proposed. The agency maintains that the public and site visitors will not adequately comprehend the hazard represented by the Class 9 label and a few of the OSHA GHS labels, and believes EPA’s intent is the hazard indication should be easily identified by anyone who may come near containers or tanks of dangerous waste. To be clear, Ecology is not preventing use of any hazard labeling systems, just because they are not used as examples in the rule. Ecology is adding generator flexibility to the rule in how generators can comply with hazard indication labeling. This flexibility is apparent in the proposed and in final rule language, with indication of hazards examples to “...include, but are not limited to, applicable dangerous waste characteristics of...” Also, the proposed rule at WAC 173-303-200(7)(a)(iii)(B) (and other locations) reads “Include descriptive word(s) and/or pictogram(s) that identifies the hazards associated with the contents of the containers for the public, emergency response personnel, and employees;” This rule language allows any hazard labeling system to be used, as long as it meets the criteria of the rule i.e. the label is understandable to anyone coming into contact or near contact with hazardous waste containers. Conceptually, the rule will even allow handwritten words or hand drawn pictograms on containers of dangerous waste. Regarding the rule revision recommendation, Ecology believes this could create the wrong impression in rule that only US DOT labels can be used and no other agency labeling systems or handwritten labels would be acceptable to meet labeling requirements.

Issue two: Use of “toxic” hazard label is not helpful and can cause confusion with emergency responders. Commenters believe that requiring use of the word “toxic” (as a hazard label) when it contradicts U.S. DOT Class 6 Poison or Toxic hazard labeling requirements is confusing and contradictory to waste haulers, US DOT inspectors, and TSD facility staff. They are concerned that applying a "toxic" or "poison" label to a container that does not meet the DOT class 6 criteria may affect the response to an emergency. Upon seeing a toxic label, first responders may think the waste is a Class 6 poison, overstate the risk of approaching the incident, and delay an effective response. Commenters also believe Class 9 labels adequately inform affected workers of the hazard. A related concern expressed by commenters is that US DOT regulations don’t allow other labels or markings to be on containers during transport if they obstruct or cause confusion with the required US DOT label. If Ecology requires use of hazard labels that cause confusion with US DOT required labels, Washington state required labels, such as the hazard word “toxic”, will need to be removed by the generator prior to transport, then reapplied at the destination facility. This will cause substantial handling and compliance challenges. Commenters believe that the federal hazard labeling rules adequately protect people likely to be exposed to dangerous waste containers, and there is no need to restrict use of certain labels, such as Class 9.

Response to issue two: In response to draft and formal comments, Ecology has considered possible first responder confusion and delayed response upon seeing the word “toxic” on a dangerous waste container. Conversations with Ecology spill responders indicate there could be

some confusion, but their knowledge (and hopefully other first responder's knowledge) of DOT Class 6 POISON or TOXIC labels appearance will clear up any mistaken identification. Ecology did make an effort to reach out to the Association of Fire Marshals and the Washington Fire Chiefs Association, but was not able to get their opinion on this matter. Also, when asked by EPA, emergency responders preferred to see hazard labels on containers of hazardous wastes over labeling containers with the identity of the contents.

It is important to clarify that DOT regulations don't apply to the on-site accumulation of federal hazardous waste and state dangerous waste. EPA, in the federal register preamble to the generator improvement rule, clearly stated DOT regulations only apply to the transportation of hazardous materials. Regarding use of non-DOT hazard labels on shipped hazardous waste containers, EPA also points out that if a method other than DOT hazard communication is used while the waste is accumulating on site, when the waste is shipped off site, generators and transporters must ensure that those labels are located away from and do not obscure DOT marking and labeling (FR 85758). Ecology's understanding (and inspector experience) is that applicable DOT regulations will allow non-DOT required labels to remain on dangerous waste containers during shipment, as long as those labels do not obscure or confuse the appropriate DOT label. Generators and TSDs can always choose to remove non-DOT hazard labels prior to shipment and reapply if they feel this is necessary.

It cannot be emphasized enough that the purpose of hazard labels for on-site accumulation of dangerous waste is not limited to informing an emergency response. Rather, and just as importantly, clear and understandable hazard labels are important for the day-to-day safe handling and management of dangerous waste containers and their contents. Ecology and EPA believe that it is important the employees, transporters, downstream handlers, emergency personnel, inspectors and site visitors know as much as possible about the potential hazards of dangerous waste containers being accumulated, and transported. EPA, in the preamble to the generator improvement rule, specifically identifies "toxic" as an example of a hazard. Hazard labels are also important to help ensure dangerous wastes are managed in an environmentally sound manner, protecting both human health and environment.

Issue three: Existing Federal hazard labeling requirements adequately protect the public.

Some commenters believe the general public typically is not exposed to hazardous waste because they are not allowed access to areas where hazardous waste is accumulated or stored. The public doesn't have opportunity to access, handle, or be near these containers in the first place. Further, the public would more easily recognize a label with the words "hazardous waste" and stay away from that container. Commenters assume the public would not understand what the word toxic implies. Commenters believe that the federal hazard labeling rules adequately protect the public, and there is no need to restrict use of certain labels.

Response to issue three: Ecology does not agree that the public would not typically be exposed or at risk from containers of dangerous waste. The public includes, but is not limited to, visitors to the site, such a repair person (e.g. an electrician or carpenter), inspectors, contractors, delivery persons, family members, stockholders, and others. Members of the public encounter many opportunities to be near waste containers, such as during maintenance, repair and delivery visits

to the site. Should an incident arise requiring evacuation, it would be these persons and employees who are likely to come into contact with dangerous waste containers. Ecology agrees first responders and DOT trained employees will understand the various DOT transportation labels, however, the “public” would not. Ecology believes these members of the public should be able to see adequate hazard labeling and have the choice to avoid waste containers, not putting themselves in harm’s way.

Some may assume that dangerous wastes which only designate under state toxic or persistent criteria don’t warrant the same hazard warning labels as federally designated wastes. It is true these wastes may not be acutely hazardous to humans, but they are likely to affect the state’s environment, such as aquatic life and other animal and plant ecosystems. Ecology is charged with protecting not only human health but also the health of Washington State’s environment. This legislated mandated has been carried out in the dangerous waste regulations through state-only toxic and persistent solid waste designation requirements.

Issue four: Listed wastes not exhibiting a characteristic don’t need a hazard label. A few commenters believe that if a listed dangerous waste, after testing, does not exhibit an ignitable, corrosive, reactive or toxic characteristic, then a hazard label is not needed.

Response to issue four: Ecology’s opinion is that if a listed dangerous waste does not exhibit the characteristic or criteria used by EPA as the basis for the listing, there is no need for that particular hazard to be displayed on the container. For example, listed waste K176 is listed due to failing the toxicity characteristic leaching procedure (TCLP) for arsenic and lead. If the generator, through their documentation, shows their K176 listed waste passes TCLP for both arsenic and lead, Ecology would not expect a toxic hazard label on the container. Another example is listed waste F005, which is listed due to toxicity and ignitability. If a generator’s F005 listed waste no longer exhibits the ignitability characteristic, and can support that claim with proper documentation, Ecology would not expect the generator to put an ignitability hazard label on the container. EPA Region 10 staff may have another interpretation on this question. Ecology is in the process of getting EPA’s response on this issue and will attempt to clarify it during any public training or guidance on these rule amendments.

Comments on satellite accumulation area

Commenter: Paul Martin - Comment B-3-8

Applicable text: Ecology stated (in informal response to comments): "As for SQGs, under current federal and state regulations, the satellite accumulation standards are not, and have not, been available for SQGs to practice. To allow SQGs to practice satellite accumulation would be less stringent than the federal RCRA program. In addition, current regulations (which are not proposed to change) allow SQGs to treat their own waste if they are also a permitted final or interim status facility, or permitted to manage municipal solid waste, or permitted to manage moderate risk waste. Sections -170 and -200 allow LQGs and MQGs to practice TBG. SQGs can't take advantage of this set of regulations. To allow this by rule would be less stringent than the federal RCRA program." (Emphasis added)

Comment: Ecology's statement that SQGs are not eligible to accumulate waste in satellite accumulation areas contradicts EPA guidance, "Hazardous Waste Generated in Laboratories", RO 14618 "Many of the hazardous wastes managed at academic institutions are produced and initially accumulated in research laboratories. The satellite accumulation provisions of 40 CFR 262.34(c) allow for reduced requirements for hazardous waste accumulated in containers at or near any point of generation. Both LQGs and SQGs may take advantage of the reduced requirements while hazardous waste is in satellite accumulation areas, such as laboratories, provided the waste is managed in accordance with the provisions of 40 CFR 262.34(c) (e.g., properly labeled)." Note that the above guidance would apply to any LQG or SQG and was written before the academic entities regulations at 40 CFR 262, Subpart K.

Commenter: Anthony McKarns - Comment A-2-6

PNNL comment. 173-303-040. The definition of "Satellite Accumulation" includes a reference to "a designated ninety-day accumulation area." This should be changed to "central accumulation area" to match other terminology in the regulations and to avoid a possible misunderstanding regarding whether MQGs can accumulate waste longer than 90 days.

Commenter: Anthony McKarns - Comment A-2-15

Editor note: This comment was received separately from CHPRC and was repeated verbatim in this DOE submission, so it is being deleted here.

Response to satellite accumulation area

Issue one: SQGs are not eligible to use satellite accumulation. One commenter from a private laboratory had a concern with a statement in Ecology's response to informal comments where we say that SQGs are not eligible to accumulate waste in satellite accumulation areas (SAA). The commenter believes this contradicts EPA guidance, "Hazardous Waste Generated in Laboratories."

Response to issue one: Ecology believes the commenter is misapplying the SAA rules and the acronym "SQG." Under the federal RCRA rules for very small quantity generators (VSQG) and under the state dangerous waste regulations for small quantity generators (SQG), the practice of satellite accumulation is not allowed. Under the state rule the acronym "SQG" refers to the smallest category of generator and is equivalent to the acronym "VSQG." On the federal level "SQG" refers to a regulated generator and is equivalent to an "MQG" on the state level. Unfortunately, the commenter miss applied the federal memo they cited. Ecology and EPA are in line with how SAA regulations are applied. With that said, under the federal Subpart K rule, which the state has adopted at WAC 173-303-235, any size of academic laboratory or generator may take advantage of this less stringent, optional rule. Under this rule, generator size is irrelevant within the academic laboratory setting and the waste management in the laboratory is managed under a "laboratory management plan." Finally, being a private laboratory, it should be

made clear the federal Subpart K and the State version of that rule (–) are not available to be used because those rules apply only to university academic laboratories.

Issue two: Error in definition of satellite accumulation. A commenter pointed out the definition of "Satellite Accumulation" includes a reference to "a designated ninety-day accumulation area." This should be changed to "central accumulation area" to match other terminology in the regulations and to avoid a possible misunderstanding regarding whether MQGs can accumulate waste longer than 90 days.

Response to issue two: In response, Ecology agrees with the comment and has addressed that issue in the final rule. Thank you.

Comments on weekly inspections

Commenter: Paul Martin - Comment B-3-2

173-303-040 Definitions. Applicable text: "Weekly inspections" means an inspection conducted no more than seven consecutive calendar days from the last inspection.

Comment: CHPRC noted in the Ecology's Response to Comments (B-6-8) that Ecology acknowledges concerns with the draft weekly inspection definition and will consider revising it to make weekly inspection compliance easier. CHPRC reiterates that EPA provided guidance to the phrase "at least weekly in the Response to Comments Document on the Hazardous Waste Generator Improvements Final Rule, Docket # EPA-HQ-RCRA-2012-0121. CHPRC hopes that Ecology aligns with EPA's guidance stating that: "The Agency believes the term "at least weekly" to mean "at least once each calendar week." Under this interpretation, while the calendar day an inspection could occur may change from week to week, one inspection would be required to occur within the calendar week as identified by the generator. Thus one generator could define their calendar week as Monday through Sunday while another generator could define their calendar week as Wednesday to Tuesday of the following week. Whatever the prescribed calendar week would dictate the days an inspection would be required to occur." The above wording would be compliant with the original intent of weekly inspections, i.e., looking for leaks and deterioration on a weekly basis will protect the environment and should not be a burden to generators.

Commenter: Anthony McKarns - Comment A-2-5

CHPRC comment. 173-303-040. Applicable Text: "Weekly inspections" means an inspection conducted no more than seven consecutive calendar days from the last inspection. Comment: CHPRC noted in the Ecology's Response to Comments (B-6-8) that Ecology acknowledges concerns with the draft weekly inspection definition and will consider revising it to make weekly inspection compliance easier. CHPRC reiterates that EPA provided guidance to the phrase "at least weekly in the Response to Comments Document on the Hazardous Waste Generator Improvements Final Rule, Docket # EPA-HQ-RCRA-2012-0121. CHPRC hopes that Ecology aligns with EPA's guidance stating that: "The Agency believes the term "at least weekly" to

mean "at least once each calendar week." Under this interpretation, while the calendar day an inspection could occur may change from week to week, one inspection would be required to occur within the calendar week as identified by the generator. Thus one generator could define their calendar week as Monday through Sunday while another generator could define their calendar week as Wednesday to Tuesday of the following week. Whatever the prescribed calendar week would dictate the days an inspection would be required to occur." The above wording would be compliant with the original intent of weekly inspections, i.e., looking for leaks and deterioration on a weekly basis will protect the environment should not be a burden to generators.

Response to weekly inspections

Commenters would like Ecology's definition of "weekly inspections" to align with EPA guidance. They suggest that the definition allow for an inspection to occur "at least once a calendar week", rather than as it was proposed in the draft rule as "...no more than seven consecutive calendar days from the last inspection."

Response: In the final rule, Ecology has amended the definition to read "Weekly inspections' means at least once during the period from Sunday to Saturday." Ecology believes that specifying in rule the start day and end day of the calendar week gives consistency in implementation, while allowing flexibility in meeting weekly inspections.

Comments on regulatory analysis

Commenter: Donald Johnson - Comment I-1-2

The labeling requirements for small containers are insane. This is poorly thought out. Your economic assessment is a joke, did you even do one. The cost for labeling and resizing containers will be costly for labs that generate small containers. You said this would help first responders. Did you even ask them about this. The small containers are of low hazard compared to drums and carboys. Promotes awareness! Really. Since when are visitors and non trained employees allowed near hazardous waste containers. Inspectors are accompanied by knowledgeable people who know the waste. This looks like it was written by someone with little or no field experience. Sad!

Commenter: Aurana Lewis - Comment O-3-3

Seattle City Light has concerns over two of the proposed additions to the EPA's Generator Improvement Rules final rule.

Comment: Discovery of Unknown Waste (non-mandated, state-only change)

Oppose. Ecology seriously over-reaches when it tries to add dangerous waste responsibility for "unknown material" on any member of the public discovering it, passerby, or victim of illegal dumping, or even on the owner or lessee of land. There is no precedent in dangerous waste or

solid waste law for this new, state-only idea. Suggest deleting these concepts from all parts of the draft. For example,

- delete "or who discovers an unknown material" from WAC 173-303-070(1)(b) -delete "or upon the discovery of an unknown material" from WAC 173-303-070(3), and
- delete "A generator that accumulates dangerous waste on site is a person that stores dangerous waste" from WAC 173-303-170.

"Any person," "unknown material" and "discovering" are too broad as well as vague.

Washington State prohibits depositing solid waste on property and the state statute requires the enforcement agency to do additional work to identify the person responsible rather than putting the burden on even the lessor or landowner. See RCW 70.95.240(5): *"When enforcing this section, the enforcing authority must take reasonable action to determine and identify the person responsible for illegally dumping solid waste before requiring the owner or lessee of the property where illegal dumping of solid waste has occurred to remove and properly dispose of the litter on the site."* Ecology wrote, inaccurately, that the "unknown waste" amendment is only a clarification with no material impact on requirements. Ecology made no revisions in response to the public's comments on the preliminary draft beyond clarifying that this regulation would apply to "unknown wastes not generated by the generator, but are abandoned on their property". The rule already requires action by generators, defined reasonably in federal and state law by what they have done in the past: "Generator" is "any person, by site, whose act or process produces dangerous waste or whose act first causes a dangerous waste to become subject to regulation.(40 CFR 262.10, WAC 173-303-040; see also 40 CFR 262.10: "Purpose, scope, and applicability. (a) These regulations establish standards for generators of hazardous waste...."). This is clearly an expansion of the regulation, placing heavy liability on person's who act or processes did not produce dangerous waste or cause it to become subject to regulation. Ecology failed to acknowledge or analyze any costs or benefits of the change in its Preliminary Regulatory Analysis. See Response Summary at 9-12, 63-67, and Preliminary Regulatory Analysis at 23, 43. The change would be an improper shortcut. The current homelessness crisis in Washington State continues to bring to public attention that it is no simple matter to properly regulate against illegal dumping and dangerous waste accumulations on public and private properties. There is no quick fix, and the Dangerous Waste rules are not the place. We would be happy to discuss our concerns by phone or in person at your convenience.

Commenter: Steve Shestak - Comment B-5-2

The Boeing Company has reviewed the proposed dangerous waste rule revisions issued in August 2018, and offers comments and suggestions below. Boeing operates multiple dangerous waste generator locations in Washington, including some small quantity generator sites. For this reason, we support the adoption of the federal Episodic Generation rules and Waste Consolidation rules. However, we have concerns with some of the Washington-unique variations from these rules and other provisions in the proposal. Boeing generates hazardous waste in other authorized states that have already adopted or are in the process of adopting the federal Hazardous Waste Generator Improvements Rule. Boeing-host states of Utah, Florida, and

Pennsylvania have adopted that rule without state-unique additions. Oklahoma, Illinois, and Hawaii have issued proposals to do the same. Other Boeing-host states are reviewing the rule and determining next steps. In all states where we generate hazardous wastes, Boeing is encouraging as much alignment with federal requirements as possible to minimize compliance confusion. State-unique requirements complicate and increase the costs of developing and updating employee training. Boeing sites in states that deviate significantly from federal rules must develop state-unique training supplements and compliance systems. Boeing employees who move or are temporarily assigned to a site in another state must "unlearn" state-unique requirements that were correct in their prior assignment and learn anew any state-unique requirements applicable to their new assignments. Internal compliance auditing is also complicated and more costly when authorized states in which Boeing operates have significantly different rules. The Washington Administrative Procedures Act (RCW 34.05.328) directs agencies to "coordinate the rule, to the maximum extent practicable, with other federal, state, and local laws applicable to the same activity or subject matter." Some of the state-unique provisions in the proposed dangerous waste revisions indicate that this statutory directive has not been observed. Specific examples are described below. In addition, the Administrative procedures Act requires the Department of Ecology, before adopting a rule, to "determine that the probable benefits of the rule are greater than its probable costs," [RCW 34.05.328(1)(d) and "that the rule being adopted is the least burdensome alternative for those required to comply with it that will achieve the general goals and specific objectives" [RCW 34.05.328(1)(e)]. In many of the cases described below, we believe that state-unique additions to the federal rule impose significant costs on dangerous waste generators without any demonstrated environmental benefit, and that the federal rules provide a less burdensome alternative than the corresponding provisions in the Washington proposed rule. Simply put, Ecology has no basis to conclude that its state-unique changes provide a net benefit or that the federal approach is not the least burdensome alternative. Ecology has only provided speculative hypotheticals, instead of data or even real-world anecdotal incidents, to presume benefits arising from these provisions, and has no idea of the resulting costs to generators.

Response to regulatory analysis

Issue one: Large costs to comply with new label size rule. One commenter (comment: I-1-2) expressed that the proposed container labeling criteria will create large costs for laboratories that generate small containers. They doubt that Ecology took these costs into consideration in the economic assessment. Further, they don't believe the label size rule is needed for small containers, since they present a low hazard compared to drums and carboys. Also, they don't agree that visitors and non-trained employees need to be aware of warning labels, stating that these people don't come near containers of dangerous waste.

Response to issue one: Ecology has considered similar comments about difficulties in meeting the label size rule for labeling small containers (especially those four liters and under). We acknowledge these difficulties, and are amending the labeling rule to apply only to containers greater than 1 gallon (or 4 liters). Containers less than 1gallon (or 4 liters) must be labeled with the required labeling and markings same as larger containers but sized appropriate to the

container size. We don't agree that small containers are necessarily of small risk, and it is important that labeling for small containers be readable. For one reason, some federal hazardous wastes and state dangerous wastes are fully regulated once 2.2 lbs. have been generated, due to their acute toxicity. Also, according to EPA, their expectations (although not a requirement) is that small containers, such as vials, are placed in a larger container to accommodate labeling requirements, adding additional safety in the form of secondary containment.

Regarding visitor's access to dangerous waste accumulation areas, in some cases visitors or non-trained staff will have access to containers of dangerous waste, especially in satellite accumulation situations. We agree access to central accumulation areas will normally be limited to trained staff, although in emergency response situations site visitors may be impacted. We have updated the Regulatory Analyses to reflect these more specific circumstances, and provide example compliance costs for a large facility with multiple small containers, as well as illustrative costs that such individuals might incur. The regulatory analyses also will factor in the labeling exception for small containers.

Issue two: Impacts from rule requiring designation of unknown wastes. A commenter believes that Ecology did not factor in the preliminary regulatory analyses costs of a new requirement for property owners to designate unknown wastes, especially wastes that are illegally dumped on a property. They state that "This is clearly an expansion of the regulation, placing heavy liability on person's who act or processes did not produce dangerous waste or cause it to become subject to regulation."

Response to issue two: Ecology continues to believe that property owners are responsible for management and designation of solid waste discovered on their site. The property owner or site operator bears the responsibility for the proper designation and cleanup of waste on their property, regardless whether they generated it or found it illegally placed on their property. We maintain this is a clarification to existing regulations without material impact, rather than a new requirement. While we understand that proper handling, transport, and disposal of dangerous wastes is costly, this clarification is not subject to analysis in the Regulatory Analyses, as it does not differ from the baseline.

Issue three: State-only rules are costly without any added environmental benefit. A commenter generates hazardous wastes in multiple states, and is concerned that Washington state additions to the generator improvement rule make compliance more difficult. They encourage as much alignment with federal requirements as possible to minimize compliance confusion. State-unique requirements complicate and increase the costs of developing and updating employee training. They believe that federal rules provide a less burdensome alternative than the corresponding provisions in the Washington proposed rule. The commenter states that Ecology has no basis to conclude that its state-unique changes provide a net benefit or that the federal approach is not the least burdensome alternative.

Response to issue three: We understand from commenters that it may be more costly (for businesses who operate in multiple states) to develop standard practices that differ across states based on state-specific regulations (such as Washington, Oregon and California). We believe,

however, this interstate variance for Washington State is part of the baseline, as existing dangerous waste regulations also differ from RCRA and other states. Washington state unique dangerous waste rule differences are also necessary to achieve the goals and objectives of the authorizing statute for the state. In support of that concept, the Washington State Dangerous Waste Regulations have a long history, dating back prior to RCRA. Some of those rules were created by our state legislature in the Hazardous Waste Management Act, Chapter 70.105 RCW (for example, the establishment of extremely hazardous waste). They mandated that Ecology promulgate rules for the protection of its residents and the environment. The RCRA program provides minimal standards to meet in managing hazardous waste on a national basis. WA State is a unique and diverse state with many diverse habitats and sensitive ecosystems, including Puget Sound and sensitive watersheds. In developing rules, Ecology must consider and be accountable to Washington State residents in protecting their health and the health of the environment.