U.S. Department of Energy (DOE) Hanford Site Contractor Comments on
Ecology's Preliminary Draft Rule Chapter 173-303 WAC Dangerous Waste Regulations

The following tables contain the DOE Hanford Site Contractor consolidated comments on Ecology's Preliminary Draft Rule Chapter 173-303 WAC Dangerous Waste Regulations. The first table provides comments for the Generator Improvement Rule (GIR) and the second table for the e-Manifest Rule. Comments are provided in order of the citation, and also reference the draft rule pdf page number, WAC citation, section title, and applicable text. Comments were provided by the following Hanford Site Contractors: Bechtel National Inc. (BNI) - Waste Treatment Plant (WTP), CH2MHill Plateau Remediation Company (CHPRC), Pacific Northwest National Laboratory (PNNL), Mission Support Alliance, LLC (MSA), and Washington River Protection Solution (WRPS).

Table 1. Generator Improvement Rule (GIR) Comments

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General	173-303-169 173-303-171 173-303-172 173-303-173 173-303-174 173-303-200 173-303-210	Reorganization of regulations	Not applicable	**CHPRC Comment 1:** CHPRC is in favor of this proposed change since it will align with the new format in the Federal Regulations.
General				**PNNL Comment:** Ecology proposes numerous state-specific deviations from the EPA Generator Improvements Rule (GIR) and other EPA programs throughout the pre-draft. Some of these changes are understandable based on existing State rules, e.g. use of terms "small quantity generators" and "medium quantity generators" versus EPA's "very small quantity generators" and "small quantity generators" to refer to generators of specified quantities of waste. However, in

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				numerous cases, Ecology proposes deviations from EPA programs that are unexplained in the documents accompanying the pre-draft language. These deviations should be sufficiently explained to show why Ecology believes they are necessary to protect human health and the environment, justifying the additional burden placed on generators in Washington State."
9	173-303-016(4)(d)(ii)	Identifying solid waste	-	**PNNL Comment 1:** Ecology proposes to add a requirement to place recyclable material in a "storage unit" and label that unit with "the first date that the material began to be accumulated". The terms "storage" and "unit" have specific meanings in the Dangerous Waste Regulations that are not applicable to the holding of recyclable materials for reuse. Further, several "first date[s] that the material began to be accumulated" may apply to the "storage unit" when different types of recyclable materials are accumulated in the same location. The value of knowing "the first date" materials were accumulated is diminished once a single year passes, as the 75% turnover rule is no longer relevant to the date marked on the "storage unit". We recommend that the accumulation be documented through an inventory log or other appropriate method.

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34	173-303-040	Accumulation	…"refers to… "Accumulation" refers to the definition of "storage"	**CHPRC Comment 2:** CHPRC is not in favor of this proposed change because the definition is not clear and understandable. Why has Ecology reversed their position from "accumulation is not storage" to "accumulation is storage?" What is the purpose of changing this longstanding language? This definition would eliminate the distinction between generator and TSD owner/operator management of waste. **WTP Comment 6:** The intent of the Generator Improvement Rule (GIR) is to make the rules more user-friendly and improve compliance. This proposed change only adds confusion since the inception of RCRA accumulation was a generators term, while storage was a permitted facility term, meaning if you want to "***store"*** waste you need a permit. Accumulation is duration in time depending on your generator status. If the intent is to add additional requirements to generators, recommend listing the specific WAC citations for generators.
34 & 87	173-303-040	Definitions	"Accumulation" refers to the definition of "storage." "Storage" means the holding of	**CHPRC Comment 10:** 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 treatment without a permit assuming the generator standards of 40 CFR 262.34 were being met. By defining accumulation as storage,

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			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).	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*

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				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)."
36	173-303-040	Definitions	"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).	**CHPRC Comment 9:** CHPRC is not in favor of this proposed change because it is less clear than the 40 CFR 260.10 equivalent wording. 40 CFR 260.10 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 appoint an equivalently responsible person to act as an alternate authorized representative. CHPRC would support the authorized representative definition if it included the phrase, "or person of equivalent responsibility".

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39	173-303-040	"Central accumulation area"		**CHPRC Comment 3:** CHPRC is not in favor of this proposed change because the term as defined leaves too much uncertainty about its meaning. Please add language to this definition making clear that it is not intended to (1) denote a physical location, (2) require generators to establish a location that is centrally located within the site; or (3) limit the number of areas at a site.
42	173-303-040	Definitions	Definition of "Contained"	**WRPS Comment 1:** The draft definition of "contained" omits the phrase "including land-based units" which appears in the corresponding federal regulation definition at 40 CFR 260.10. Is Ecology intending that land-based units not be eligible for containing hazardous secondary materials? If so, merely leaving the phrase out doesn't appear to limit the scope: A land-based unit could still meet the stipulated criteria for containing a hazardous secondary material, and the draft text would not preclude use of land-based units. Ecology should clarify the intended scope and, if it differs from the federal regulation, request input during public comment.
42	173-303-040	Definitions	Definition of "Contained"	The definition requires the unit to be in "good condition with no leaks…" While this definition follows the definition found in 40 CFR 260.10, the term good condition is not defined until a later time in the Definitions section. Is it Ecology's intent that the later term applies in this instance? If so, please clarify, but adding a reference, such as: "as defined in this Section." Same comment with "properly labeled."

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55	173-303-040	Definitions	Definition of "Facility"	**PNNL Comment 2:** WAC 173-303-040, definition of "Facility". Ecology proposes to delete the word "or" from the phrase "…treatment, storage (or) disposing of dangerous waste…" The Generator Improvements Rule changes retain this word. The word "or" serves to complete the list of dangerous waste management activities and distinguishes these from management of hazardous secondary materials. We recommend it be restored.
65	173-303-040	Definitions	Definitions of "large quantity generator," "medium quantity generator," "small quantity generator"	**WRPS Comment 2:** Ecology's "Summary of 2017 Draft Amendments" states that the draft definition of "medium quantity generator" is "equivalent to RCRA SQGs." The summary documents does not discuss the draft definitions of "large quantity generator" or "small quantity generator," but these nominally reflect the RCRA definitions of "large quantity generator" and "very small quantity generator." It should be pointed out, however, that the draft definitions, by including "WT01 EHW" in the definition, are more stringent than those in the corresponding federal regulation. Thus, the draft definition of "medium quantity generator" is not actually "equivalent to RCRA SQGs," but instead goes beyond the federal definition by including state-only WT01 EHW as a defining monthly generation criterion. The summary document should be revised to identify this more stringent

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				provision for the definitions of large quantity generator, medium quantity generator, and small quantity generator, and public comment on inclusion of the state-only provision should be solicited.
72	173-303-040	"No free liquids"	"…and that there is no free liquid in the container holding the wipes."	**CHPRC Comment 4:** CHPRC is not in favor of this proposed change because the definition of "No free liquids" under this exclusion imposes a paint filter test on wipes but negates any benefit from the approach by requiring the container must remain free of residual liquid including liquid that may emanate during the accumulation time after the wipes that have passed the test. Liquids dripping from such wipes after successful testing for free liquids should not be subsequently considered a source of free liquids. Alternatively, add language or a note that clarifies that the exclusion is not compromised by placing absorbent in a container to prevent accumulation of liquid.
77	173-303-040	Definitions	Definition of "Point of generation" ; "including both time and place"	**CHPRC Comment 5:** Is the intent of this definition to track and document the time of day according to a clock that a waste was generated? If not, please make clear that the purpose of the point of generation concept is to perform the dangerous waste determination on a waste based on its properties and/or pedigree at the location in a process where it first becomes a material that no longer serves an intended purpose. Please also make clear that the requirement to physically perform the

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				dangerous waste determination is not literally based on a "point in time". **PNNL Comment 3:** Ecology proposes to add this definition and include the specific wording "including both time and place". A waste stream may normally vary in composition as it is generated, even in ways that render it non-dangerous part of the time. Examples would include laboratory analysis using a particular instrument where the instrument drains into a satellite accumulation container. The implication of this definition, as applied through proposed WAC 173-303-070(3)(a), is that a generator would have to designate wastes being continually accumulated in a satellite accumulation area (or CAA) to account for this variability. This would be impractical and imprecise at best. We recommend that the definition be limited to the "place" of generation, as was adopted under the Generator Improvements Rule.
97	173-303-040	Definitions	"Weekly inspections" means an inspection conducted no more than seven consecutive calendar days	**CHPRC Comment 8:** This comment is for WAC 173-303-040 but also applies to any other regulations in WAC 173-303 that reference the definition of weekly at WAC 173-303-040. CHPRC is not in favor of this proposed change. There are elements of this proposal that would cause operational difficulties, increase noncompliance, and increase the cost of cleanup at Hanford.

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			from the last inspection.	• Operational efficiency - Hanford has a treatment, storage and disposal (TSD) Operating Unit Group (OUG) that as of the date of this comment, manages 10,417 containers of dangerous, low-level, and mixed waste. Currently the TSD OUG (the Central Waste Complex – CWC, and the Waste Receiving and Processing Unit - WRAP) inspect all 10,000+ containers during the 4-day work week (Monday – Thursday), usually starting on a Tuesday or Wednesday, but depending on other operational needs may be conducted on any of the 4 days during that calendar week. Because a majority of the waste also contains radiological constituents a crew of two qualified personnel are required to safely conduct the inspections. It takes the two-man crew about 3 days (50 to 60 hours) to inspect all containers at just the CWC. It takes one person approximately 1 day (10 hours) to inspect all containers at WRAP. CWC and WRAP combined are the OUG referenced above. Note that this team of inspectors also have other duties including shipping, receiving, and performing license and permit compliance activities. PRC estimates that an additional nine (9) full time employees (4 laborers, 2 radiation control technicians, 2 supervisors and 1 work control resource for tracking) would be required to comply with the new definition of weekly, which would be a tremendous financial, personnel and tracking burden and with no added benefit to HH&E.

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				• Compliance with the regulations should be achievable - Inspections conducted Monday through Thursday allows Hanford to compensate for: • Adverse weather conditions - The Hanford site, like any other dangerous waste site, often experiences site closures due to snow, ice or high winds. As an actual example, during the 2016/2017 winter from December 14, 2016, to February 15, 2017, the Hanford Site North of the Wye Barricade was released early from work four (4) times, had delayed starts four (4) times and had work cancelled for the entire dayshift six (6) times. This represents a total of 14 work days impacted out of a grand total of 34 work days over that same period. Two work weeks (January 9th to 12th and January 16th to 19th) had only one full working day each week. With over 10,000 containers, completion of the inspections within an inflexible 7-day timeframe will not be possible. During that 9-week period, 7 weeks were impacted due to weather. • Waste container deliveries (affected roads are closed and other unit operations are suspended during waste receipt),

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				• Other unexpected operational difficulties. Higher priority work could restrict the availability of specific workers on a given day. • Ecology should have either a less onerous definition of weekly, e.g., a calendar week like EPA's reasonable interpretation, or provide a mechanism for extensions or variances to the 7-day weekly inspection. • Increased Number of Inspections to ensure Compliance - By requiring inspections to occur with no less than 7 days in between, if an inspection is conducted on a Tuesday of week 1, the second must be conducted on or before Tuesday of week 2. This means that if a TSD planned to conduct inspections on Thursday, but saw that weather impacts were likely and they moved their inspection up to say Tuesday, Eventually the TSD would have to conduct 2 inspections in a week to get back to a Thursday schedule. This could result in significantly more than 52 inspections in a year to avoid a non-compliant situation, with increased costs and employee exposure to radiation, and without providing added protection to human health or the environment (HH&E).

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				• Consistency with other regulations – At Hanford, the most significant risks are due to radiological constituents. Nuclear safety regulations require weekly inspections be performed any time during the calendar week and allow for a 25 percent extension period which begins the first day of the following week (Technical Safety Requirement). This limits the timeframe between inspections to no more than 9 days if the 25% extension is needed. There is no added benefit to HH&E to inspect dangerous waste constituents more frequently than radioactive waste constituents. • Additional inspections do not protect HH&E - These additional inspections provide no additional protection to HH&E and could result in the inspection team receiving increased radiation exposures despite the significant worker precautions exercised during all inspection activities. • Additional inspections increase the cost of cleanup – As discussed previously it takes up to three specialized individuals to conduct waste container inspections at just the CWC and WRAP, i.e., one operating group. At the largest TSD OUG, inspection of all 10,000+ containers takes 3 full working days. Any funding spent on additional inspections reduces the funding available to accomplish cleanup which does protect human health and the environment.

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				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 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 EPA interpretation is reasonable at a large site like Hanford. The overall impact of Ecology's clarification of the term "weekly" would be the forced misuse taxpayer dollars performing activities that do not provide increased protection to HH&E. Those tax dollars should be directed at removing contaminants from the environment, an activity that would benefit HH&E. We understand that Ecology has the authority to be more restrictive than EPA, but those added restrictions should act to enhance protection of HH&E, not diminish it.

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				Please explain how this onerous clarification is beneficial to the citizens of Washington in terms of human health and the environment. If Ecology persists on being more stringent than EPA's reasonable approach to weekly inspections, Ecology should define weekly as once each calendar week (or once each work week) with no less than 4 days and no more than 11 days between inspections. This ensures that a minimum number of inspections are performed, that they are spaced appropriately apart, yet provide the capability for the regulated community to adjust to unforeseen circumstances like last winter's weather. Alternatively, Ecology should add provisions to allow a generator or permitted unit to request a variance from inspecting according to a rigid (i.e., exactly seven days) definition of weekly through demonstration that schedules allowing for some flexibility are protective based on waste type, storage conditions, inspection history, vicinity to the public and other relevant factors. Ecology should also provide for an extension to the weekly timeframe to allow more efficient calendar week inspections on a case-by-case basis for generators and owners/operators that only need flexibility periodically.

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				Suggested wording: "Weekly inspections" means an inspection conducted at least once per calendar week with no less than 4 and no more than 11 days between inspections unless the department has granted an extension or a variance to the weekly inspection period. Lastly, over the last 37 years since dangerous waste calendar week inspections have been implemented at Hanford, PRC cannot recall any specific instances where calendar week inspections were unable to identify and remedy container deterioration when the container was compatible with the stored waste. --- **MSA Comment 1:** The proposed definition creates a schedule burden. The EPA Response to Comments document for the Hazardous Waste Generator Improvements Rule (https://www.regulations.gov/document?D=EPA-HQ-RCRA-2012-0121-0312 states (page 275-276): *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*

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				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. Under EPA's interpretation, the generator must initially define a 7-day inspection window. After defining the 7-day window, the generator must ensure an inspection takes place at some point during each subsequent 7-day interval. This approach provides multiple implementation advantages (i.e., EPA's approach favorable accommodates unanticipated worker absences, weather related work cancellations or delays, holidays, etc.) Under Ecology's proposed definition, generators would potentially be forced to conduct inspections more frequently than every 7th day. For example, if a worker had been routinely performing inspections each Wednesday, and then a holiday were to fall on a Wednesday, the employer would have to: - Pay the employee overtime to perform the inspection on Wednesday, or

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				- Perform 3-4 inspections over a 14 day period to avoid an overtime scenario and allow future inspections to occur on Wednesdays, or - Conduct two inspections during the prior 7-day interval (e.g., Wednesday and then the following Tuesday) and then reschedule inspections to occur each Tuesday thereafter. A requirement to perform inspections every seven days could create jeopardy for the regulated community in situations where unforeseen circumstances (e.g., weather-related events) result in an inability to perform inspections on the scheduled day. Given the relatively slow rate of drum deterioration due to corrosion, inspections on a calendar week basis provide sufficient opportunity to identify and remedy container deterioration before a release occurs, particularly considering separate regulatory provisions requiring that containers be compatible with the dangerous waste to be stored. Is Ecology aware of specific instances where calendar week inspections were unable to identify and remedy container deterioration when the container was compatible with the stored waste? -----

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				PNNL Comment 4: Ecology proposes to add this definition requiring that such inspections be "conducted no more than seven consecutive calendar days from the last inspection". Ecology's proposed definition is drawn, in part, from a 1983 guidance document prepared by EPA that defines weekly inspections this way; Ecology has insisted that it must therefore define weekly inspections this way in order to be "consistent with the Federal program". However, EPA has more recently specifically addressed the timing of "at least weekly" in the Generator Improvements Rule Response to Comments document ("Hazardous Waste Generator Improvements Final Rule Response to Comments Document, Summaries and Responses, October 4, 2016, available at https://www.regulations.gov/document?D=EPA-HQ-RCRA-2012-0121-0312). In this document, EPA stated 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…" Ecology has not provided a reason why the flexibility to perform a weekly inspection once each calendar week should not be offered to the regulated public. The outcome is 52 weekly inspections regardless of how the time period between inspections is calculated. Weekly inspections should be conducted once each calendar week, consistent with EPA's interpretation.

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				----- **WRPS Comment 3:** The draft definition would require that weekly inspections be conducted with no more than seven consecutive calendar days from the last inspection, as opposed to allowing for inspections on a calendar week basis. This is contrary to the interpretation provided by the EPA during their recent promulgation of the generator improvements rule (81 Federal Register 85732). In response to questions on the meaning of "at least weekly," EPA provided the following response: The Agency believes the term "at least weekly" to mean [sic] "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 the 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. [EPA's Hazardous Waste Generator Improvements Final Rule – Response to Comments Document – Summaries and Responses, October 4, 2016]

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				Requiring inspections no more than seven calendar days apart could create jeopardy for generators in situations where the "scheduled" calendar day coincides with a holiday or when a facility is closed that day due to weather conditions. For example, if the inspection was routinely scheduled for every Wednesday, and a holiday occurred on that day (as the Independence Day holiday does in 2018), the generator would be faced with moving the inspection to an earlier day (e.g., Tuesday) from that point on (at least until a holiday occurs on a Tuesday), perform the inspection on the holiday, or miss the inspection date. Since Ecology's draft requirement is more stringent than that used by the EPA, Ecology bears the burden of showing that the more stringent requirement is necessary to protect human health and the environment. Given the relatively slow rate of drum deterioration due to corrosion, and considering the existing regulatory requirement that containers must be compatible with the dangerous waste stored (WAC 173-303-630(4)), inspections on a calendar week basis should be sufficient to identify and remedy container deterioration before a release occurs. Can Ecology identify any specific instances where calendar week inspections has proven to be inadequate when the container is compatible with the stored waste? -----

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				WTP Comment 1: WTP is not in favor of this change. It is unclear if the definition of "weekly" only applies to the inspection of hazardous waste containers and not permitted equipment within the facility inspection plan per 173-303-320. If a facility inspection plan has a frequency of "weekly" must it meet this definition or can it be defined in the inspection plan? The inspection plan for WTP differentiates this frequency for what is being inspected, i.e. hazardous waste containers must be inspected every 7 calendar days, facility equipment must be inspected on a calendar week with the intent to be performed every 7 days. If this flexibility is not allowed for facility equipment, compliance will be difficult to maintain. To manage a changing frequency will become burdensome, create unnecessary confusion and increase the risk of noncompliance. **WTP Comment 7:** Recommend defining weekly to mean once in a calendar week. This will provide operating facilities flexibility in performing their inspections and prevent unnecessary processing shutdowns or delays in startup to conduct inspections.
106	173-303-070(1)(b) 173-303-070(3)(a)	Designation of dangerous waste.	(1)(b) The procedures in this section are	**CHPRC Comment 12:** CHPRC is not in favor of this proposed change of adding the phrase, any person "…who discovers an unknown material", because not all unknown

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			applicable to any person who generates 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 subsections (4) or (5) of this section. Any person who generates a solid waste or discovers an	materials are to be discarded or abandoned as solid wastes. If an unknown material is discovered, it may only be unknown material to the initial discoverer and subsequent research and evaluation may determine that the material is a known useable product. Assuming that any discovered unknown material is a solid waste is counter to one of the corner stones of the Resource Conservation and Recovery Act (RCRA) which is to use materials for their intended purpose and not discard useful products as wastes. Furthermore, if an unknown material is to be discarded, it becomes a solid waste and the wording in 173-303-070(1)(b) and (3)(a) already addresses waste designation, so specifying "unknown material" that is determined to be a solid waste, is redundant. Also, Ecology's regulatory authority does not include regulation of product materials. Unknown materials will be evaluated and if product, will be used, and if waste, will be subject to WAC 173-303. CHPRC also disagrees with proposed language assigning dangerous waste determination responsibility to any person that discovers an unknown material. It is also inappropriate to expand WAC 173-303-040(5) and (5) to include "any person" except when that "person" is the generator of the waste.

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			unknown material must make an accurate determination determine 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.	The requirement to perform a dangerous waste determination is based on generation, which is the act or process that produces dangerous waste or the act that first causes a dangerous waste to become subject to regulation. Discovery by an entity other than the generator (as defined by WAC 173-303-040) should not trigger any requirements, especially not those intended for persons engaged in waste generation. A requirement that assigns designation to "any person" who discovers an unknown material, yet has no responsibility for its existence, is inappropriate. Even CERCLA, which is a remedial program, does not indiscriminately assign liability to a discoverer, but limits responsibility based on the nexus to the material's existence. It appears that the regulation is written to require the discoverer to perform a dangerous waste determination without technically calling such person a generator much less a person qualified to perform waste designations. Is the intent of these provisions to make a discoverer the generator of a dangerous waste based solely upon the act of discovery? CHPRC recommends deletion of the phrase "…or who discovers an unknown material" to align with the Resource Conservation and Recovery Act and 40 CFR 261.

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			(3)(a) 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. This must be done before any dilution, mixing, or other alteration of the waste occurs, and at any time in the course of its management that it has, or may have, changed its properties as a result of exposure	

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			to the environment or other factors that may change the properties of the waste such that the solid waste or dangerous waste classification of the waste may change.	
106	173-303-070(1)(b)	Designation of dangerous waste	The proposed rule change states: "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	**MSA Comment 2:** The rule change should include clarification allowing the individual who discovers unknown material to contact trained waste designation personnel. This clarity is needed because individual(s) who discover unknown material may not have the training to designate waste. Allowing clarity to allow for multiple individuals to be involved seems to be consistent with the definition of "person." Does Ecology support using the guidelines in Ecology's Technical Information Memorandum (TIM 82-5, dated January, 2000)? -----

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			dangerous waste in order to ensure wastes are properly managed according to applicable dangerous waste regulations."	**PNNL Comment 5:** Ecology proposes to require any person "who discovers an unknown material" to "make an accurate determination if that … unknown material is a dangerous waste". WAC 173-303-070(3)(a) goes on to propose that this person "must begin immediately" to designate such waste. The approach to, handling of, and designation of unknown material is a safety hazard to personnel and should be done only after careful evaluation and risk assessment. Further, unknown materials are overwhelmingly likely to require sampling and analysis in order to designate them, which takes time and effort to complete. Consider revising the wording of these two requirements to allow for evaluation of unknown materials prior to beginning the designation process. --- **WRPS Comment 4:** The draft revision requires "any person . . . who discovers an unknown material" to perform a dangerous waste determination, using the procedures specified in WAC 173-303-070. Does this mean that if an individual discovers an unknown material when she/he is taking a walk, that person must perform a dangerous waste determination for that material, even though the person is not the generator (and the waste may not even be on her/his property)? If Ecology personnel discover an unknown material during an inspection, do they become the "person" responsible for making the

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				dangerous waste determination? Please clarify the intent of this requirement, and consider situations such as an unknown material found illegally dumped or abandoned on property owned by a person who did not generate the material. --- **WTP Comment 2:** WTP suggests removing the requirement for a person who discovers an unknown material to make an accurate waste determination. A person (who may or may not be employed by the company who manages the land) cannot be expected to provide a waste determination on material discovered at the site since they most likely would not have the necessary training. The only thing an individual who discovers an unknown material can do it notify the facility owner/operator or management so the material can be evaluated.

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106	173-303-070(2)(a)	Designation of dangerous waste.	(2)(a) Except as provided at WAC 173-303-070 (2)(c), once a material has been determined to be a dangerous waste, then any solid waste generated from the recycling, treatment, storage, or disposal of that dangerous waste is a dangerous waste unless and until:…	**CHPRC Comment 13:** CHPRC requests that Ecology update (2)(a) to align with the Federal mixtures and derived from rules by allow mixing of solid waste with dangerous waste. Ecology's rationale in the Draft Amendments Summary states: "We are not proposing to adopt these updates to the mixture rule. This aligns with current dangerous waste regulations intended to avoid diluting dangerous waste to create a non-dangerous waste." CHPRC understands that dilution is impermissible when attempting to meet a land disposal restrictions (LDR) treatment standard in 40 CFR 268, however, dilution should be permissible to merely remove a dangerous waste characteristic that renders a material nondangerous. In those cases, the material would no longer be a dangerous waste but would still be subject to the applicable LDR treatment standard. See 40 CFR 268.9 for the Federal rationale on rendering hazardous waste nonhazardous. It seems counter-intuitive that Ecology does not want to render dangerous wastes as nondangerous waste. Management of a nondangerous waste pending LDR treatment is much less of a threat to human health and the environment than management of a dangerous waste.

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109	173-303-070(3)(a)	Designation Procedures	"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. This must be done before any dilution, mixing, or other alteration of the waste occurs…"	**PNNL Comment 6:** Ecology proposes to require that the "dangerous waste designation for each solid waste must begin immediately at the point of waste generation…" This requirement, as noted under our comment on the definition of "point of generation", does not account for a waste stream that normally varies in composition as it is generated, even in ways that render it non-dangerous part of the time. Examples would include laboratory analysis using a particular instrument where the instrument drains into a satellite accumulation container. The implication of this definition is that a generator would have to designate wastes being continually accumulated in a satellite accumulation area (or CAA) to account for this variability. This would be impractical and imprecise at best. We recommend that the requirement be limited to the "place" of generation, as was adopted under the Generator Improvements Rule. --- **WRPS Comment 5**: The draft revision requires designation be done "before any dilution, mixing, or alteration of the waste occurs." How does this apply in an emergency situation, where perhaps enough information is known to compel an emergency action resulting in alteration of the waste, but before a complete designation can be performed? Would the emergency action be precluded? Language should be added to

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				the text to clarify necessary dilution or alteration occurring in an emergency situation.
109,110	173-303-070(3)(c)	Designation Procedures	-	**PNNL Comment 7:** The word "requirements" is misspelled twice in this section. Consider correcting the spelling.
110	173-303-070(3)(d)(iv)	Designation Procedures	-	**PNNL Comment 8**: Ecology proposes to replace the word "any" with the words "one or more" when determining if a waste exhibits any dangerous waste criteria. The word substitution appears to conflict with Ecology's current waste designation guidance (see "Chemical Test Methods for Designating Dangerous Waste, Ecology Publication 97-407, December 2014, and "Designating Dangerous Waste", Ecology Publication 96-436, October 2004) which allows not designating for persistence if the waste is state toxic. If our understanding of the priority for designation is correct, consider revising this requirement to read "… determine if the waste meets the dangerous waste criteria for toxicity or, if not toxic, persistence, WAC 173-303-100."
111	173-303-070(3)(e)(ii)(C)	Designation Procedures	-	**PNNL Comment 9:** Ecology proposes to add a statement that when knowledge is inadequate or absent to make an accurate designation, testing is required. This statement is largely redundant to existing (ii)(A), which states that knowledge can only be used when it can be "…demonstrated to be sufficient for determining whether or not it … designated accurately". The addition as (ii)(C) appears to be out of context. Consider removing this proposed addition.

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128	173-303-071(3)(k)(i)	Conditions for exemption for a small quantity generator	-	**PNNL Comment 10:** Ecology proposes to narrow the exemption for PCB-containing wastes to those that contain "dielectric fluid and electric equipment containing such fluid". It isn't clear why Ecology proposes to subject most PCB wastes to the Dangerous Waste Regulations now. This adds administrative burdens to the interim management of such wastes (e.g. labeling, weekly vs. monthly inspection, can only accumulate for 90 days vs. nine months) but does not change the final disposal of such wastes and does not appear to have any significant benefit for human health or the environment. Recognizing that the corresponding exemption in 40 CFR 261.8 only applies to dielectric fluid and electric equipment containing such fluid, Ecology should be consistent in exempting only those materials from designation as toxic (waste codes D018-D043). However, the exemption from the Dangerous Waste Regulations when the waste is state-only [existing WAC 173-303-071(3)(k)(i)(B)] should be retained whether the waste is "dielectric fluid and electric equipment containing such fluid" or another PCB waste subject to 40 CFR 761. Consider retaining this portion of the exemption as in the current DW regulations.
176	173-303-071(3)(ss)(vi)	Conditions for exemption for a small quantity generator	-	**PNNL Comment 11:** Ecology proposes to adopt only part of the Federal solvent wipers rule. Ecology does not include disposal in a municipal waste landfill or incinerator as options for disposal, as does the corresponding Federal rule. The impact of this omission is to curtail the relief provided by the

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				Federal rule for such wipers. Under Ecology's proposal, disposable wipers must be accumulated, containerized and labeled under modestly relaxed standards, but must still be disposed of at permitted RCRA treatment or disposal facilities. Ecology has not advanced any rationale why Washington state municipal waste landfills or combustors are uniquely unsuitable for disposal of these wipers as opposed to similar facilities in other states. A possible impact of this rule is to shift the disposal burden for these wipers to neighboring states, where they will be non-regulated. We recommend Ecology consider adopting the corresponding Federal rule without the deletions noted.
227	173-303-170(1)(a)	Requirements for generators of hazardous waste	"Condition for exemption" means any requirement in WAC 173-303-171 through 173-303-174, 173-303-200 through 173-303-201, 173-303-235 and also in WAC 173-303-160(2)(b) in	**CHPRC Comment 6:** CHPRC is not in favor of this proposed change because the proposed definition of "condition for exemption" implies that if any generator condition for an exemption from any interim status or final status requirements is not met, then the generator loses the conditional exemption and is subject to all interim status or final status permit requirements and in violation if those permit requirements are not being met. If a generator exceeds the 90-day accumulation time limit, will the generator be in violation of just that particular generator regulation or will the generator also be in violation of dozens of permit or interim status violations since the generator is no

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			reference to farmers, that states an event, action, or standard that must occur or be met in order to obtain an exemption from any applicable requirement in WAC 173-303-400, 173-303-600, 173-303-800 and from any requirement for notification under WAC 173-303-060.	longer conditionally exempt from having a final status permit or interim status?
232	173-303-170(2)(b)(iv)	Requirements for generators of dangerous waste.	-	**PNNL Comment 12:** Ecology proposes to require that persons treating their dangerous waste on site comply with the generator standards for both WAC 173-303-170(b)(ii) (for medium quantity generators) and (b)(iii) (for large quantity generators). A word also appears to be missing, possibly "persons". Consider revising this paragraph to read "In addition to complying with the requirements of (b)(ii) of this

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				subsection for medium quantity generators, or (b)(iii) of this subsection for large quantity generators, as appropriate, persons who treat their dangerous waste on site must: …"
237	173-303-171(1)(e)(ix)	Conditions for exemption for a small quantity generator	The rule change allows the SQG to transfer waste to an offsite LQG, under the control of the same person.	**MSA Comment 3:** Clarity on if/how this practice would be addressed in the Annual Dangerous Waste Report is desired. If new annual reporting approaches are needed, then consideration for a phase-in period is requested. At large facilities, databases are typically used to support waste management and reporting. Time may be needed to develop and implement software changes.
240	173-303-171(1)(e)(ix)(B)	Conditions for exemption for a small quantity generator	-	**PNNL Comment 13:** Ecology proposes to require that small quantity generators mark containers with the words "dangerous waste" or "hazardous waste" and that such marking be legible from a distance of 25 feet or the lettering size is a minimum of one half inch in height. We agree that the marking should be of sufficient size to provide reasonable warning to staff and emergency responders. However, Ecology's proposed standard of legibility at 25 feet or ½ inch lettering is unnecessarily restrictive and would be very difficult to implement, particularly in laboratory settings. As a large research institution, most of PNNL's dangerous waste is accumulated in laboratories using small containers, ranging from a few milliliters to 20 liters. In our context, waste must be accumulated in small containers because laboratory waste

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				streams are naturally generated in small quantities and because accumulation of large quantities of waste may exceed fire code limits. Additionally, use of smaller containers is prudent in minimizing the quantity of dangerous waste in busy research laboratory spaces with active processes and equipment, especially for mixed waste. Accumulation containers that are not directly attached to analytical equipment are generally kept in chemical storage cabinets to meet fire code requirements. In the laboratory context, the size requirements proposed by Ecology are inappropriate for two reasons. First, it is not physically possible to mark many of our small containers with markings of the prescribed size (or readable from 25 feet). See the attached photo for an example of attempting to meet Ecology's proposed requirement for a one-liter container; the marking is larger than the container. It has been suggested that we could place the small container in a larger container to meet Ecology's proposed marking size; however, this practice precludes easy inspection of accumulation containers and could lead to a situation in which the primary container fails and the failure goes undetected for a period of time. Additionally, our laboratories simply do not have sufficient storage space to place containers in much larger containers just to meet a marking requirement. Second, the distances from which waste containers are visible to staff and emergency responders in laboratories are much shorter than 25 feet. In the typical case of containers stored in chemical storage

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				cabinets, the hazard and dangerous waste markings are not visible until the storage cabinet door is opened. Effective identification of a dangerous waste and its specific hazards can be provided with more appropriately sized text. Ecology has not advanced any information to explain why the criteria that have been in place since 1984 to mark the container clearly with the words "hazardous waste" or "dangerous waste" need to be revised in this manner. The existing Federal and state criteria to "clearly" mark should be adequate, as used in the Dangerous Waste Regulations since 1984, in lieu of setting a minimum size.
Various	WAC 173-303-171(1)(e)(ix)(C)II; WAC 173-303-172(9)(a)(iii)(B); WAC 173-303-172(9)(b)(ii)(B); WAC 173-303-173(3)(f)(i)(C)(II); WAC 173-303-173(3)(f)(ii)(B)(II); WAC 173-303-173(4)(f)(i)(C)(II); WAC 173-303-173(4)(f)(ii)(B)(II); WAC 173-303-	Various	-	**WRPS Comment 6:** The draft revisions in these sections require that hazard labelling be understandable to employees, emergency response personnel, the public, and visitors to the site. For purposes of clarity, consider revising the language to state that DOT labels may be used for this purpose, consistent with EPA guidance and regulation. As EPA explained in their responses to the generator improvements rule: Comment: The EPA is proposing enhanced labeling and/or marking on hazardous waste containers and tanks. WRPS recommends that if a container is labeled to match DOT OR HAZCOM requirements, it is considered acceptable for the EPA's proposed enhanced labeling (0089) EPA Response: The Agency agrees with the above comment. A SQG or LQG may label its containers with the applicable

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	174(1)(f)(ii)(E); WAC 173-303-200(6)(b)(ii)(B); WAC 173-303-200(7)(a)(iii)(B); WAC 173-303-200(7)(b)(ii)(B); WAC 173-303-200(13)(a)(iv)(C)(III); WAC 173-303-395(6); WAC 173-303-630(3)(ii)(B); WAC 173-303-640(5)(d)(iii)			hazards of the contents (examples include, but are not limited to, the applicable hazardous waste characteristic(s) (i.e., ignitable, corrosive, reactive, toxic) to match DOT or HAZCOM requirements at 49 CFR part 172 subpart E (labeling) or subpart F (placarding). This is one method. The Agency is also providing flexibility to generators in that they also may use a hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazardous Communication Standard at 29 CFR 1920.1200; or a chemical hazard label consistent with the National Fire Protection Association code 704). [EPA's Hazardous Waste Generator Improvements Final Rule – Response to Comments Document – Summaries and Responses, October 4, 2016] EPA issued similar language in the preamble to the final rule: Some commenters had the misperception that we are requiring the use of DOT hazard class labels on containers during on-site accumulation. In actuality, the Agency is providing the flexibility to generators in how they identify the hazards 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. In fact, one commenter supported EPA's approach of "giving generators options to accomplish this strengthened communication." However, as a matter of practicality, it would benefit many generators to consider the use of DOT hazard communication, since such a method

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				would not only satisfy EPA's requirement, but it may also satisfy DOT requirements when the wastes are shipped offsite to a RCRA-designated facility, such as an interim status or permitted TSDF. [81 Federal Register 85758] The public commonly encounters DOT labels in a transportation context, and such labels are considered appropriate for conveying hazard information on public highways and other places with unrestricted public access. There is no reason for believing that use of such labels within dangerous waste generator or TSD facilities would be less protective, given the more restrictive access controls in place at such facilities.
241	173-303-171(1)(e)(ix)(C)	Conditions for exemption for a small quantity generator	-	**PNNL Comment 14:** Ecology proposes to require that small quantity generators mark containers with "an indication of the hazards of the contents." Examples include, but are not limited to, the characteristics and criteria of the waste. This proposed rule deletes the provisions of the GIR that cite the use of Department of Transportation labeling or placarding, Occupational Safety and Health Administration hazard communication standard labels, or a chemical hazard label consistent with the National Fire Protection Association Code 704 as acceptable examples. We object to Ecology's omission of these examples. In its November 15 webinar to discuss the pre-draft regulations, Ecology representatives commented that "none of them" (DOT, OSHA, or NFPA) are adequate to meet Ecology's proposed standard for risk labeling. By deleting

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				these examples, Ecology is in essence adopting a risk labeling system during waste accumulation and storage that directly conflicts with its own requirements [WAC 173-303-190(2)] to label waste with the appropriate DOT warning label prior to shipment. We have previously pointed out to Ecology that the word "toxic" conflicts with the DOT labeling requirement unless the waste is a DOT poison. As a result, any marking of the waste as "toxic" (or any other hazard label that conflicts with DOT labeling requirements), as is frequently required, must be removed from the accumulation container prior to shipment and replaced with the appropriate DOT label. The addition of a separate, conflicting labeling system is unduly burdensome and does not protect human health or the environment. Further, the term "is not limited to" indicates that Ecology may expect generators to provide some unspecified marking for certain types of waste. However, the proposal does not explain when such a marking would be required, or what it would consist of. The rule is thus unclear as to what type of marking is actually required and could be the subject of questions of implementation by inspectors. We strongly recommend that Ecology adopt the language of the GIR regarding marking with "an indication of the hazards of the contents" without modification.

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241	173-303-171(1)(e)(ix)(C)(I)	Conditions for exemption for a small quantity generator	-	**PNNL Comment 15:** Ecology proposes to require that small quantity generators mark containers and tanks with "an indication of the hazards of the contents" and that such marking be legible from a distance of 25 feet or the lettering size is a minimum of one half inch in height. We agree that the marking should be of sufficient size to provide reasonable warning to staff and emergency responders. However, Ecology's proposed standard of legibility at 25 feet or ½ inch lettering is unnecessarily restrictive and would be very difficult to implement, particularly in laboratory settings. As a large research institution, most of PNNL's dangerous waste is accumulated in laboratories using small containers, ranging from a few milliliters to 20 liters. In our context, waste must be accumulated in small containers because laboratory waste streams are naturally generated in small quantities and because accumulation of large quantities of waste may exceed fire code limits. Additionally, use of smaller containers is prudent in minimizing the quantity of dangerous waste in busy research laboratory spaces with active processes and equipment, especially for mixed waste. Accumulation containers that are not directly attached to analytical equipment are generally kept in chemical storage cabinets to meet fire code requirements. In the laboratory context, the size requirements proposed by Ecology are inappropriate for two reasons. First, it is not physically possible to mark many of our small containers with markings of the prescribed size (or readable from 25 feet).

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				See the attached photo for an example of attempting to meet Ecology's proposed requirement for a one-liter container; the marking is larger than the container. It has been suggested that we could place the small container in a larger container to meet Ecology's proposed marking size; however, this practice precludes easy inspection of accumulation containers and could lead to a situation in which the primary container fails and the failure goes undetected for a period of time. Additionally, our laboratories simply do not have sufficient storage space to place containers in much larger containers just to meet a marking requirement. Second, the distances from which waste containers are visible to staff and emergency responders in laboratories are much shorter than 25 feet. In the typical case of containers stored in chemical storage cabinets, the hazard and dangerous waste markings are not visible until the storage cabinet door is opened. Effective identification of a dangerous waste and its specific hazards can be provided with more appropriately sized text. Ecology has not advanced any information to explain why the criteria that have been in place since 1984 to mark the container clearly with the words "hazardous waste" or "dangerous waste" need to be revised in this manner. The existing Federal and state criteria to "clearly" mark should be adequate, as used in the Dangerous Waste Regulations since 1984, in lieu of setting a minimum size.

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241	173-303-171(1)(e)(ix)(C)(II)	Conditions for exemption for a small quantity generator	-	**PNNL Comment 16:** Ecology proposes to require that small quantity generators mark containers and tanks with "an indication of the hazards of the contents." Such marking must be "understandable to employees, emergency response personnel, the public, and visitors to the site." Ecology's proposal to limit hazard warnings to text descriptions as the only way to achieve "understandability" unnecessarily restricts generators from using established, well-understood hazard warning systems. We believe that limiting the specific hazard warnings to text descriptions is not necessary or even beneficial. We recognize that untrained staff, visitors and the public may not fully understand symbolic hazard warnings (e.g., DOT, NFPA, and OSHA and hazard identification systems). However, text warnings such as "Ignitable", "Toxic" or "Reactive" may also provide little useful information to untrained people. The generic "Hazardous Waste" or "Dangerous Waste" statement is sufficient to warn untrained employees and the public to beware. Hazard-specific labeling is useful only to waste management employees and emergency responders, who are trained to understand DOT, NFPA and OSHA hazard identification systems. In reality, DOT and other hazard identification systems are likely to be more useful to waste management employees and emergency responders than text warnings by virtue of having more specific meanings. As an example, Ecology has suggested that "Ignitable" is an appropriate

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				hazard warning. In fact, "Ignitable" wastes could include flammable liquids, flammable gases, flammable solids or oxidizers, or even combustible liquids -- each of which would require distinctly different approaches to emergency response. In this case the DOT labels, for example, provide far more specific and useful information than Ecology's suggested text warning. The same is certainly true of the "Reactive" hazard description. We recommend Ecology allow utilization of the labeling systems referenced in the GIR, i.e. Department of Transportation, Occupational Safety and Health Administration hazard communication standard, or a chemical hazard label consistent with the National Fire Protection Association Code 704.
245	173-303-172(5)(a)	Conditions for exemption for a medium quantity genera-tor that accumulates dangerous waste.	-	**PNNL Comment 17:** Ecology proposes to add several indicators of when a container may not be "in good condition" and thus unsuitable for continued use. These include "severe corroding, rusting, flaking, scaling, and/or apparent structural defects". The current regulation only cites "severe rusting" and "apparent structural defects" as examples. Since these are cited as examples, it appears Ecology is attempting to broaden the basis on which an inspector may question the integrity of a container in storage. It remains the responsibility of the generator (or TSD) to determine if the container is "in good condition" regardless of the defect that may render it otherwise; the added examples appear superfluous. We recommend Ecology not adopt the added examples.

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246, 304, 702	173-303-172 and others	Conditions for exemption for a medium quantity genera-tor that accumulates dangerous waste and others	"…allow for complete inspection of each container…"	**CHPRC Comment 18:** Is this language intended to require a change in how container inspections are accomplished or is it intended to clarify existing language? If this is a change in expectations for inspections, please explain why this requirement needs to be made more stringent after being in place on a federal basis for over 37 years. Please provide specific information regarding Ecology's expectations for satisfying this requirement. It seems reasonable that a "complete inspection" should involve a graded approach based on the type of waste stored and could often be accomplished without necessarily observing every square inch of a container's external surface. For example, the inspection approach for highly reactive wastes might be different than for soil with trace amounts of listed solvent that exhibits no characteristics of dangerous waste. It is not reasonable to establish a rigid standard for inspection that will be difficult to achieve and add no additional benefit to protection of HH&E.
248	173-303-172(6)(c)(1)		"remove all dangerous waste from tanks"	This is inconsistence with the Hanford Site Consent Decree or TPA that will allow some wastes to remain in place.
256	173-303-172(9)(a)(ii)	Conditions for exemption for a medium quantity generator that	-	**PNNL Comment 18:** Ecology proposes to require that medium quantity generators mark containers with the words "dangerous waste" or "hazardous waste" and that such marking be legible from a distance of 25 feet or the lettering size is a minimum of one half inch in height. We agree that

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		accumulates dangerous waste.		the marking should be of sufficient size to provide reasonable warning to staff and emergency responders. However, Ecology's proposed standard of legibility at 25 feet or ½ inch lettering is unnecessarily restrictive and would be very difficult to implement, particularly in laboratory settings. As a large research institution, most of PNNL's dangerous waste is accumulated in laboratories using small containers, ranging from a few milliliters to 20 liters. In our context, waste must be accumulated in small containers because laboratory waste streams are naturally generated in small quantities and because accumulation of large quantities of waste may exceed fire code limits. Additionally, use of smaller containers is prudent in minimizing the quantity of dangerous waste in busy research laboratory spaces with active processes and equipment, especially for mixed waste. Accumulation containers that are not directly attached to analytical equipment are generally kept in chemical storage cabinets to meet fire code requirements. In the laboratory context, the size requirements proposed by Ecology are inappropriate for two reasons. First, it is not physically possible to mark many of our small containers with markings of the prescribed size (or readable from 25 feet). See the attached photo for an example of attempting to meet Ecology's proposed requirement for a one-liter container; the marking is larger than the container. It has been suggested that we could place the small container in a larger container to meet Ecology's proposed marking size; however, this practice

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				precludes easy inspection of accumulation containers and could lead to a situation in which the primary container fails and the failure goes undetected for a period of time. Additionally, our laboratories simply do not have sufficient storage space to place containers in much larger containers just to meet a marking requirement. Second, the distances from which waste containers are visible to staff and emergency responders in laboratories are much shorter than 25 feet. In the typical case of containers stored in chemical storage cabinets, the hazard and dangerous waste markings are not visible until the storage cabinet door is opened. Effective identification of a dangerous waste and its specific hazards can be provided with more appropriately sized text. Ecology has not advanced any information to explain why the criteria that have been in place since 1984 to mark the container clearly with the words "hazardous waste" or "dangerous waste" need to be revised in this manner. The existing Federal and state criteria to "clearly" mark should be adequate, as used in the Dangerous Waste Regulations since 1984, in lieu of setting a minimum size.
256	173-303-172(9)(a)(iii)	Conditions for exemption for a medium quantity generator that accumulates dangerous waste.	The proposed change requires generators to mark or label containers with an indication of	**MSA Comment 4:** For generators with very small waste containers (e.g., lab ampules), it may not be feasible to meet this requirement. Can clarity be provided on how to meet this requirement in such an instance? For example, a, an allowance to place small containers in a larger container that is appropriately labeled would provide a way to meet the

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			the hazards such that the mark/label is recognizable from a distance of 25 feet or is a minimum of one half inch in size.	requirement, as discussed in the 11/15/17 webinar. This comment also applies to the same requirement for small and large quantity generators. ----- **PNNL Comment 19:** Ecology proposes to require that medium quantity generators mark containers with "an indication of the hazards of the contents." Examples include, but are not limited to, the characteristics and criteria of the waste. This proposed rule deletes the provisions of the GIR that cite the use of Department of Transportation labeling or placarding, Occupational Safety and Health Administration hazard communication standard labels, or a chemical hazard label consistent with the National Fire Protection Association Code 704 as acceptable examples. We object to Ecology's omission of these examples. In its November 15 webinar to discuss the pre-draft regulations, Ecology representatives commented that "none of them" (DOT, OSHA, or NFPA) are adequate to meet Ecology's proposed standard for risk labeling. By deleting these examples, Ecology is in essence adopting a risk labeling system during waste accumulation and storage that directly conflicts with its own requirements [WAC 173-303-190(2)] to label waste with the appropriate DOT warning label prior to shipment. We have previously pointed out to Ecology that the word "toxic" conflicts with the DOT

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WAC Draft Rule pdf pg #	**WAC Citation**	**Title**	**Applicable Text**	**Comment**
				labeling requirement unless the waste is a DOT poison. As a result, any marking of the waste as "toxic" (or any other hazard label that conflicts with DOT labeling requirements), as is frequently required, must be removed from the accumulation container prior to shipment and replaced with the appropriate DOT label. The addition of a separate, conflicting labeling system is unduly burdensome and does not protect human health or the environment. Further, the term "is not limited to" indicates that Ecology may expect generators to provide some unspecified marking for certain types of waste. However, the proposal does not explain when such a marking would be required, or what it would consist of. The rule is thus unclear as to what type of marking is actually required and could be the subject of questions of implementation by inspectors. We strongly recommend that Ecology adopt the language of the GIR regarding marking with "an indication of the hazards of the contents" without modification.
256	173-303-172(9)(a)(iii)(A)	Conditions for exemption for a medium quantity generator that accumulates dangerous waste.	-	**PNNL Comment 20:** Ecology proposes to require that medium quantity generators mark containers with "an indication of the hazards of the contents" and that such marking be legible from a distance of 25 feet or the lettering size is a minimum of one half inch in height. We agree that the marking should be of sufficient size to provide reasonable warning to staff and emergency responders. However, Ecology's proposed standard of legibility at 25 feet or ½ inch

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				lettering is unnecessarily restrictive and would be very difficult to implement, particularly in laboratory settings. As a large research institution, most of PNNL's dangerous waste is accumulated in laboratories using small containers, ranging from a few milliliters to 20 liters. In our context, waste must be accumulated in small containers because laboratory waste streams are naturally generated in small quantities and because accumulation of large quantities of waste may exceed fire code limits. Additionally, use of smaller containers is prudent in minimizing the quantity of dangerous waste in busy research laboratory spaces with active processes and equipment, especially for mixed waste. Accumulation containers that are not directly attached to analytical equipment are generally kept in chemical storage cabinets to meet fire code requirements. In the laboratory context, the size requirements proposed by Ecology are inappropriate for two reasons. First, it is not physically possible to mark many of our small containers with markings of the prescribed size (or readable from 25 feet). See the attached photo for an example of attempting to meet Ecology's proposed requirement for a one-liter container; the marking is larger than the container. It has been suggested that we could place the small container in a larger container to meet Ecology's proposed marking size; however, this practice precludes easy inspection of accumulation containers and could lead to a situation in which the primary container fails and the failure goes undetected for a period of time.

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				Additionally, our laboratories simply do not have sufficient storage space to place containers in much larger containers just to meet a marking requirement. Second, the distances from which waste containers are visible to staff and emergency responders in laboratories are much shorter than 25 feet. In the typical case of containers stored in chemical storage cabinets, the hazard and dangerous waste markings are not visible until the storage cabinet door is opened. Effective identification of a dangerous waste and its specific hazards can be provided with more appropriately sized text. Ecology has not advanced any information to explain why the criteria that have been in place since 1984 to mark the container clearly with the words "hazardous waste" or "dangerous waste" need to be revised in this manner. The existing Federal and state criteria to "clearly" mark should be adequate, as used in the Dangerous Waste Regulations since 1984, in lieu of setting a minimum size.
256	173-303-172(9)(a)(iii)(B)	Conditions for exemption for a medium quantity generator that accumulates dangerous waste.	-	**PNNL Comment 21:** Ecology proposes to require that medium quantity generators mark containers with "an indication of the hazards of the contents." Such marking must be "understandable to employees, emergency response personnel, the public, and visitors to the site." Ecology's proposal to limit hazard warnings to text descriptions as the only way to achieve "understandability" unnecessarily restricts generators from using established, well-understood hazard

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				warning systems. We believe that limiting the specific hazard warnings to text descriptions is not necessary or even beneficial. We recognize that untrained staff, visitors and the public may not fully understand symbolic hazard warnings (e.g., DOT, NFPA, and OSHA and hazard identification systems). However, text warnings such as "Ignitable", "Toxic" or "Reactive" may also provide little useful information to untrained people. The generic "Hazardous Waste" or "Dangerous Waste" statement is sufficient to warn untrained employees and the public to beware. Hazard-specific labeling is useful only to waste management employees and emergency responders, who are trained to understand DOT, NFPA and OSHA hazard identification systems. In reality, DOT and other hazard identification systems are likely to be more useful to waste management employees and emergency responders than text warnings by virtue of having more specific meanings. As an example, Ecology has suggested that "Ignitable" is an appropriate hazard warning. In fact, "Ignitable" wastes could include flammable liquids, flammable gases, flammable solids or oxidizers, or even combustible liquids -- each of which would require distinctly different approaches to emergency response. In this case the DOT labels, for example, provide far more specific and useful information than Ecology's suggested text warning. The same is certainly true of the "Reactive" hazard description. We recommend Ecology allow utilization of the

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				labeling systems referenced in the GIR, i.e. Department of Transportation, Occupational Safety and Health Administration hazard communication standard, or a chemical hazard label consistent with the National Fire Protection Association Code 704.
265	173-303-172(13)	Conditions for exemption for a medium quantity genera-tor that accumulates dangerous waste	-	**PNNL Comment 22:** Ecology proposes to add an MQG requirement to "…inspect the facility…" similar to that required for large-quantity generators and TSD facilities. This requirement does not appear in the corresponding GIR requirements of 40 CFR 262.16. Imposition of a requirement to prepare an inspection plan, when weekly inspection of MQG CAAs is already required by proposed WAC 173-303-172(5)(d) and testing and maintenance of equipment is already required by proposed WAC 173-303-172(11)(c), seems unnecessary for MQGs. Ecology has not explained why a written inspection plan is necessary for MQGs to protect human health or the environment. We recommend this section be deleted.
270	173-303-173(3)(f)(i)(B)	Alternative standards for episodic generation	-	**PNNL Comment 23:** Ecology proposes to require that episodic generators mark containers with the words "episodic dangerous waste" or "episodic hazardous waste" and that such marking be legible from a distance of 25 feet or the lettering size is a minimum of one half inch in height. We agree that the marking should be of sufficient size to provide reasonable warning to staff and emergency responders. However,

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				Ecology's proposed standard of legibility at 25 feet or ½ inch lettering is unnecessarily restrictive and would be very difficult to implement, particularly in laboratory settings but also during an episodic event including a variety of wastes being aggregated simultaneously such as a maintenance campaign. Episodic dangerous waste could be accumulated in a variety of small containers, ranging from a few milliliters to 20 liters. In our context, waste must be accumulated in small containers because laboratory waste streams are naturally generated in small quantities and because accumulation of large quantities of waste may exceed fire code limits. Additionally, use of smaller containers is prudent in minimizing the quantity of dangerous waste in busy research laboratory spaces with active processes and equipment, especially for mixed waste. Accumulation containers that are not directly attached to analytical equipment are generally kept in chemical storage cabinets to meet fire code requirements. In the laboratory context, the size requirements proposed by Ecology are inappropriate for two reasons. First, it is not physically possible to mark many of our small containers with markings of the prescribed size (or readable from 25 feet). See the attached photo for an example of attempting to meet Ecology's proposed requirement for a one-liter container; the marking is larger than the container. It has been suggested that we could place the small container in a larger container to meet Ecology's proposed marking size; however, this practice

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				precludes easy inspection of accumulation containers and could lead to a situation in which the primary container fails and the failure goes undetected for a period of time. Additionally, our laboratories simply do not have sufficient storage space to place containers in much larger containers just to meet a marking requirement. Second, the distances from which waste containers are visible to staff and emergency responders in laboratories are much shorter than 25 feet. In the typical case of containers stored in chemical storage cabinets, the hazard and dangerous waste markings are not visible until the storage cabinet door is opened. Effective identification of a dangerous waste and its specific hazards can be provided with more appropriately sized text. Ecology has not advanced any information to explain why the criteria that have been in place since 1984 to mark the container clearly with the words "hazardous waste" or "dangerous waste" need to be revised in this manner. The existing Federal and state criteria to "clearly" mark should be adequate, as used in the Dangerous Waste Regulations since 1984, in lieu of setting a minimum size.
270	173-303-173(3)(f)(i)(C)	Alternative standards for episodic generation	-	**PNNL Comment 24:** Ecology proposes to require that episodic generators mark containers with "an indication of the hazards of the contents." Examples include, but are not limited to, the characteristics and criteria of the waste. This proposed rule deletes the provisions of the GIR that cite the use of Department of Transportation labeling or placarding,

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				Occupational Safety and Health Administration hazard communication standard labels, or a chemical hazard label consistent with the National Fire Protection Association Code 704 as acceptable examples. We object to Ecology's omission of these examples. In its November 15 webinar to discuss the pre-draft regulations, Ecology representatives commented that "none of them" (DOT, OSHA, or NFPA) are adequate to meet Ecology's proposed standard for risk labeling. By deleting these examples, Ecology is in essence adopting a risk labeling system during waste accumulation and storage that directly conflicts with its own requirements [WAC 173-303-190(2)] to label waste with the appropriate DOT warning label prior to shipment. We have previously pointed out to Ecology that the word "toxic" conflicts with the DOT labeling requirement unless the waste is a DOT poison. As a result, any marking of the waste as "toxic" (or any other hazard label that conflicts with DOT labeling requirements), as is frequently required, must be removed from the accumulation container prior to shipment and replaced with the appropriate DOT label. The addition of a separate, conflicting labeling system is unduly burdensome and does not protect human health or the environment. Further, the term "is not limited to" indicates that Ecology may expect generators to provide some unspecified marking for certain types of waste. However, the proposal does not explain when such a marking would be required, or what it would consist of. The rule is thus unclear

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				as to what type of marking is actually required and could be the subject of questions of implementation by inspectors. We strongly recommend that Ecology adopt the language of the GIR regarding marking with "an indication of the hazards of the contents" without modification.
270	173-303-173(3)(f)(i)(C)(I)	Alternative standards for episodic generation	-	**PNNL Comment 25:** Ecology proposes to require that episodic generators mark containers with "an indication of the hazards of the contents" and that such marking be legible from a distance of 25 feet or the lettering size is a minimum of one half inch in height. We agree that the marking should be of sufficient size to provide reasonable warning to staff and emergency responders. However, Ecology's proposed standard of legibility at 25 feet or ½ inch lettering is unnecessarily restrictive and would be very difficult to implement, including during episodic generation at a MQG. A variety of episodic waste could be generated and accumulated using small containers, ranging from a few milliliters to 20 liters. In our context, waste must be accumulated in small containers because laboratory waste streams are naturally generated in small quantities and because accumulation of large quantities of waste may exceed fire code limits. Additionally, use of smaller containers is prudent in minimizing the quantity of dangerous waste in spaces with active processes and equipment, especially for mixed waste. Accumulation containers that are not directly attached to analytical equipment are generally kept in chemical storage

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				cabinets to meet fire code requirements. In the laboratory context, the size requirements proposed by Ecology are inappropriate for two reasons. First, it is not physically possible to mark many of our small containers with markings of the prescribed size (or readable from 25 feet). See the attached photo for an example of attempting to meet Ecology's proposed requirement for a one-liter container; the marking is larger than the container. It has been suggested that we could place the small container in a larger container to meet Ecology's proposed marking size; however, this practice precludes easy inspection of accumulation containers and could lead to a situation in which the primary container fails and the failure goes undetected for a period of time. Additionally, our laboratories simply do not have sufficient storage space to place containers in much larger containers just to meet a marking requirement. Second, the distances from which waste containers are visible to staff and emergency responders in laboratories are much shorter than 25 feet. In the typical case of containers stored in chemical storage cabinets, the hazard and dangerous waste markings are not visible until the storage cabinet door is opened. Effective identification of a dangerous waste and its specific hazards can be provided with more appropriately sized text. Ecology has not advanced any information to explain why the criteria that have been in place since 1984 to mark the container clearly with the words "hazardous waste" or "dangerous waste" need

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				to be revised in this manner. The existing Federal and state criteria to "clearly" mark should be adequate, as used in the Dangerous Waste Regulations since 1984, in lieu of setting a minimum size.
270	173-303-173(3)(f)(i)(C)(II)	Alternative standards for episodic generation	-	**PNNL Comment 26:** Ecology proposes to require that episodic generators mark containers with "an indication of the hazards of the contents." Such marking must be "understandable to employees, emergency response personnel, the public, and visitors to the site." Ecology's proposal to limit hazard warnings to text descriptions as the only way to achieve "understandability" unnecessarily restricts generators from using established, well-understood hazard warning systems. We believe that limiting the specific hazard warnings to text descriptions is not necessary or even beneficial. We recognize that untrained staff, visitors and the public may not fully understand symbolic hazard warnings (e.g., DOT, NFPA, and OSHA and hazard identification systems). However, text warnings such as "Ignitable", "Toxic" or "Reactive" may also provide little useful information to untrained people. The generic "Hazardous Waste" or "Dangerous Waste" statement is sufficient to warn untrained employees and the public to beware. Hazard-specific labeling is useful only to waste management employees and emergency responders, who are trained to understand DOT, NFPA and OSHA hazard identification systems. In reality, DOT and other hazard identification

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				systems are likely to be more useful to waste management employees and emergency responders than text warnings by virtue of having more specific meanings. As an example, Ecology has suggested that "Ignitable" is an appropriate hazard warning. In fact, "Ignitable" wastes could include flammable liquids, flammable gases, flammable solids or oxidizers, or even combustible liquids -- each of which would require distinctly different approaches to emergency response. In this case the DOT labels, for example, provide far more specific and useful information than Ecology's suggested text warning. The same is certainly true of the "Reactive" hazard description. We recommend Ecology allow utilization of the labeling systems referenced in the GIR, i.e. Department of Transportation, Occupational Safety and Health Administration hazard communication standard, or a chemical hazard label consistent with the National Fire Protection Association Code 704.
263	173-303-172(12)	MQGs - Emergency procedures and training	The section title indicates training standards are presented.	**MSA Comment 5**: No training information is provided in -172(12). Hence, the section content conflicts with the title.
280	173-303-174(1)	Satellite accumulation area regulations for medium quantity	"A generator may accumulate waste without a permit, or without	**CHPRC Comment 7:** CHPRC is not in favor of this proposed change because, like the comments above state, this wording implies that if any satellite accumulation area (SAA) condition for an exemption from any interim status or final

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		generators and large quantity generators.	complying with WAC 173-303-400, 173-303-600, 173-303-800 and 173-303-692, provided that all the conditions for exemption in this section are met."	status requirements is not met, then the generator loses the conditional exemption and is subject to all interim status or final status permit requirements. If a generator exceeds the SAA volume limit, will the generator be in violation of just that particular SAA regulation or will the generator also be in violation of dozens of permit violations since the generator is no longer conditionally exempt from having a final status permit or interim status?
280	173-303-174(1)(a)	Satellite accumulation area regulations for medium quantity generators and large quantity generators	-	**PNNL Comment 27:** Ecology proposes to add several indicators of when a container may not be "in good condition" and thus unsuitable for continued use. These include "severe corroding, rusting, flaking, scaling, and/or apparent structural defects". The current regulation only cites "severe rusting" and "apparent structural defects" as examples. Since these are cited as examples, it appears Ecology is attempting to broaden the basis on which an inspector may question the integrity of a container in storage. It remains the responsibility of the generator (or TSD) to determine if the container is "in good condition" regardless of the defect that may render it otherwise; the added examples appear superfluous. We recommend Ecology not adopt the added examples.
282	173-303-174(1)(e)(iii)	Satellite accumulation area regulations for	-	**PNNL Comment 28:** Ecology proposes to add a requirement to separate containers of incompatible materials in

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		medium quantity generators and large quantity generators		a satellite accumulation area, or protect them "by means of a dike, berm, wall, or other device. Containment systems for incompatible wastes must be separate." This requirement is impractical for satellite accumulation areas, which are generally limited in both size and capacity. Use of dikes, berms, or walls in a SAA is generally not feasible. Further, the draft rule implies that secondary containment is required for SAAs by saying that "containment systems…must be separate." Other portions of WAC 173-303-174 do not make reference to a requirement for containment systems in SAAs, and such a requirement does not appear in the GIR. We recommend that the simple language of the GIR be adopted here, viz., "…must be separated from the other materials or protected from them by any practical means."
283	173-303-174(1)(g)	Satellite accumulation area regulations for medium quantity generators and large quantity generators.	"Accumulation limits met. When the accumulation limits listed in paragraph (1) of this section are met:	**CHPRC Comment 22:** CHPRC is not in favor of this proposed change because the term "met" is not consistent with other regulatory references to accumulation limits that use the term "exceeds" which would also be consistent with Federal satellite regulations 40 CFR 262.15(a)(6) uses the phrase "…in excess of the amounts listed…" which clearly conveys that an SAA container can be filled to its applicable limit (55 gallons for nonacutely dangerous waste or 1 quart for acutely liquid hazardous waste or 2.2 lbs. of solid acutely hazardous waste) and another SAA can be started while the full SAA is marked

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				with an accumulation date and moved within 3 days to the central accumulation area. The proposed wording with "met" could imply that once the 55-gallon or 1 quart limit is met, the satellite area can no longer accumulate any dangerous or hazardous waste until the full SAA is moved to a central accumulation area. Also, WAC 173-303 has other accumulation time limit references for small quantity and large quantity generators, laboratory clean-outs, and empty containers that uses the term "exceeds", which is appropriate and would be consistent with 40 CFR 262. Please amend the proposed wording in (1)(g) to read as: "Accumulation limits exceeded. When the accumulation limits listed in paragraph (1) of the section are exceeded:"
Various	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-	Various	(f) Container labeling or marking. A generator must clearly label or mark each container of dangerous waste	**CHPRC Comment 11:** CHPRC is not in favor of this proposed change because Ecology's additional requirements and deletion of EPA's clarifying language has made the implementation unworkable and of little value to protection of human health or the environment. Hazard labeling should accurately identify the actual hazards exhibited with a particular container of waste. Overstating or simplifying the potential risks could adversely impact

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	200(13)(a)(iv)(C), 173-303-240(6)(i)		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	emergency response efforts and endanger emergency responders, workers and the public due to unnecessary evacuations based on incorrect hazards. Hazards associated with the F, K, U or P listed codes can be negligible. As is the case with debris waste, if the waste, on its own exhibits a characteristic or criteria, than it should be labeled with an appropriate DOT, OSHA or NFPA hazard. 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, the debris itself may not exhibit any characteristics or WA State criteria for dangerous waste. These wastes should not be identified with a nonexistent hazard that could mislead emergency responders, workers or even the public. As stated by EPA in the final GIR, *"Examples of hazards include, but are not limited to, the applicable hazardous waste characteristic(s) (i.e., ignitable, corrosive, reactive, toxic); hazard communication consistent with the DOT requirements at 49 CFR part 172 subpart E (labeling) or subpart F (placarding); a hazard statement or pictogram consistent with the OSHA Hazard Communication Standard at 29 CFR 1910.1200; or a chemical hazard label consistent with the NFPA code 704."* One commenter stated that using this

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			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	flexible approach will strengthen hazard communications and CHPRC agrees. Furthermore, the Hanford site is physically separate from the surrounding population and site access is controlled 24 hours per day and 7 days per week. • Hanford has its own emergency response organization that leads any site emergency response action. The Hanford owner and operators are best suited to determine the appropriate hazard labels (e.g., DOT, OSHA, NFPA or use any other nationally recognized system) and train their emergency response organization in the meaning of those hazard labels. • Hanford employees and vendors are required to complete specific training with regard to emergency response actions. The Hanford owner and operators are the most knowledgeable sources to determine the appropriate hazard labels for Hanford generated wastes and to train their employees and vendors in the meaning of those labels. • Hanford access is restricted to authorized personnel. All visitors receive a safety briefing and are escorted at all times.

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			public and other visitors to the site.	Concerning DOT hazard labels and placards, if DOT hazard labels and placards are adequate to warn emergency response personnel, and the public of hazardous materials moving on public highways through cities and towns, these labels and placards should be more than adequate as hazard labels. **If Ecology does not allow the use of DOT hazard labeling it will increase the cost of Hanford cleanup** with no environmental benefit. For example, a generator at one part of the Hanford site would use Ecology hazard labels while accumulating waste such as "Ignitable", "Corrosive", "Reactive" or the generic catch-all hazard of "Toxic". However, if the Ecology required hazard labels contradict a DOT requirement, the hazard labels will have to be removed and applicable DOT labels e.g., Radioactive or Class 9, applied when the waste is shipped to another Hanford unit for storage since Hanford complies with DOT or DOE shipping requirements even for onsite transportation in order to ship as safely as possible. Once the waste is off-loaded at the receiving storage unit the DOT labels that Ecology considers not understandable to the general public will have to be removed and Ecology approved hazard labels re-applied. This whole process would be repeated as the waste is shipped to a treatment unit and then to a disposal unit, all on the Hanford site.

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				• Each time hazard labels are replaced, an opportunity for human error is introduced increasing compliance risks. • Switching hazard labels depending on whether the container is in accumulation, storage or pre-transport increases opportunities for confusion of which labels are compliant. • Applying hazard labels at one location, and then removing the hazard labels for transportation and then re-applying the hazard labels following receipt at another location is a forced misuse of taxpayer money and a diversion of resources that could be spent on cleanup activities that actually benefit human health and the environment. The equivalent federal requirement at 40 CFR 262.15(a)(5)(ii) stated: *"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*

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				Administration Hazard Communication Standard at 29 CFR 1910.1200; or a chemical hazard label consistent with the National Fire Protection Association code 704).” 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 commonly recognized systems, except that Ecology added that the hazard labels must be “understandable” to employees, emergency responders, waste handlers, i.e., “employees”, the public and visitors. CHPRC is concerned that ensuring all members of the public or all visitors understand technical waste labels and markings is a significant compliance risk since not every member of the public or every visitor will understand technical hazards even such as ignitable, corrosive, reactive or toxic. PRC cannot guarantee that 100% of the public and 100% of visitors will retain the technical knowledge from their site training to differentiate between significant hazards like radioactivity and insignificant hazards like debris listed only for legal reasons, e.g., no hazards are present. It is expected that emergency responders and waste handlers understand hazard labels to ensure that appropriate actions are taken during emergency response or routine waste operations. And these types of workers need the technically appropriate hazard labels present on the waste containers whether it is a DOT,

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				OSHA, NFPA or other commonly recognized systems as EPA promoted. However, the general public has no access to Hanford waste accumulation and storage areas which is probably the same case for any generator in Washington State since security requirements at WAC 173-303-310 apply to all generators and TSDFs. Also, visitors to the Hanford site are escorted at all times by CHPRC personnel that do understand hazard labels. And as stated by Ecology during the November 14, 2017, webinar on these proposed rules, the main goal of the hazard label is to make people aware of a danger. All dangerous and mixed waste containers are marked "Hazardous Waste" or "Dangerous Waste" and include a DOT hazard mark or label or equivalent wording. If the general public sees a container of debris marked "Hazardous Waste" with the additional hazard label "Toxic", the general public will make no distinction between the two terms "hazardous" or "toxic" and will still be aware of a danger. Hence if a dangerous waste container is marked "Hazardous Waste" and DOT hazard class 9 label (which means no other DOT hazards applied and is only regulated by DOT because it is regulated as a hazardous waste), the general public again is aware of the danger due to the presence of the term "Hazardous Waste" or "Dangerous Waste". The DOT Hazard Class 9 will greatly assist an emergency responder or worker since they understand that no other DOT hazards apply and the waste is relatively benign and emergency response in this case would

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				be implemented accordingly. If the waste had to be marked "Toxic", the emergency responder would interpret the waste to be a DOT Hazard Class 6.1 Poison and respond as though the waste were an actual poisonous waste when in fact, it is not. More resources would be allocated for a perceived DOT Hazard Class 6.1 emergency than a DOT Hazard Class 9, plus evacuation protocols would be more extensive. All actions for a perceived hazard would be more costly and less safe for all involved, i.e., people can get hurt during a mandatory evacuation. The use of the EPA wording would help clarify acceptable markings and labels for hazard indications. Also the Generator Improvements Rule Federal Register stated 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. …" 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:

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				"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 commonly 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 ½one half inch in height."
282	173-303-174(1)(f)(i)	Satellite accumulation area regulations for medium quantity generators and large quantity generators	-	**PNNL Comment 29:** Ecology proposes to require that satellite area containers be marked with the words "dangerous waste" or "hazardous waste" and that such marking be legible from a distance of 25 feet or the lettering size is a minimum of one half inch in height. We agree that the marking should be of sufficient size to provide reasonable warning to staff and emergency responders. However, Ecology's proposed standard of legibility at 25 feet or ½ inch lettering is unnecessarily restrictive and would be very difficult to implement, particularly in laboratory settings. As a large research institution, most of PNNL's dangerous waste is accumulated in laboratories using small containers, ranging from a few milliliters to 20 liters. In our context, waste must be accumulated in small containers because laboratory waste streams are naturally generated in small quantities and because

Table 1. Generator Improvement Rule (GIR) Comments				
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				accumulation of large quantities of waste may exceed fire code limits. Additionally, use of smaller containers is prudent in minimizing the quantity of dangerous waste in busy research laboratory spaces with active processes and equipment, especially for mixed waste. Accumulation containers that are not directly attached to analytical equipment are generally kept in chemical storage cabinets to meet fire code requirements. In the laboratory context, the size requirements proposed by Ecology are inappropriate for two reasons. First, it is not physically possible to mark many of our small containers with markings of the prescribed size (or readable from 25 feet). See the attached photo for an example of attempting to meet Ecology's proposed requirement for a one-liter container; the marking is larger than the container. It has been suggested that we could place the small container in a larger container to meet Ecology's proposed marking size; however, this practice precludes easy inspection of accumulation containers and could lead to a situation in which the primary container fails and the failure goes undetected for a period of time. Additionally, our laboratories simply do not have sufficient storage space to place containers in much larger containers just to meet a marking requirement. Second, the distances from which waste containers are visible to staff and emergency responders in laboratories are much shorter than 25 feet. In the typical case of containers stored in chemical storage cabinets, the hazard and dangerous waste markings are not

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				visible until the storage cabinet door is opened. Effective identification of a dangerous waste and its specific hazards can be provided with more appropriately sized text. Ecology has not advanced any information to explain why the criteria that have been in place since 1984 to mark the container clearly with the words "hazardous waste" or "dangerous waste" need to be revised in this manner. The existing Federal and state criteria to "clearly" mark should be adequate, as used in the Dangerous Waste Regulations since 1984, in lieu of setting a minimum size.
283	173-303-174(1)(f)(ii)	Satellite accumulation area regulations for medium quantity generators and large quantity generators	-	**PNNL Comment 30:** Ecology proposes to require that satellite area containers be marked with "an indication of the hazards of the contents." Examples include, but are not limited to, the characteristics and criteria of the waste. This proposed rule deletes the provisions of the GIR that cite the use of Department of Transportation labeling or placarding, Occupational Safety and Health Administration hazard communication standard labels, or a chemical hazard label consistent with the National Fire Protection Association Code 704 as acceptable examples. We object to Ecology's omission of these examples. In its November 15 webinar to discuss the pre-draft regulations, Ecology representatives commented that "none of them" (DOT, OSHA, or NFPA) are adequate to meet Ecology's proposed standard for risk labeling. By deleting these examples, Ecology is in essence adopting a risk labeling system during waste accumulation and storage that directly

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				conflicts with its own requirements [WAC 173-303-190(2)] to label waste with the appropriate DOT warning label prior to shipment. We have previously pointed out to Ecology that the word "toxic" conflicts with the DOT labeling requirement unless the waste is a DOT poison. As a result, any marking of the waste as "toxic" (or any other hazard label that conflicts with DOT labeling requirements), as is frequently required, must be removed from the accumulation container prior to shipment and replaced with the appropriate DOT label. The addition of a separate, conflicting labeling system is unduly burdensome and does not protect human health or the environment. Further, the term "is not limited to" indicates that Ecology may expect generators to provide some unspecified marking for certain types of waste. However, the proposal does not explain when such a marking would be required, or what it would consist of. The rule is thus unclear as to what type of marking is actually required and could be the subject of questions of implementation by inspectors. We strongly recommend that Ecology adopt the language of the GIR regarding marking with "an indication of the hazards of the contents" without modification.
283	173-303-174(1)(f)(ii)(D)	Satellite accumulation area regulations for medium quantity generators and large quantity generators	-	**PNNL Comment 31:** Ecology proposes to require that satellite area containers be marked with "an indication of the hazards of the contents" and that such marking be legible from a distance of 25 feet or the lettering size is a minimum of one half inch in height. We agree that the marking should be of

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				sufficient size to provide reasonable warning to staff and emergency responders. However, Ecology's proposed standard of legibility at 25 feet or ½ inch lettering is unnecessarily restrictive and would be very difficult to implement, particularly in laboratory settings. As a large research institution, most of PNNL's dangerous waste is accumulated in laboratories using small containers, ranging from a few milliliters to 20 liters. In our context, waste must be accumulated in small containers because laboratory waste streams are naturally generated in small quantities and because accumulation of large quantities of waste may exceed fire code limits. Additionally, use of smaller containers is prudent in minimizing the quantity of dangerous waste in busy research laboratory spaces with active processes and equipment, especially for mixed waste. Accumulation containers that are not directly attached to analytical equipment are generally kept in chemical storage cabinets to meet fire code requirements. In the laboratory context, the size requirements proposed by Ecology are inappropriate for two reasons. First, it is not physically possible to mark many of our small containers with markings of the prescribed size (or readable from 25 feet). See the attached photo for an example of attempting to meet Ecology's proposed requirement for a one-liter container; the marking is larger than the container. It has been suggested that we could place the small container in a larger container to meet Ecology's proposed marking size; however, this practice

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				precludes easy inspection of accumulation containers and could lead to a situation in which the primary container fails and the failure goes undetected for a period of time. Additionally, our laboratories simply do not have sufficient storage space to place containers in much larger containers just to meet a marking requirement. Second, the distances from which waste containers are visible to staff and emergency responders in laboratories are much shorter than 25 feet. In the typical case of containers stored in chemical storage cabinets, the hazard and dangerous waste markings are not visible until the storage cabinet door is opened. Effective identification of a dangerous waste and its specific hazards can be provided with more appropriately sized text. Ecology has not advanced any information to explain why the criteria that have been in place since 1984 to mark the container clearly with the words "hazardous waste" or "dangerous waste" need to be revised in this manner. The existing Federal and state criteria to "clearly" mark should be adequate, as used in the Dangerous Waste Regulations since 1984, in lieu of setting a minimum size. Note: This paragraph should probably be designated (A), not (D).
283	173-303-174(1)(f)(ii)(E)	Satellite accumulation area regulations for medium quantity generators and large quantity generators	-	**PNNL Comment 32:** Ecology proposes to require that satellite area containers be marked with "an indication of the hazards of the contents." Such marking must be "understandable to employees, emergency response personnel, the public, and visitors to the site." Ecology's proposal to

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				limit hazard warnings to text descriptions as the only way to achieve "understandability" unnecessarily restricts generators from using established, well-understood hazard warning systems. We believe that limiting the specific hazard warnings to text descriptions is not necessary or even beneficial. We recognize that untrained staff, visitors and the public may not fully understand symbolic hazard warnings (e.g., DOT, NFPA, and OSHA and hazard identification systems). However, text warnings such as "Ignitable", "Toxic" or "Reactive" may also provide little useful information to untrained people. The generic "Hazardous Waste" or "Dangerous Waste" statement is sufficient to warn untrained employees and the public to beware. Hazard-specific labeling is useful only to waste management employees and emergency responders, who are trained to understand DOT, NFPA and OSHA hazard identification systems. In reality, DOT and other hazard identification systems are likely to be more useful to waste management employees and emergency responders than text warnings by virtue of having more specific meanings. As an example, Ecology has suggested that "Ignitable" is an appropriate hazard warning. In fact, "Ignitable" wastes could include flammable liquids, flammable gases, flammable solids or oxidizers, or even combustible liquids -- each of which would require distinctly different approaches to emergency response. In this case the DOT labels, for example, provide far more

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				specific and useful information than Ecology's suggested text warning. The same is certainly true of the "Reactive" hazard description. We recommend Ecology allow utilization of the labeling systems referenced in the GIR, i.e. Department of Transportation, Occupational Safety and Health Administration hazard communication standard, or a chemical hazard label consistent with the National Fire Protection Association Code 704. Note: This paragraph should probably be designated (B), not (E).
284	173-303-174(2)		On a case-by-case basis the department may require the satel-lite accumulation area to be managed in accordance with all or some of the requirements under WAC 173-303-172 or 200 and secondary contain-ment requirements of 173-303-630(7),	**The SAA regulations were supposed to make life easier for generators, but this gives Ecology the ability to decide when additional regulations are required for SAAs.**

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298	173-303-190(3)(b)	Preparing dangerous waste for transport	-	**PNNL Comment 33:** Ecology proposes to require the marking of dangerous waste number(s) on each package of dangerous waste. As a maximum number of waste codes is not specified, clarification that at least the first six applicable waste codes should appear on the marking would be helpful. See EPA's comment response document to the GIR, p. 466, where this EPA policy is reaffirmed. To require each waste code to be written on the label, which is typically 6"x6", would likely be difficult when a large number of waste codes apply to the contents.
300	173-303-190(9)	Preparing dangerous waste for transport	-	**PNNL Comment 34:** Ecology proposes to impose state-only LDRs found at WAC 173-303-140(4)(a) on liquids being disposed of. Imposition of state-only LDRs on waste not destined for land disposal in Washington State is not the intent of the state-only LDRs. Consider substituting the requirements of 40 CFR 268 (incorporated by reference at WAC 173-303-140(2)) for this requirement.
301	173-303-200(1)	Conditions for exemption for a large quantity generator that accumulate dangerous waste on-site/Offsite Shipments	-	**PNNL Comment 35:** This section is proposed to be titled "Off site shipments" [sic]; however, it (correctly) allows for the placement of waste in a permitted on-site facility or treated or recycled on-site. Consider revising the title to "Shipments" or some such.
303	173-303-200(2)(b)(iii)	Conditions for exemption for a large	-	**PNNL Comment 36:** Ecology proposes to start the 90-day accumulation period when "The generator exceeds its satellite

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		quantity generator that accumulate dangerous waste on-site/Accumulation Time Limits		accumulation limits prescribed in WAC 173-303-174(1)." The wording implies that any SAA operated by the generator that exceeds the quantity limits triggers the 90-day accumulation period for all waste being accumulated by the generator. Since a generator may have numerous satellite accumulation areas, the 90-day accumulation period should apply when an individual SAA has reached the satellite accumulation limits. Consider rewording this paragraph to clarify the applicability to the excess accumulation in an individual SAA, for example: "The quantity of dangerous waste being accumulated in a satellite accumulation area exceeds the limits prescribed in WAC 173-303-174(1)."
303	173-303-200(3)(a)	Conditions for exemption for a large quantity generator that accumulate dangerous waste on-site/Accumulation of Waste in Containers	-	**PNNL Comment 37:** Ecology proposes to add several indicators of when a container may not be "in good condition" and thus unsuitable for continued use. These include "severe corroding, rusting, flaking, scaling, and/or apparent structural defects". The current regulation only cites "severe rusting" and "apparent structural defects" as examples. Since these are cited as examples, it appears Ecology is attempting to broaden the basis on which an inspector may question the integrity of a container in storage. It remains the responsibility of the generator (or TSD) to determine if the container is "in good condition" regardless of the defect that may render it otherwise; the added examples appear superfluous. We recommend Ecology not adopt the added examples.

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304	173-303-200(3)(c)(iii)	Conditions for exemption for a large quantity generator that accumulate dangerous waste on-site/Accumulation of Waste in Containers	-	**PNNL Comment 38:** Ecology proposes to add the criterion "…and allow for complete inspection of each container" to the definition of aisle space. The criterion of "complete inspection" is unclear and arbitrary. For instance, if four drums are placed on a pallet with sides touching, are they positioned in such a way to allow "complete inspection"? If drums are placed on the floor or in a secondary containment device so that the underside of the drum cannot be readily observed, does that placement impede "complete inspection"? When Ecology first adopted the thirty-inch aisle space requirement in 1991, it stated the reason was "primarily for the safety of departmental inspectors and to allow access to personnel and equipment to dangerous waste storage and accumulation areas." [1] "Complete inspection" was not cited as a purpose for aisle space. The proposed definition muddles the requirement for aisle space and the requirement to look for "leaking containers and for deterioration of containers" as given in proposed WAC 173-303-200(3)(d). Ecology can evaluate the adequacy of container inspections (e.g. when a two-container-wide row is adjacent to a wall) without adding vague criteria for aisle space. Consider deleting the word "complete" from the proposed paragraph. [1] Ecology, "Responsiveness Summary: Amendments to the Dangerous Waste Regulations", 2/5/1991, p. 29, response 65.

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305	173-303-200(3)(e)	Conditions for exemption for a large quantity generator that accumulate dangerous waste on-site/Accumulation of Waste in Containers	-	**PNNL Comment 39:** Ecology proposes to require that "the central accumulation area(s) include secondary containment in accordance with WAC 173-303-630(7)." This implies that containers not containing free liquids (e.g. used sorbents, dry solids, and lab packs filled with absorbent material) require secondary containment. Consider rewording this requirement, e.g. "…the department requires that the central accumulation area(s) comply with the secondary containment requirements of WAC 173-303-630(7)."
312	173-303-200(7)(a)(ii)	Conditions for exemption for a large quantity generator that accumulate dangerous waste on-site / Labeling and marking of containers and tanks	-	**PNNL Comment 40:** Ecology proposes to require that CAA containers be marked with the words "dangerous waste" or "hazardous waste" and that such marking be legible from a distance of 25 feet or the lettering size is a minimum of one half inch in height. We agree that the marking should be of sufficient size to provide reasonable warning to staff and emergency responders. However, Ecology's proposed standard of legibility at 25 feet or ½ inch lettering is unnecessarily restrictive and would be very difficult to implement, particularly in laboratory settings. As a large research institution, most of PNNL's dangerous waste is accumulated in laboratories using small containers, ranging from a few milliliters to 20 liters. In our context, waste must be accumulated in small containers because laboratory waste streams are naturally generated in small quantities and because accumulation of large quantities of waste may exceed fire code

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				limits. Additionally, use of smaller containers is prudent in minimizing the quantity of dangerous waste in busy research laboratory spaces with active processes and equipment, especially for mixed waste. When transferred to CAAs, these small containers are generally kept in chemical storage cabinets to meet fire code requirements pending being included in a "lab pack" container. In PNNL's context, the size requirements proposed by Ecology are inappropriate for two reasons. First, it is not physically possible to mark many of our small containers with markings of the prescribed size (or readable from 25 feet). See the attached photo for an example of attempting to meet Ecology's proposed requirement for a one-liter container; the marking is larger than the container. It has been suggested that we could place the small container in a larger container to meet Ecology's proposed marking size; however, this practice precludes easy inspection of accumulation containers and could lead to a situation in which the primary container fails and the failure goes undetected for a period of time. Additionally, our laboratories and CAAs do not have sufficient storage space to place containers in much larger containers just to meet a marking requirement. Second, the distances from which waste containers are visible to staff and emergency responders in laboratories and CAAs are much shorter than 25 feet. In the typical case of containers stored in chemical storage cabinets, the hazard and dangerous waste markings are not visible until

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				the storage cabinet door is opened. Effective identification of a dangerous waste and its specific hazards can be provided with more appropriately sized text. Ecology has not advanced any information to explain why the criteria that have been in place since 1984 to mark the container clearly with the words "hazardous waste" or "dangerous waste" need to be revised in this manner. The existing Federal and state criteria to "clearly" mark should be adequate, as used in the Dangerous Waste Regulations since 1984, in lieu of setting a minimum size.
313	173-303-200(7)(a)(iii)	Conditions for exemption for a large quantity generator that accumulate dangerous waste on-site / Labeling and marking of containers and tanks	-	**PNNL Comment 41:** Ecology proposes to require that CAA containers be marked with "an indication of the hazards of the contents." Examples include, but are not limited to, the characteristics and criteria of the waste. This proposed rule deletes the provisions of the GIR that cite the use of Department of Transportation labeling or placarding, Occupational Safety and Health Administration hazard communication standard labels, or a chemical hazard label consistent with the National Fire Protection Association Code 704 as acceptable examples. We object to Ecology's omission of these examples. In its November 15 webinar to discuss the pre-draft regulations, Ecology representatives commented that "none of them" (DOT, OSHA, or NFPA) are adequate to meet Ecology's proposed standard for risk labeling. By deleting these examples, Ecology is in essence adopting a risk labeling system during waste accumulation and storage that directly

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				conflicts with its own requirements [WAC 173-303-190(2)] to label waste with the appropriate DOT warning label prior to shipment. We have previously pointed out to Ecology that the word "toxic" conflicts with the DOT labeling requirement unless the waste is a DOT poison. As a result, any marking of the waste as "toxic" (or any other hazard label that conflicts with DOT labeling requirements), as is frequently required, must be removed from the accumulation container prior to shipment and replaced with the appropriate DOT label. The addition of a separate, conflicting labeling system is unduly burdensome and does not protect human health or the environment. Further, the term "is not limited to" indicates that Ecology may expect generators to provide some unspecified marking for certain types of waste. However, the proposal does not explain when such a marking would be required, or what it would consist of. The rule is thus unclear as to what type of marking is actually required and could be the subject of questions of implementation by inspectors. We strongly recommend that Ecology adopt the language of the GIR regarding marking with "an indication of the hazards of the contents" without modification.
313	173-303-200(7)(a)(iii)(A)	Conditions for exemption for a large quantity generator that accumulate dangerous waste on-site /	-	**PNNL Comment 42:** Ecology proposes to require that CAA containers be marked with "an indication of the hazards of the contents" and that such marking be legible from a distance of 25 feet or the lettering size is a minimum of one half inch in height. We agree that the marking should be of sufficient size

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		Labeling and marking of containers and tanks		to provide reasonable warning to staff and emergency responders. However, Ecology's proposed standard of legibility at 25 feet or ½ inch lettering is unnecessarily restrictive and would be very difficult to implement, particularly in laboratory settings. As a large research institution, most of PNNL's dangerous waste is accumulated in laboratories using small containers, ranging from a few milliliters to 20 liters. In our context, waste must be accumulated in small containers because laboratory waste streams are naturally generated in small quantities and because accumulation of large quantities of waste may exceed fire code limits. Additionally, use of smaller containers is prudent in minimizing the quantity of dangerous waste in busy research laboratory spaces with active processes and equipment, especially for mixed waste. When transferred to CAAs, these small containers are generally kept in chemical storage cabinets to meet fire code requirements pending being included in a "lab pack" container. In PNNL's context, the size requirements proposed by Ecology are inappropriate for two reasons. First, it is not physically possible to mark many of our small containers with markings of the prescribed size (or readable from 25 feet). See the attached photo for an example of attempting to meet Ecology's proposed requirement for a one-liter container; the marking is larger than the container. It has been suggested that we could place the small container in a larger container to meet Ecology's

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				proposed marking size; however, this practice precludes easy inspection of accumulation containers and could lead to a situation in which the primary container fails and the failure goes undetected for a period of time. Additionally, our laboratories and CAAs do not have sufficient storage space to place containers in much larger containers just to meet a marking requirement. Second, the distances from which waste containers are visible to staff and emergency responders in laboratories and CAAs are much shorter than 25 feet. In the typical case of containers stored in chemical storage cabinets, the hazard and dangerous waste markings are not visible until the storage cabinet door is opened. Effective identification of a dangerous waste and its specific hazards can be provided with more appropriately sized text. Ecology has not advanced any information to explain why the criteria that have been in place since 1984 to mark the container clearly with the words "hazardous waste" or "dangerous waste" need to be revised in this manner. The existing Federal and state criteria to "clearly" mark should be adequate, as used in the Dangerous Waste Regulations since 1984, in lieu of setting a minimum size.
313	173-303-200(7)(a)(iii)(B).	Conditions for exemption for a large quantity generator that accumulate dangerous waste on-site /	-	**PNNL Comment 43:** Ecology proposes to require that CAA containers be marked with "an indication of the hazards of the contents." Such marking must be "understandable to employees, emergency response personnel, the public, and visitors to the site." Ecology's proposal to limit hazard

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		Labeling and marking of containers and tanks		warnings to text descriptions as the only way to achieve "understandability" unnecessarily restricts generators from using established, well-understood hazard warning systems. We believe that limiting the specific hazard warnings to text descriptions is not necessary or even beneficial. We recognize that untrained staff, visitors and the public may not fully understand symbolic hazard warnings (e.g., DOT, NFPA, and OSHA and hazard identification systems). However, text warnings such as "Ignitable", "Toxic" or "Reactive" may also provide little useful information to untrained people. The generic "Hazardous Waste" or "Dangerous Waste" statement is sufficient to warn untrained employees and the public to beware. Hazard-specific labeling is useful only to waste management employees and emergency responders, who are trained to understand DOT, NFPA and OSHA hazard identification systems. In reality, DOT and other hazard identification systems are likely to be more useful to waste management employees and emergency responders than text warnings by virtue of having more specific meanings. As an example, Ecology has suggested that "Ignitable" is an appropriate hazard warning. In fact, "Ignitable" wastes could include flammable liquids, flammable gases, flammable solids or oxidizers, or even combustible liquids – each of which would require distinctly different approaches to emergency response. In this case the DOT labels, for example, provide far more specific and useful information than Ecology's

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				suggested text warning. The same is certainly true of the "Reactive" hazard description. We recommend Ecology allow utilization of the labeling systems referenced in the GIR, i.e. Department of Transportation, Occupational Safety and Health Administration hazard communication standard, or a chemical hazard label consistent with the National Fire Protection Association Code 704.
313	173-303-200(7)(b)(ii)	Conditions for exemption for a large quantity generator that accumulate dangerous waste on-site / Labeling and marking of containers and tanks	-	**PNNL Comment 44:** Ecology proposes to require that accumulation tanks be marked with "an indication of the hazards of the contents." Examples include, but are not limited to, the characteristics and criteria of the waste. This proposed rule deletes the provisions of the GIR that cite the use of Department of Transportation labeling or placarding, Occupational Safety and Health Administration hazard communication standard labels, or a chemical hazard label consistent with the National Fire Protection Association Code 704 as acceptable examples. We object to Ecology's omission of these examples. In its November 15 webinar to discuss the pre-draft regulations, Ecology representatives commented that "none of them" (DOT, OSHA, or NFPA) are adequate to meet Ecology's proposed standard for risk labeling. By deleting these examples, Ecology is in essence adopting a risk labeling system during waste accumulation and storage that directly conflicts with its own requirements [WAC 173-303-190(2)] to label waste with the appropriate DOT warning label prior to shipment. We have previously pointed out to Ecology that the

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				word "toxic" conflicts with the DOT labeling requirement unless the waste is a DOT poison. As a result, any marking of the waste as "toxic" (or any other hazard label that conflicts with DOT labeling requirements), as is frequently required, must be removed from the accumulation container prior to shipment and replaced with the appropriate DOT label. The addition of a separate, conflicting labeling system is unduly burdensome and does not protect human health or the environment. Further, the term "is not limited to" indicates that Ecology may expect generators to provide some unspecified marking for certain types of waste. However, the proposal does not explain when such a marking would be required, or what it would consist of. The rule is thus unclear as to what type of marking is actually required and could be the subject of questions of implementation by inspectors. We strongly recommend that Ecology adopt the language of the GIR regarding marking with "an indication of the hazards of the contents" without modification.
314	173-303-200(7)(b)(ii)(B)	Conditions for exemption for a large quantity generator that accumulate dangerous waste on-site / Labeling and marking of containers and tanks	-	**PNNL Comment 45:** Ecology proposes to require that accumulation tanks be marked with "an indication of the hazards of the contents." Such marking must be "understandable to employees, emergency response personnel, the public, and visitors to the site." Ecology's proposal to limit hazard warnings to text descriptions as the only way to achieve "understandability" unnecessarily restricts generators from using established, well-understood hazard warning

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				systems. We believe that limiting the specific hazard warnings to text descriptions is not necessary or even beneficial. We recognize that untrained staff, visitors and the public may not fully understand symbolic hazard warnings (e.g., DOT, NFPA, and OSHA and hazard identification systems). However, text warnings such as "Ignitable", "Toxic" or "Reactive" may also provide little useful information to untrained people. The generic "Hazardous Waste" or "Dangerous Waste" statement is sufficient to warn untrained employees and the public to beware. Hazard-specific labeling is useful only to waste management employees and emergency responders, who are trained to understand DOT, NFPA and OSHA hazard identification systems. In reality, DOT and other hazard identification systems are likely to be more useful to waste management employees and emergency responders than text warnings by virtue of having more specific meanings. As an example, Ecology has suggested that "Ignitable" is an appropriate hazard warning. In fact, "Ignitable" wastes could include flammable liquids, flammable gases, flammable solids or oxidizers, or even combustible liquids – each of which would require distinctly different approaches to emergency response. In this case the DOT labels, for example, provide far more specific and useful information than Ecology's suggested text warning. The same is certainly true of the "Reactive" hazard description. We recommend Ecology allow utilization of the

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				labeling systems referenced in the GIR, i.e. Department of Transportation, Occupational Safety and Health Administration hazard communication standard, or a chemical hazard label consistent with the National Fire Protection Association Code 704.
315	173-303-200(9)(a)	Conditions for exemption for a large quantity generator that accumulate dangerous waste on-site / Personnel training	-	**PNNL Comment 46:** Ecology's proposed rule regarding training follows the logic of the GIR. It also contains one of the errors in the GIR, i.e. using the term "facility personnel" to describe the people requiring training. Since the term "facility personnel" is specifically defined in WAC 173-303-040 as personnel who "work at, or oversee the operations of, a dangerous waste facility…", a generator may not have any "facility personnel" to train unless they operate a dangerous waste facility as well as one or more CAAs. Consider clarifying the applicability of the training requirements to persons that are responsible for the operation of CAAs.
322	173-303-200(12)(c)(ii)(A)	Conditions for exemption for a large quantity generator that accumulate dangerous waste on-site / Closure	-	**PNNL Comment 47:** Ecology's proposed rule setting the standards to be met for closure of a CAA quotes WAC 173-303-610(2)(b)(i), specifying that "primarily, these will be…calculated according to MTCA Method B, although MTCA Method A may be used as appropriate…" While this is reflective of the existing rule, it is still inappropriate for Ecology to suggest that unrestricted use standards (Method A and Method B) should be used to close individual CAAs in an

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				industrial operation, which may (due to historic use, surrounding land uses, and/or zoning restrictions) be properly closed according to the Method C (industrial) standards. Consider removing the reference to Methods A and B.
322	173-303-200(12)(c)(ii)(B)	Conditions for exemption for a large quantity generator that accumulate dangerous waste on-site / Closure	-	**PNNL Comment 48:** Ecology proposes to set closure standards for structures, equipment, bases, liners, etc. "on a case-by-case basis…" The closure of CAAs, unlike the closure of TSD facilities from which this reference is drawn, is likely to be much more frequent and will create a burden for both Ecology and the regulated community. In Ecology's case, it will need to review the conditions at each CAA being closed. For the regulated community, the closure of the CAA will be delayed by Ecology's site-specific standard-setting activity. Consider referencing the "clean debris" standards of 40 CFR 268.45, incorporated by reference at WAC 173-303-140(2) and utilized in Ecology's existing Clean Closure Guidance, as a standard to be followed not requiring Ecology case-by-case approval.
331	173-303-200(15)	Conditions for exemption for a large quantity generator that accumulates dangerous waste	The proposed rule change allows LQGs to receive dangerous waste from an offsite SQG under the	**MSA Comment 6:** Would this practice require the LQG to report "waste received" on the WR form in the annual dangerous waste report?

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			control of the same person without a storage permit or interim status and without complying with the final facility standards of WAC 173-303-600.	
343	173-303-201(9)(a)	Preparedness, prevention, emergency procedures and contingency plans for large quantity generators	-	**PNNL Comment 49:** Ecology's draft requirement contains the statement that when modifications are made to non-dangerous waste provisions in an integrated contingency plan, "the changes do not trigger the need for a dangerous waste permit modification." This reference (copied from WAC 173-303-350(2) standards for TSD facilities) is superfluous here as permits are not required for generator accumulation. Consider deleting the last sentence of this section.
339 - 352	WAC 173-303-201	Preparedness, prevention, emergency procedures and contingency plans for large quantity generators.	Various texts throughout the subsection.	**CHPRC Comment 14:** CHPRC is not in favor of this proposed change because there are several concerns with text in this subsection: 1. The lack of denoting ownership to the generator (i.e., generator facility versus generator's facility) makes

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				this term different than others that are intended to mean the same thing. Notwithstanding, neither of these terms are clear. See next comment. 2. There is no concept of a "generator facility" defined in WAC 173-303-040. Facility is defined with two meanings: one for treatment, storage and disposal units and another for corrective action. The definition does not extend to generator activities. Hanford has many generator locations on the Hanford Facility. Creating a term like "generator facility" may imply that Hanford has multiple facilities on one site and that each facility needs a separate EPA identification number. Please eliminate mention of a "generator facility" and keep generator activities simple and understandable. 3. The language used implies that contingency planning in Washington State must extend beyond what EPA said in response to comments. Of particular concern is the addition of "hazardous substance" to the scope because this would require planning for activities beyond generation and management of dangerous wastes and would extend to virtually any location on the property where the generator activities occur. Such an approach is an overreach of Ecology's authority and goes way beyond the EPA changes, which are limited to accumulation areas and locations where

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				waste is generated. Please make clear that this language is not intended to regulate activities that do not involve dangerous waste generation or dangerous waste management. This is particularly troublesome when coupled with the dubbing of the term "generator facility" and the apparent requirement to design, construct, and operate structures and equipment for product and non-dangerous waste management under potential enforcement of the dangerous waste regulations. Please eliminate the reference to hazardous substances in this provision to make it clear that the WAC 173-303 regulations only apply to dangerous waste activities. 4. Language in WAC 173-303-201(9)(a) that states "When modifications are made to nondangerous waste…provisions in an integrated contingency plan, the changes do not trigger the need for a dangerous waste permit modification" is troublesome and confusing because changes to generator provisions should never require a permit modification and therefore this provision is unjustified as a generator requirement; and the statement that nondangerous waste provisions are not subject to permit modifications could be read to imply that when the "One Plan" is used, then changes to dangerous waste provisions for generators would require a permit

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				modification. Please make clear that generator activities are not subject to permit modifications. 5. WAC 173-303-145 is referenced for inclusion in the contingency plan "description of actions." What purpose is this seemingly redundant provision intended to serve? Please remove it because it could be interpreted as having the effect of unlawfully expanding the scope of the contingency plan to products, including products that have no association with dangerous waste management activities. 6. Use of the language "an emergency telephone number that can be guaranteed to be answered at all times" is perplexing. Guarantees are essentially formal promises or assurances that certain conditions will be fulfilled. Please change the language to simply making someone available at the number at all times, rather than providing a "guarantee." The requirement should be similar to other requirements without confusion. 7. For evacuation scenarios at Hanford, security and uncertainty are potential issues. Please add language indicating that for situations where security or exposure uncertainty is a concern during evacuation, the evacuation routes can be determined by the emergency coordinator and provided at the time of evacuation based on the current conditions.

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				What good is it to describe types and names of dangerous waste in layman's terms to emergency responders who are highly trained and need specific information as opposed to layman terms to properly respond to emergencies? CHPRC cannot find a list of "proper" layman's terms for use to minimize error or misunderstanding.
344	173-303-201(9)(b)(iv)	Preparedness, prevention, emergency procedures and contingency plans for large quantity generators	-	**PNNL Comment 50:** Ecology's draft requirement contains the statement that when new facilities are established, "this list [of emergency coordinators] may be provided at the time of facility certification…rather than as part of the permit application." This sentence (copied from WAC 173-303-350(3)(d) standards for TSD facilities) is superfluous here as permits are not required for generator accumulation. Consider deleting this sentence.
360	173-303-210(c)		For knowledge base designations, records must explain the knowledge basis for the generator's designation.	**While this mirrors the federal rules, it seems appropriate to call out examples for the term "explain."** **Also, "base" should be "based"—with a "d"**
431	WAC 173-303-320	General Inspection	"…such as loading and	**CHPRC Comment 15:** CHPRC is in favor of adopting this language which is also present in 40 CFR.

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			unloading areas…,"	However, please confirm that properly closed containers, in good condition, in static storage areas do not require daily inspections and are subject to the weekly inspections at WAC 173-303-630 or 40 CFR 265 Subpart I if the unit is under interim status.
431, 432	WAC 173-303-320	General Inspection	As part of the review, the Department may modify or amend the schedule as may be necessary;	**CHPRC Comment 16:** CHPRC is not in favor of this proposed change because this language provides no basis for how and why the department would find it necessary to second-guess the facility owner/operator on adequacy of schedule. Any changes to the o/o determined schedule should be limited in basis to evidence that the proposed permit schedule frequency needs changing to avoid problems. Without a firm basis for when schedules will be modified/amended, we cannot count on a consistent or accurate approach.
432	173-303-320(2)(c)	General Inspection	"As part of the review, the Department may modify or amend the schedule as may be necessary"	**WTP Comment 3:** WTP believes language should be expanded to clarify that the Department will provide a regulatory basis for amending the schedule.

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433	WAC 173-303-350		"…in the event of any event or circumstance…"	**CHPRC Comment 17:** CHPRC is not in favor of this proposed change because this language is confusing and overly broad. Contingency plans and emergency procedures should be for emergencies and potential emergencies such as fires or explosion at a dangerous waste facility or a release of dangerous waste that could threaten human health and the environment, not for "events," which could subjectively include almost anything. Please change the subjective term "event" back to "emergency." Please eliminate the reference to hazardous substances because it would unlawfully extend dangerous waste requirements to nondangerous wastes and products.
443	173-303-350(1)	Contingency plan and emergency procedures	-	**PNNL Comment 51:** Ecology proposes to expand the scope of the contingency plan to "…any event or circumstance…" and removes the term "emergency". This proposed change appears to broaden the requirements for a contingency plan well beyond the scope envisioned in the comparable Federal rule, i.e. "fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water." Since the terms "event" and "circumstance" are not defined, the proper scope of a contingency plan is vague and subject to interpretation by individual field inspectors. The scope given in this section should be consistent with the scope anticipated

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				by the requirements in proposed WAC 173-303-350(2), i.e. "emergencies or any sudden or nonsudden releases which threaten human health and the environment." The conflict causes confusion.

438	173-303-360(2)	Emergencies	-	**MSA Comment 7:** Clarity is desired for what constitutes contingency plan implementation. Clarity would be helpful, because there are follow-on actions if/when the contingency plan is implemented [e.g. -360(2)(j) and -360(2)(k)]. Some possible options are shown below:
				
				• The emergency coordinator makes notifications required under -360(2)(d)
				• The emergency coordinator determines
				  ○ An imminent or actual emergency situation exists, or
				  ○ A sudden or non-sudden release occurred and threatens human health and the environment, or
				  ○ The facility has had a release, fire, or explosion which could threaten human health or the environment, or
				  ○ A facility received dangerous waste shipment, which is damaged or otherwise presents a hazard to the public health and the environment, and is not acceptable to the owner or operator, but can-

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				not be transported, pursuant to the requirements of WAC 173-303, or ○ An event or circumstance occurred that threatens human health and the environment (including but not limited to, a fire, natural disaster, explosion, or unplanned sudden or non-sudden release of dangerous waste, hazardous substance or dangerous waste constituents to air, soil, surface water, or groundwater) In the early stages of an event, workers may engage in discovery and evaluation processes. Also, precautionary measures might be taken such as activating an alarm or evacuating a work area while the emergency coordinator collects information. Some of these initial activities may be called-out in the contingency plan. However, it seem illogical to declare contingency plan "implementation," simply because some initial event response activities described in the contingency plan are executed. Instead, contingency plan "implementation" should be coupled with an emergency coordinator determination that a "threat" to human health and the environment exists. NOTE, at Hanford, the permittee and Ecology have devoted considerable effort to defining criteria to determine if/when the contingency plan is "implemented." The criteria were

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				developed for incorporation into the Hanford's Dangerous Waste permit and are consistent with the logic above, whereby, "implementation" is based on an emergency coordinator determination that a "threat" exists and not mere execution of initial response activities and/or precautionary measures. Below is draft language collaboratively developed by Ecology and the Department of Energy for use in an upcoming Class 3 permit modification to revise Hanford's Dangerous Waste permit. *The BED/BW/IC must use the following criteria to determine if an emergency event is subject to contingency plan implementation and notifications requirements of WAC-173-303-350 and WAC-173-303-360:* *(1) The event involved an unplanned spill, release, fire, or explosion;* ***AND*** *(2a) The unplanned spill or release involved a dangerous waste, or the material involved became a dangerous waste as a result of the event,*

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				or *(2b) The unplanned fire or explosion occurred at a facility or transportation activity subject to the dangerous waste contingency plan requirements;* ***AND*** *(3) The emergency circumstance could pose a threat to human health or the environment.*
438	173-303-360(2)	Emergencies	-	**MSA Comment 8:** The proposed rule states: *The following procedures must be implemented in the event of an emergency or any event or circumstance identified in WAC 173-303-350.* Please consider not referencing -350. The proposed reference to -350 creates a bit of a circular reference problem. The first sentence in section -350 refers the reader to -360. Perhaps a better approach might be to state the events that require implementation of the steps under -360(2) (i.e., fire, release, or explosion that threaten human health or the environment.) If Ecology decides a reference to -350 is appropriate, could clarity be added to specify which portion(s) of -350 are being referenced. Does the reference relate to: • -350(1)?

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				• -350(2)? • -350(3)? • Some combination of the above?
438	173-303-360(2)	Emergencies	-	**PNNL Comment 52:** Ecology proposes to broaden the "emergency procedures" of this section to be implemented whenever "any event or circumstance identified in WAC 173-303-350" occurs. This proposed requirement conflicts with proposed WAC 173-303-350(2) as to the scope of the contingency plan and makes it unclear as to when emergency procedures are to be used to respond to non-emergency situations, as proposed WAC 173-303-350(1) deletes the reference to "emergencies". Emergency procedures should be utilized only in the event of a true emergency. The added vagueness proposed here does not support the timely, skillful response to an emergency, only the reference to some sort of decision tree (perhaps) that determines the proper scope and timing of a response. Consider deleting the proposed addition.
487	173-303-395(6)	Other general requirements/Labeling for containers and tanks	-	**PNNL Comment 53:** Ecology proposes to require that containers be marked with "an indication of the hazards of the contents." Examples include, but are not limited to, the characteristics and criteria of the waste. This proposed rule deletes the provisions of the GIR that cite the use of Department of Transportation labeling or placarding, Occupational Safety and Health Administration hazard

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				communication standard labels, or a chemical hazard label consistent with the National Fire Protection Association Code 704 as acceptable examples. We object to Ecology's omission of these examples. In its November 15 webinar to discuss the pre-draft regulations, Ecology representatives commented that "none of them" (DOT, OSHA, or NFPA) are adequate to meet Ecology's proposed standard for risk labeling. By deleting these examples, Ecology is in essence adopting a risk labeling system during waste accumulation and storage that directly conflicts with its own requirements [WAC 173-303-190(2)] to label waste with the appropriate DOT warning label prior to shipment. We have previously pointed out to Ecology that the word "toxic" conflicts with the DOT labeling requirement unless the waste is a DOT poison. As a result, any marking of the waste as "toxic" (or any other hazard label that conflicts with DOT labeling requirements), as is frequently required, must be removed from the accumulation container prior to shipment and replaced with the appropriate DOT label. The addition of a separate, conflicting labeling system is unduly burdensome and does not protect human health or the environment. Further, the term "is not limited to" indicates that Ecology may expect generators to provide some unspecified marking for certain types of waste. However, the proposal does not explain when such a marking would be required, or what it would consist of. The rule is thus unclear as to what type of marking is actually required and could be

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				the subject of questions of implementation by inspectors. We strongly recommend that Ecology adopt the language of the GIR regarding marking with "an indication of the hazards of the contents" without modification.
487	173-303-395(6)	Other general requirements/Labeling for containers and tanks	-	**PNNL Comment 54:** Ecology proposes to require that containers be marked with "an indication of the hazards of the contents" and that such marking be legible from a distance of 25 feet or the lettering size is a minimum of one half inch in height. We agree that the marking should be of sufficient size to provide reasonable warning to staff and emergency responders. However, Ecology's proposed standard of legibility at 25 feet or ½ inch lettering is unnecessarily restrictive and would be very difficult to implement, particularly in laboratory settings. As a large research institution, most of PNNL's dangerous waste is accumulated in laboratories using small containers, ranging from a few milliliters to 20 liters. In our context, waste must be accumulated in small containers because laboratory waste streams are naturally generated in small quantities and because accumulation of large quantities of waste may exceed fire code limits. Additionally, use of smaller containers is prudent in minimizing the quantity of dangerous waste in busy research laboratory spaces with active processes and equipment, especially for mixed waste. During accumulation and storage, the size requirements proposed by Ecology are inappropriate for two reasons. First, it is not physically possible to mark

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				many of our small containers with markings of the prescribed size (or readable from 25 feet). See the attached photo for an example of attempting to meet Ecology's proposed requirement for a one-liter container; the marking is larger than the container. It has been suggested that we could place the small container in a larger container to meet Ecology's proposed marking size; however, this practice precludes easy inspection of accumulation containers and could lead to a situation in which the primary container fails and the failure goes undetected for a period of time. Additionally, our accumulation and storage areas do not have sufficient space to place containers in much larger containers just to meet a marking requirement. Second, the distances from which waste containers are visible to staff and emergency responders in accumulation and storage are much shorter than 25 feet. In the typical case of containers stored in chemical storage cabinets, the hazard and dangerous waste markings are not visible until the storage cabinet door is opened. Effective identification of a dangerous waste and its specific hazards can be provided with more appropriately sized text. Ecology has not advanced any information to explain why the criteria that have been in place since 1984 to mark the container clearly with the words "hazardous waste" or "dangerous waste" need to be revised in this manner. The existing Federal and state criteria to "clearly" mark should be adequate, as used in the Dangerous

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				Waste Regulations since 1984, in lieu of setting a minimum size.
487	173-303-395(6)	Other general requirements/Labeling for containers and tanks	-	**PNNL Comment 55:** Ecology proposes to require that containers be marked with "an indication of the hazards of the contents." Such marking must be "understandable to employees, emergency response personnel, the public, and visitors to the site." Ecology's proposal to limit hazard warnings to text descriptions as the only way to achieve "understandability" unnecessarily restricts generators from using established, well-understood hazard warning systems. We believe that limiting the specific hazard warnings to text descriptions is not necessary or even beneficial. We recognize that untrained staff, visitors and the public may not fully understand symbolic hazard warnings (e.g., DOT, NFPA, and OSHA and hazard identification systems). However, text warnings such as "Ignitable", "Toxic" or "Reactive" may also provide little useful information to untrained people. The generic "Hazardous Waste" or "Dangerous Waste" statement is sufficient to warn untrained employees and the public to beware. Hazard-specific labeling is useful only to waste management employees and emergency responders, who are trained to understand DOT, NFPA and OSHA hazard identification systems. In reality, DOT and other hazard identification systems are likely to be more useful to waste management employees and emergency responders than text warnings by virtue of having more specific meanings. As an

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				example, Ecology has suggested that "Ignitable" is an appropriate hazard warning. In fact, "Ignitable" wastes could include flammable liquids, flammable gases, flammable solids or oxidizers, or even combustible liquids -- each of which would require distinctly different approaches to emergency response. In this case the DOT labels, for example, provide far more specific and useful information than Ecology's suggested text warning. The same is certainly true of the "Reactive" hazard description. We recommend Ecology allow utilization of the labeling systems referenced in the GIR, i.e. Department of Transportation, Occupational Safety and Health Administration hazard communication standard, or a chemical hazard label consistent with the National Fire Protection Association Code 704.
487	173-303-395(6)	Other General Requirements	"The owner or operator must label containers and tanks in a manner which adequately identifies the the hazard of the contents (examples include, but not limited to, the	**WTP Comment 4:** The text of this section contains a typo, in addition WTP believes this text (also repeated in numerous other sections) should provide the same flexibility as the federal regulations which allow the use of other hazard recognition programs (DOT, OSHA) to meet the labeling requirements. Provide justification why more restrictive labeling requirements than allowed by federal regulation are warranted (why the labeling allowed by federal regulation is not protective of human health or the environment).

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			applicable dangerous waste characteristic(s) and criteria or ignitable, corrosive, reactive and toxic and the applicable hazard(s) identified for listed dangerous waste).	
491	173-303-400(2)(c)(vi)	Interim status facility standards/Applicability	-	**PNNL Comment 56:** Ecology proposes to apply the accumulation standards for large quantity generators or medium quantity generators to generators adding absorbents to waste at the time the waste is first placed into a new container. This is not entirely consistent with the GIR, which allows compliance with the "applicable conditions for exemption" for satellite accumulation and very small quantity generator requirements as well as those for medium and large quantity generators. There is no apparent reason why Ecology should impose the entire suite of medium or large quantity generator requirements on addition of sorbents during satellite accumulation or on small quantity generators. Consider revising this section to be more consistent with the GIR, e.g.

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				"…and the generator complies with the applicable conditions for exemption in WAC 173-303-171, 173-303-172, 173-303-173, 173-303-174, 173-303-200 through -201, or 173-303-235, and with 173-303-395(1)(a) and (b)."
492	173-303-400(2)(c)(vii)	Interim status facility standards/Applicability	-	**PNNL Comment 57:** Ecology proposes to apply the accumulation standards for large quantity generators or medium quantity generators to generators compacting or sorting waste in containers. This is not entirely consistent with the GIR, which allows compliance with the "applicable conditions for exemption" for satellite accumulation and small quantity generator requirements as well as those for medium and large quantity generators. There is no apparent reason why Ecology should impose the entire suite of medium or large quantity generator requirements on compaction or sorting during satellite accumulation or on very small quantity generators. Consider revising this section to be more consistent with the GIR, e.g. "…and the generator complies with the applicable conditions for exemption in WAC 173-303-171, 173-303-172, 173-303-173, 173-303-174, 173-303-200 through -201, or 173-303-235, and with 173-303-395(1)(a) and (b)."
632	173-303-600(3)(d)	Final facility standards	-	**PNNL Comment 58:** Ecology proposes to list meeting the conditions for exemption for small quantity, medium quantity, satellite, and large quantity accumulation as exempt from the need to acquire a final status permit, which is appropriate.

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				However, Ecology uses the word "and" in this list, then attempts to clarify using the term "respectively". This is not adequately clear as to what conditions must be met to be exempt. Consider using the term "or" as is used in the GIR, e.g., "A generator accumulating waste on site in compliance with WAC 173-303-171, 173-303-172, 173-303-174, or 173-303-200 through 173-303-201, as appropriate."
634	173-303-600(3)(k)	Final facility standards	-	**PNNL Comment 59:** Ecology proposes to apply the accumulation standards for large quantity generators or medium quantity generators to generators adding absorbents to waste at the time the waste is first placed into a new container. This is not entirely consistent with the GIR, which allows compliance with the "applicable conditions for exemption" for satellite accumulation and very small quantity generator requirements as well as those for medium and large quantity generators. There is no apparent reason why Ecology should impose the entire suite of medium or large quantity generator requirements on addition of sorbents during satellite accumulation or on small quantity generators. Consider revising this section to be more consistent with the GIR, e.g. "…and the generator complies with the applicable conditions for exemption in WAC 173-303-171, 173-303-172, 173-303-173, 173-303-174, 173-303-200 through -201, or 173-303-235, and with 173-303-395(1)(a) and (b)."

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634	173-303-600(3)(l)	Final facility standards	-	**PNNL Comment 60:** Ecology proposes to apply the accumulation standards for large quantity generators or medium quantity generators to generators compacting or sorting waste in containers. This is not entirely consistent with the GIR, which allows compliance with the "applicable conditions for exemption" for satellite accumulation and small quantity generator requirements as well as those for medium and large quantity generators. There is no apparent reason why Ecology should impose the entire suite of medium or large quantity generator requirements on compaction or sorting during satellite accumulation or on very small quantity generators. Consider revising this section to be more consistent with the GIR, e.g. "…and the generator complies with the applicable conditions for exemption in WAC 173-303-171, 173-303-172, 173-303-173, 173-303-174, 173-303-200 through -201, or 173-303-235, and with 173-303-395(1)(a) and (b)."
687	173-303-630	Use and management of containers. (2) Condition of containers	(e.g., severe corroding, severe rusting, flaking, scaling, and/or apparent structural defects)	**CHPRC Comment 19:** CHPRC is not in favor of this proposed change because the abbreviation "e.g." or exempli gratia, when bracketed is generally interpreted to be a listing of independent examples (severe might not apply to all that follow in the applicable text). To eliminate confusion, the qualifier "severe should remain in front of rusting as a standalone example within the list. It is also commonly understood that exempli gratia is not a comprehensive list.

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				Therefore, and/or is does not make sense as it could lead to structural defects. Recommend the following: (e.g. severe corroding, severe rusting, severe flaking, severe scaling, apparent structural defects)
246 304 702	173-303-630	Use and management of containers. (5) Management of containers	A row of containers must be no more than two wide and allow for complete inspection of each container.	**CHPRC Comment 20:** CHPRC is not in favor of this proposed change, as the term "Complete" in the phrase "…and allow for complete inspection of each container" appears to introduce issues that are inconsistent with Ecology permitting principles of "implementability" and "enforceability". Inspection of dangerous waste containers requires evaluation to assess condition, and to make a timely determination that a container is in good condition, or subject to repackaging and/or other WAC compliant management. Addition of the term "complete" could lead an inspector to conclude that the inability to directly examine the underside of a stored container renders the inspection incomplete, and therefore subject to a compliance violation. If containers (e.g., drums) are stored in an otherwise permit compliant two-wide configuration, inspectors could find that the inside walls of the drums are not "completely inspectable". The regulated community has no interest in retaining waste in containers that are incapable of constraining their contents. To this end, inspection of containers where, for example, the bottoms are on a solid surface, and cannot be visually inspected requires a

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				qualitative evaluation of the container and its contents to determine compliance with WAC 173-303-630. This can be different depending upon whether the container stores liquid or non-liquid waste, as it could be stored on spill pallets or other devices capable of demonstrating base containment. EPA has addressed container storage arrangement precluding inspection by indicating that arrangement (strapping together) should not preclude accessibility of "significant portions of the containers" from inspection. Although the defining of "significant portions" presents some ambiguity, it does allow an inspector some latitude in determining whether or not containers can be adequately inspected. CHPRC also has very large containers (boxes ~10' X 10' X 20') that preclude practical inspection of the top or the bottom of the containers. CHPRC also has containers stored in engineered racks that can be three tiers high. Current inspection protocols require CHPRC inspectors to view the visible portions of the containers and to note any evidence of leaks from the containers but the use of a man-lift, or mirrors on extension poles, or removing all containers from the 2nd and 3rd tiers of rack storage to conduct an inspection on the floor, etc., is a tremendous expenditure of time and money to achieve no added benefit to HH&E.

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				CHPRC questions whether this language is intended to require a change in how container inspections are accomplished or is it intended to clarify existing language? If this is a change in expectations for inspections, please explain why this requirement needs to be made more stringent after being in place on a federal basis for over 37 years. Please provide specific information regarding Ecology's expectations for satisfying this requirement. It seems reasonable that a "complete inspection" should be involve a graded approach based on the type of waste stored and could often be accomplished without necessarily observing every square inch of a container's external surface. For example, the inspection approach for highly reactive wastes might be different than for soil with trace amounts of listed solvent that exhibits no characteristics of dangerous waste. It is not reasonable to establish a rigid standard for inspection that will be difficult to achieve and add no addition benefit to protection of HH&E. And, as stated by EPA in the May 19, 1980, Federal Register on page 33199, which promulgated the container inspection regulations: *"These regulations generally require nothing more than simple good practices in the management of containers of hazardous wastes – a level of care commensurate with the*

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				hazardous nature of the wastes stored. The Agency believes that these regulations should not be difficult to implement, and that they will provide a great improvement in the problems posed by current bad practices." Ecology's proposed wording for "complete inspections" would be beyond simple good practices and would be difficult to implement, and again not provide added protection to HH&E.
700	173-303-630(2)	Use and management of containers/ Condition of containers	-	**PNNL Comment 61:** Ecology proposes to add several indicators of when a container may not be "in good condition" and thus unsuitable for continued use. These include "severe corroding, rusting, flaking, scaling, and/or apparent structural defects". The current regulation only cites "severe rusting" and "apparent structural defects" as examples. Since these are cited as examples, it appears Ecology is attempting to broaden the basis on which an inspector may question the integrity of a container in storage. It remains the responsibility of the generator (or TSD) to determine if the container is "in good condition" regardless of the defect that may render it otherwise; the added examples appear superfluous. We recommend Ecology not adopt the added examples.
700	173-303-630(3)(i)	Use and management of containers/	-	**PNNL Comment 62:** Ecology proposes to require that containers be marked with the words "dangerous waste" or

Table 1. Generator Improvement Rule (GIR) Comments				
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		Identification of containers		"hazardous waste" and that such marking be legible from a distance of 25 feet or the lettering size is a minimum of one half inch in height. We agree that the marking should be of sufficient size to provide reasonable warning to staff and emergency responders. However, Ecology's proposed standard of legibility at 25 feet or ½ inch lettering is unnecessarily restrictive and would be very difficult to implement, particularly in laboratory settings. As a large research institution, most of PNNL's dangerous waste is accumulated in laboratories using small containers, ranging from a few milliliters to 20 liters. In our context, waste must be accumulated in small containers because laboratory waste streams are naturally generated in small quantities and because accumulation of large quantities of waste may exceed fire code limits. Additionally, use of smaller containers is prudent in minimizing the quantity of dangerous waste in busy research laboratory spaces with active processes and equipment, especially for mixed waste. During both accumulation and storage, the size requirements proposed by Ecology are inappropriate for two reasons. First, it is not physically possible to mark many of our small containers with markings of the prescribed size (or readable from 25 feet). See the attached photo for an example of attempting to meet Ecology's proposed requirement for a one-liter container; the marking is larger than the container. It has been suggested that we could place the small container in a larger container to

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				meet Ecology's proposed marking size; however, this practice precludes easy inspection of accumulation containers and could lead to a situation in which the primary container fails and the failure goes undetected for a period of time. Additionally, our storage units simply do not have sufficient space to place containers in much larger containers just to meet a marking requirement. Second, the distances from which waste containers are visible to staff and emergency responders in our storage units are much shorter than 25 feet. In the typical case of containers stored in chemical storage cabinets, the hazard and dangerous waste markings are not visible until the storage cabinet door is opened. Effective identification of a dangerous waste and its specific hazards can be provided with more appropriately sized text. Ecology has not advanced any information to explain why the criteria that have been in place since 1984 to mark the container clearly with the words "hazardous waste" or "dangerous waste" need to be revised in this manner. The existing Federal and state criteria to "clearly" mark should be adequate, as used in the Dangerous Waste Regulations since 1984, in lieu of setting a minimum size. Note: This paragraph should probably be designated (3)(a).
701	173-303-630(3)(ii)	Use and management of containers/ Identification of containers	-	**PNNL Comment 63:** Ecology proposes to require that containers be marked with "an indication of the hazards of the contents." Examples include, but are not limited to, the characteristics and criteria of the waste. This proposed rule

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				deletes the provisions of the GIR that cite the use of Department of Transportation labeling or placarding, Occupational Safety and Health Administration hazard communication standard labels, or a chemical hazard label consistent with the National Fire Protection Association Code 704 as acceptable examples. We object to Ecology's omission of these examples. In its November 15 webinar to discuss the pre-draft regulations, Ecology representatives commented that "none of them" (DOT, OSHA, or NFPA) are adequate to meet Ecology's proposed standard for risk labeling. By deleting these examples, Ecology is in essence adopting a risk labeling system during waste accumulation and storage that directly conflicts with its own requirements [WAC 173-303-190(2)] to label waste with the appropriate DOT warning label prior to shipment. We have previously pointed out to Ecology that the word "toxic" conflicts with the DOT labeling requirement unless the waste is a DOT poison. As a result, any marking of the waste as "toxic" (or any other hazard label that conflicts with DOT labeling requirements), as is frequently required, must be removed from the accumulation container prior to shipment and replaced with the appropriate DOT label. The addition of a separate, conflicting labeling system is unduly burdensome and does not protect human health or the environment. Further, the term "is not limited to" indicates that Ecology may expect generators to provide some unspecified marking for certain types of waste. However, the

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				proposal does not explain when such a marking would be required, or what it would consist of. The rule is thus unclear as to what type of marking is actually required and could be the subject of questions of implementation by inspectors. We strongly recommend that Ecology adopt the language of the GIR regarding marking with "an indication of the hazards of the contents" without modification. Note: This paragraph should probably be designated (3)(b).
701	173-303-630(3)(ii)(A)	Use and management of containers/ Identification of containers	-	**PNNL Comment 64:** Ecology proposes to require that containers be marked with "an indication of the hazards of the contents" and that such marking be legible from a distance of 25 feet or the lettering size is a minimum of one half inch in height. We agree that the marking should be of sufficient size to provide reasonable warning to staff and emergency responders. However, Ecology's proposed standard of legibility at 25 feet or ½ inch lettering is unnecessarily restrictive and would be very difficult to implement, particularly in laboratory settings. As a large research institution, most of PNNL's dangerous waste is accumulated in laboratories using small containers, ranging from a few milliliters to 20 liters. In our context, waste must be accumulated in small containers because laboratory waste streams are naturally generated in small quantities and because accumulation of large quantities of waste may exceed fire code limits. Additionally, use of smaller containers is prudent in minimizing the quantity of dangerous waste in busy research

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				laboratory spaces with active processes and equipment, especially for mixed waste. During both accumulation and storage, the size requirements proposed by Ecology are inappropriate for two reasons. First, it is not physically possible to mark many of our small containers with markings of the prescribed size (or readable from 25 feet). See the attached photo for an example of attempting to meet Ecology's proposed requirement for a one-liter container; the marking is larger than the container. It has been suggested that we could place the small container in a larger container to meet Ecology's proposed marking size; however, this practice precludes easy inspection of accumulation containers and could lead to a situation in which the primary container fails and the failure goes undetected for a period of time. Additionally, our storage units simply do not have sufficient space to place containers in much larger containers just to meet a marking requirement. Second, the distances from which waste containers are visible to staff and emergency responders in our storage units are much shorter than 25 feet. In the typical case of containers stored in chemical storage cabinets, the hazard and dangerous waste markings are not visible until the storage cabinet door is opened. Effective identification of a dangerous waste and its specific hazards can be provided with more appropriately sized text. Ecology has not advanced any information to explain why the criteria that have been in place since 1984 to mark the container clearly

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				with the words "hazardous waste" or "dangerous waste" need to be revised in this manner. The existing Federal and state criteria to "clearly" mark should be adequate, as used in the Dangerous Waste Regulations since 1984, in lieu of setting a minimum size. Note: This paragraph should probably be designated (3)(b)(i).
701	173-303-630(3)(ii)(B)	Use and management of containers/ Identification of containers	-	**PNNL Comment 65:** Ecology proposes to require that containers be marked with "an indication of the hazards of the contents." Such marking must be "understandable to employees, emergency response personnel, the public, and visitors to the site." Ecology's proposal to limit hazard warnings to text descriptions as the only way to achieve "understandability" unnecessarily restricts generators from using established, well-understood hazard warning systems. We believe that limiting the specific hazard warnings to text descriptions is not necessary or even beneficial. We recognize that untrained staff, visitors and the public may not fully understand symbolic hazard warnings (e.g., DOT, NFPA, and OSHA and hazard identification systems). However, text warnings such as "Ignitable", "Toxic" or "Reactive" may also provide little useful information to untrained people. The generic "Hazardous Waste" or "Dangerous Waste" statement is sufficient to warn untrained employees and the public to beware. Hazard-specific labeling is useful only to waste management employees and emergency responders, who are trained to understand DOT, NFPA and OSHA hazard

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				identification systems. In reality, DOT and other hazard identification systems are likely to be more useful to waste management employees and emergency responders than text warnings by virtue of having more specific meanings. As an example, Ecology has suggested that "Ignitable" is an appropriate hazard warning. In fact, "Ignitable" wastes could include flammable liquids, flammable gases, flammable solids or oxidizers, or even combustible liquids – each of which would require distinctly different approaches to emergency response. In this case the DOT labels, for example, provide far more specific and useful information than Ecology's suggested text warning. The same is certainly true of the "Reactive" hazard description. We recommend Ecology allow utilization of the labeling systems referenced in the GIR, i.e. Department of Transportation, Occupational Safety and Health Administration hazard communication standard, or a chemical hazard label consistent with the National Fire Protection Association Code 704. Note: This paragraph should probably be designated (3)(b)(ii).
702	173-303-630(5)(c)	Use and management of containers/ Management of containers	-	**PNNL Comment 66:** Ecology proposes to add the criterion "…and allow for complete inspection of each container" to the definition of aisle space. The criterion of "complete inspection" is unclear and arbitrary. For instance, if four drums are placed on a pallet with sides touching, are they positioned in such a way to allow "complete inspection"? If drums are placed on the floor or in a secondary containment

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				device so that the underside of the drum cannot be readily observed, does that placement impede "complete inspection"? When Ecology first adopted the thirty-inch aisle space requirement in 1991, it stated the reason was "primarily for the safety of departmental inspectors and to allow access to personnel and equipment to dangerous waste storage and accumulation areas."[2] "Complete inspection" was not cited as a purpose for aisle space. The proposed definition muddles the requirement for aisle space and the requirement to look for "leaking containers and for deterioration of containers" as given in existing WAC 173-303-630(6). Ecology can evaluate the adequacy of container inspections (e.g. when a two-container-wide row is adjacent to a wall) without adding vague criteria for aisle space. Consider deleting the word "complete" from the proposed paragraph. Suggest substituting the words "adequate" or "sufficient" as plausible alternatives for "complete" inspection as criteria for aisle space. [2] Ecology, "Responsiveness Summary: Amendments to the Dangerous Waste Regulations", 2/5/1991, p. 29, response 65.
703	173-303-630(6)	Use and management of containers/ Inspections	-	**PNNL Comment 67:** Ecology proposes to require that weekly inspections be "conducted no more than seven consecutive calendar days from the last inspection". Ecology's proposed requirement is drawn, in part, from a 1983 guidance document prepared by EPA that defines weekly inspections this way; Ecology has insisted that it must therefore define weekly

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WAC Draft Rule pdf pg #	**WAC Citation**	**Title**	**Applicable Text**	**Comment**
				inspections this way in order to be "consistent with the Federal program". However, EPA has more recently specifically addressed the timing of "at least weekly" in the Generator Improvements Rule Response to Comments document ("Hazardous Waste Generator Improvements Final Rule Response to Comments Document, Summaries and Responses, October 4, 2016, available at https://www.regulations.gov/document?D=EPA-HQ-RCRA-2012-0121-0312). In this document, EPA stated 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…" Ecology has not provided a reason why the flexibility to perform a weekly inspection once each calendar week should not be offered to the regulated public. The outcome is 52 weekly inspections regardless of how the time period between inspections is calculated. Weekly inspections should be conducted once each calendar week, consistent with EPA's interpretation.
732	173-303-640(5)(d)(i)	Tank systems/General operating requirements	-	**PNNL Comment 68:** Ecology proposes to add a requirement that underground tank systems have labels or signs above ground. Ecology has not explained how such signs would serve any useful purpose for a closed tank, pipe or appurtenant equipment buried several feet below ground. The situation would be different if the tank system component has an above-

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WAC Draft Rule pdf pg #	**WAC Citation**	**Title**	**Applicable Text**	**Comment**
				ground component (e.g. a vent pipe or access way) that should warn personnel of the hazard(s) of the waste. Such above-ground structures would likely be considered part of the "active portion" of the TSD in any case. Consider deleting the phrase "aboveground postings above each underground tank system" from the proposed rule.
732	173-303-640(5)(d)(i)	Tank Systems	"Marked with labels or signs to identify the waste contained in the tank legible at a distance of at least fifty feet. For underground tank system, lables or signs must be either placed on aboveground postings above each underground tank system or at each entrance to the active portion (area where the	**WTP Comment 5:** The text of this section contains a typo, in addition WTP requests that unaccessible aboveground tanks be included in this section so that labels or signs are only required at the entrance to the rooms holding such tanks. WTP will have many tanks located in areas with high radiation fields that will limit access to the tanks (making labeling of the tanks and inspecting the labels a physical hazard to employees).

Table 1. Generator Improvement Rule (GIR) Comments				
WAC Draft Rule pdf pg #	**WAC Citation**	**Title**	**Applicable Text**	**Comment**
			underground tank system is located.	
732	173-303-640(5)(d)(ii)	Tank systems/ General operating requirements	-	**PNNL Comment 69:** Ecology proposes to retain the requirement that the marking "Dangerous Waste" or "Hazardous Waste" be legible at a distance of 50 feet from the tank. This requirement is impractical for waste tanks located in vaults or basements where access is limited. For instance, a tank may be in a closed room accessed only by a short hallway. Ecology's interpretation is that the sign must be visible (not "legible") 50 feet from the entrance to the room, which would necessitate placing the sign at such a distance that the location of the hazard is indistinguishable. This proposed requirement also is made for underground tank systems; see comment on WAC 173-303-640(5)(d)(i). Consider revising this requirement to read "…legible at a distance of at least fifty feet for outdoor tanks and twenty-five feet for indoor tanks, and for underground tank systems, the marking must be placed at each entrance to the active portion."
732	173-303-640(5)(d)(iii)	Tank systems/ General operating requirements	-	**PNNL Comment 70:** Ecology proposes to require that tanks be marked with "an indication of the hazards of the contents." Such marking must be "understandable to employees, emergency response personnel, the public, and visitors to the site." Ecology's proposal to limit hazard warnings to text descriptions as the only way to achieve "understandability" unnecessarily restricts generators from using established, well-

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WAC Draft Rule pdf pg #	**WAC Citation**	**Title**	**Applicable Text**	**Comment**
				understood hazard warning systems. We believe that limiting the specific hazard warnings to text descriptions is not necessary or even beneficial. We recognize that untrained staff, visitors and the public may not fully understand symbolic hazard warnings (e.g., DOT, NFPA, and OSHA and hazard identification systems). However, text warnings such as "Ignitable", "Toxic" or "Reactive" may also provide little useful information to untrained people. The generic "Hazardous Waste" or "Dangerous Waste" statement is sufficient to warn untrained employees and the public to beware. Hazard-specific labeling is useful only to waste management employees and emergency responders, who are trained to understand DOT, NFPA and OSHA hazard identification systems. In reality, DOT and other hazard identification systems are likely to be more useful to waste management employees and emergency responders than text warnings by virtue of having more specific meanings. As an example, Ecology has suggested that "Ignitable" is an appropriate hazard warning. In fact, "Ignitable" wastes could include flammable liquids, flammable gases, flammable solids or oxidizers, or even combustible liquids – each of which would require distinctly different approaches to emergency response. In this case the DOT labels, for example, provide far more specific and useful information than Ecology's suggested text warning. The same is certainly true of the "Reactive" hazard description. We recommend Ecology allow

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WAC Draft Rule pdf pg #	**WAC Citation**	**Title**	**Applicable Text**	**Comment**
				utilization of the labeling systems referenced in the GIR, i.e. Department of Transportation, Occupational Safety and Health Administration hazard communication standard, or a chemical hazard label consistent with the National Fire Protection Association Code 704.
770	173-303-830 Appendix I	Modifications	5. Changes in the training ~~plan~~program: a. That affect the type or decrease the amount of training given to employees 2	**CHPRC Comment 21:** CHPRC is not in favor of this proposed change because the intent of this change is not presented in the change proposal. WAC 173-303-330(1) indicates that the training program must include those elements set forth in the training plan required in subsection (2) of this section. Therefore, this change appears to significantly broaden the requirement to modify the Dangerous Waste permit based on changes to the Training Plan (as currently required), and now the Program (as proposed in WAC 173-303-330(1)). A Training Program as described at WAC 173-303-330(1) directs such functions as administration, participation, timely completion, and interim supervision, which are accountable requirements via regulation. Whereas, the more specific requirements of the Training Plan ensure that specific personnel are adequately trained based on their Dangerous Waste Management related tasks. Therefore, the need for increased permit accountability (as apparently represented by the proposed change) may have the unintended consequence of constricting positive change to the training program, absent enhancement of permit required plans to train dangerous waste workers.

Table 1. Generator Improvement Rule (GIR) Comments				
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				Please provide an explanation of the intent of this proposed change.
784	173-303-830, Appendix I, B.5	Permit Modification Classes	Proposed change replaces "plan" with "program"	**MSA Comment 9:** This change seems appropriate, as long as Ecology and permittees have a common understanding of what "program" means. Does "program" have the meaning conveyed in Ecology's permit application guidance (Publication 95-402, pages 56-57, Nov 2013…..see excerpted text below)? Under the proposed rule change and Publication 95-402, it would seem that only actual changes to the training **program** information specified in the permit would trigger a permit modification. Does Ecology agree? Per Publication 95-402, the dangerous waste training plan is not included in the permit. Instead, the dangerous waste training plan is maintained in the operating record. Therefore, a change to the dangerous waste training plan would not trigger a permit modification. Does Ecology agree? 95-402 Excerpt

Table 1. Generator Improvement Rule (GIR) Comments				
WAC Draft Rule pdf pg #	**WAC Citation**	**Title**	**Applicable Text**	**Comment**
				*The "Training Program" makes up **only part** of the "Training Plan." The entire "Training Plan" must be maintained in the operating record, but not all aspects of the "Training Plan" are required in your permit application. The following two paragraphs highlight the content of and differences between the "Training Program" **and** "Training Plan."* *The "Training Program" must provide descriptions for each position or job title involved with aspects of dangerous waste management and permit compliance. It must also provide brief outlines of required training courses. It must ensure the facility commits to providing sufficient training to ensure safe and compliance operations. The "training program" does not include information that is expected to change frequently, such as employee names and specific details of course curricula.* *The "Training Plan" includes descriptions for each position or job title involved with aspects of dangerous waste management or permit compliance, and it specifies the name of the actual employee(s) filling each of those position description or job title. The Training Plan should have a complete curriculum for each required training course, not just their brief outlines. It also includes ongoing training records required by WAC 173-303-330(3).*
784	173-303-830, Appendix I, B.5	Permit Modification Classes	-	PNNL Comment 71: Ecology proposes to revise the term "training plan" to "training program", consistent with usage of

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				these terms in WAC 173-303-330(1) and (2). We do not support this change, as it fails to make the necessary clarification of what is subject to the permit modification procedures. WAC 173-303-330(1) describes the "training program" in very broad terms, and some of the prescribed content of the program (e.g. "…must be directed by a person knowledgeable in dangerous waste management procedures…" is not consistent with the proposed permit modification requirement. The proposed change would apparently, in this case, require a permit modification if the identity of the training director were to change. Ecology should further bear in mind that the material submitted by permit applicants in accordance with WAC 173-303-806(4)(a)(xii) is only an "outline" of the training program and a "brief description" of training design. Ecology usually makes this "outline" and "brief description" enforceable by attaching it to the permit and then calling it the "training program", but this is not the "training program" described in WAC 173-303-330(1). The "outline" and "brief description" are the only documents typically affected by the modification requirement, not the entire "training program" described in WAC 173-303-330(1). Only the conditions of the permit (which may include attached material from the permittee's application) should be subject to the permit modification procedures of WAC 173-303-830(4) and Appendix I. Neither the "training program" nor the "training plan" are attached to

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				the permit and should thus not be called out in Appendix I as subject to modification control.

U.S. Department of Energy (DOE) Hanford Site Contractor Comments on Ecology's Preliminary Draft Rule Chapter 173-303 WAC Dangerous Waste Regulations

Attachment 1 – Photo for PNNL Comment 13. WAC 173-303-171(1)(e)(ix)(B) example of attempting to meet Ecology's proposed requirement for a one-liter container; the marking is larger than the container.

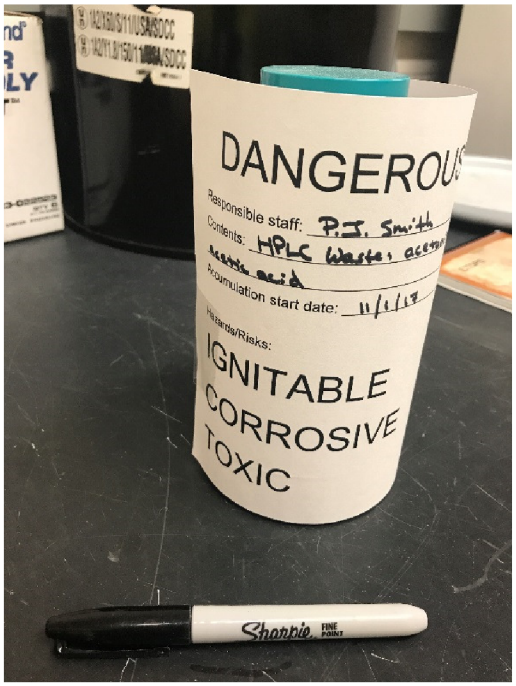

Table 2. E-Manifest Rule Comments				
WAC Draft Rule pdf pg #	**WAC Citation**	**Title**	**Applicable Text**	**Comment**
293	173-303-180(9)	Use of electronic manifest.	NA	**CHPRC Comment 23:** Will generators need to procure any special hardware or software in order to use the e-manifest system?
295	173-303-180(10)(c)	Restriction on use of electronic manifests.	"A generator may prepare an electronic manifest for the tracking of dangerous waste shipments involving any dangerous waste only if it is known at the time the manifest is originated that all waste handlers named on the manifest participate in the electronic manifest system."	**CHPRC Comment 24:** What will be the system for determining that all waste handlers named on the manifest participate in the e-manifest system?
296	173-303-180(10)(g)	Imposition of user fee.	"A generator who is a user of the electronic manifest may be assessed a user fee by EPA for the origination of each electronic manifest."	**CHPRC Comment 25:** The proposed wording states that a user fee "may" be assessed. Does ECY have any ideas on the potential user fee amounts? Also, what will be the method of payment for user fees?
296	173-303-180(10)(g)	Imposition of user fee.	"The current schedule of electronic manifest user fees will be published by EPA as an appendix to 40 CFR Part 262."	**CHPRC Comment 26:** If the schedule for e-manifest fees is not published in an appendix to 40 CFR Part 262 at the time that the e-manifest system is in place, how will user fees be determined?

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296	173-303-180(9)	Use of electronic manifest.	NA	**CHPRC Comment 27:** If a change is needed to an e-manifest once it has been signed and the waste shipped or received by the TSDF, how will changes be made?