



U.S. Department of Energy Hanford Site

July 30, 2020

20-ECD-0039

Ms. Alexandra K. Smith, Program Manager
Nuclear Waste Program
Washington State
Department of Ecology
3100 Port of Benton Blvd.
Richland, Washington 99354

Dear Ms. Smith:

SUBMITTAL OF COMMENTS ON THE LOW-ACTIVITY WASTE PRETREATMENT SYSTEM

The purpose of this letter is to submit comments on the draft Low-Activity Waste Pretreatment System (LAWPS) permit conditions that are currently out for public comment (June 22 through August 7, 2020). The permittees have identified two main areas of concern about some of the draft conditions.

First, the permittees cannot comply with certain draft conditions as they are currently worded. Suggested revisions to address these concerns are provided.

Second, there are a number of conditions in the draft permit that contain obligations or requirements that lack regulatory justification or support. Washington State Department of Ecology (Ecology) failed to cite any underlying regulatory authority for these conditions such that it appears Ecology is attempting to base these conditions on its omnibus authority. As set forth in WAC 173-303-815, each permit issued pursuant to the Washington Hazardous Waste Act must contain terms and conditions necessary to protect human health and the environment. The permittees recognize a permitting agency's "omnibus authority" to impose conditions that are more stringent than those specified by substantive regulation; however there are prerequisites before a permitting agency may appropriately exercise its omnibus authority. Since an agency's omnibus authority is not unlimited, courts use a three-prong test to determine whether such authority is appropriate for a given permit condition. The permitting agency must demonstrate that the permit condition(s) are necessary to protect human health or the environment; the permitting agency must demonstrate a nexus between the permit condition(s) and the dangerous waste activities being carried out at the facility; and that omnibus authority must be supported by the permitting agency's statement of facts and a cogent explanation in the permitting agency's administrative record that supports the draft permit.

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The permittees encourage Ecology to fulfill its affirmative obligation for each condition in the draft LAWPS permit to identify the appropriate nexus and to articulate the justification in its administrative record.

We did discuss these comments and concerns with your staff prior to submittal, specifically the conditions that could not be met as written and the conditions which go beyond the regulations.

If you have any questions, please contact me, or your staff may contact Chris Kemp, Director, Environmental Compliance Division, Office of River Protection, on (509) 376-0649.

Sincerely,

Glyn D. Trenchard, Assistant Manager
Technical and Regulatory Support
Office of River Protection

ECD:MEB

Attachment

cc w/attach:

T. G. Beam, WRPS
S. L. Dahl, Ecology
M. E. Jones, Ecology
Y. Lucatero, Ecology
D. McFadden, Ecology
C. P. Strand, WRPS
Administrative Record
BNI Correspondence
Environmental Portal
WRPS Correspondence

cc w/o attach:

J. R. Eschenberg, WRPS
J. T. Hamilton, WRPS

Attachment
20-ECD-0039

Draft Low Activity Waste Pretreatment System
(LAWPS) Permit Conditions

(18 Pages Including Cover Sheet)

REVIEW COMMENT RECORD (RCR)	Date: 7/27/20	
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Document Number(s)/Title(s): Draft Low Activity Waste Pretreatment System (LAWPS) Permit Conditions	Program/Project/Building Number: LAWPS OUG 1 Phase 1
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Item	Comment	Draft Condition	Recommended Disposition
1	Line 16 states “ <i>Construction of TSCR will begin in 2020 with waste management operations anticipated to begin in 2022.</i> ” TSCR is scheduled to begin commissioning activities in 2021.	Unit Description, Line 16.	Revise the permit language to reflect that waste management operations are anticipated to begin in 2021.
2	The language of draft condition III.1.B.1.a goes above and beyond the underlying regulation in WAC 173-303-810(14)(a). The remaining portions of III.1.B.1 are sufficient to ensure compliance with that requirement. The draft conditions III.1.B.11 and III.1.B.12 referenced in III.1.B.1.a are unnecessary because they simply provide the standard permit modification procedures set forth in WAC 173-303-830 and are redundant with the permit conditions in Condition I.C.3 of the Part I Standard Conditions.	III.1.B.1.a; III.1.B.11; III.1.B.12	Delete draft conditions III.1.B.1.a, III.1.B.11 and III.1.B.12. <i>[[Note: Conditions III.1.B.11 and III.1.B.12 are also referenced in multiple other locations of draft permit conditions.]]</i>
3	The draft condition states in part: <i>“The Permittees are not authorized to store dangerous and/or mixed waste identified in LAWPS OUG 1 until Compliance Schedule Items LAWPS-1 and LAWPS-2 are completed in full, as detailed below.</i> <ul style="list-style-type: none"> <i>Permittees will submit a complete operating permit modification request for the LAWPS OUG, which will also include related AP Farm operational requirements to support the LAWPS operations.”</i> <p>To the extent that the draft permit condition requires the permittees to submit a complete operating permit modification request for LAWPS which will include “related” AP Farm operational requirements, the permittees cannot comply. The permit condition to submit a complete permit modification for the 241-AP Farm is inconsistent with the LAWPS permitting plan signed by DOE and Ecology which stated “This plan does not address RCRA permitting activities related to the AP Tank Farm within the context of the Double Shell Tank System (DST) Operating Unit Group. Those activities are separate from what is described herein.”</p> <p>In addition TSCR only has start and stop control for the 241-AP-107 pump, which was described in the application material in Addendum C, Process Information, and RPP-RPT-61220, <i>Tank Side Cesium Removal (TSCR) Control Logic Narrative</i>. Ecology has already been provided all</p>	III.1.B.6.a	Either delete the permit condition or modify it to be very specific about what information Ecology is requesting to be provided that was not already included in the permit application.

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	<p>information on AP Farm operational requirements related to TSCR. Permittees submitted a complete operating permit modification request for the LAWPS OUG. Ecology declared the permit modification request complete and the operations that TSCR controls were included in that request. The permittees are therefore unclear as to the additional information that is being requested and cannot comply with the conditions based on the existing draft language. Ecology previously indicated it would not permit AP tank farm as a standalone final status unit to support DFLAW. Ecology's path forward is to place the relevant operating information in the LAWPS permit, which the permittees have done. Lastly the permittees cannot comply with a condition that requires submission or inclusion of "related" information which is undefined.</p>		
4	<p>The draft condition states in part: <i>"The Permittees are not authorized to store dangerous and/or mixed waste identified in LAWPS OUG 1 until Compliance Schedule Items LAWPS-1 and LAWPS-2 are completed in full, as detailed below.</i></p> <ul style="list-style-type: none"> <i>Tri-Party Agreement Milestones will be in place for the long term treatment and disposal pathway of the IXC's and waste media."</i> <p>The agreement reached between Ecology and DOE to negotiate appropriate TPA milestones addressing the long term treatment and disposal of IXC media, as documented in the permitting plan signed by both Parties in March 2019, was not intended to be a pre-operational requirement. DOE and Ecology agreed to the following strategy to address this issue:</p> <p><i>"Interim storage of spent IX columns containing cesium at a permitted location will be necessary. In support of determining a final disposition pathway for the cesium, DOE will continue to evaluate potential options available. To ensure waste streams have a disposal pathway, DOE and Ecology have agreed to engage in near term workshops to identify what is known about columns treatment and disposal. From this effort it is anticipated that a project plan TPA milestone would be developed for the disposition of the spent IX columns. This evaluation will consider (1) current laws and regulations that affect disposal pathways, (2) potential changes to laws and regulations, (3) existing and reasonably possible options for the disposal of nuclear waste, (4) comparison of the baseline disposal scenario (i.e. vitrification at WTP) and alternative disposal pathways including direct disposal at a deep geological</i></p>	III.1.B.6.a	Delete the portion of the draft permit condition related to Compliance Schedule Item LAWPS-1 and the establishment of new/updated TPA milestones as a pre-requisite for TSCR operations.

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	<p><i>repository, (5) comparison of potential disposal site acceptance criteria for all reasonably possible disposal pathways, (6) capability to vitrify the cesium media at WTP, and (7) comparison of the baseline interim storage scenario with alternative interim storage options including shipment to a permitted treatment and storage facility off the Hanford Site.</i></p> <p>Negotiation of TPA milestones follows a specific, agreed upon required process that takes some time to complete. TSCR operations is scheduled to begin in approximately 12 months. Inclusion of this requirement is unnecessary. Compliance Schedule item LAWPS-1 in draft Appendix 1.0 provides sufficient opportunity for Ecology to ensure DOE engages in the necessary discussions and can be used to establish an appropriate timeline for doing so. DOE recognizes that Ecology wants a “hook” in the permit to have TPA milestones negotiated prior to TSCR operations. However, an appropriate “hook” was already agreed to in the permitting plan, and we are concerned that the details of the milestones may not be able to be worked out prior to scheduled start of TSCR operations since resolution of issues is taking longer during the current work situation.</p>		
5	<p>The draft condition references Addendum C, Section C.3 for the authorized container storage areas. Section C.3 described waste transfer lines. The correct reference for description of proposed container storage areas is Section C.5.</p>	III.1.B.6.c	Revise draft condition to reference the correct section of Addendum C for Container storage areas (C.5).
6	<p>The draft permit condition states “<i>A modified Closure Plan must be submitted as a permit modification request with a detailed description of the methods to be used during partial closures and final closure, including, but not limited to, methods for removing, transporting, treating, storing, or disposing of all dangerous wastes, and identification of the type(s) of the off-site dangerous waste management units to be used. WAC 173-303-610(3)(a)(iv).</i>”</p> <p>The permittees cannot comply with a condition to submit materials absent a specific date by which to submit.</p>	III.1.B.8 A	Modify the condition to state “One hundred and eighty days prior to commencing final closure of the Operating Unit Group, the permittees will submit a final closure plan...” to make this condition consistent with the WTP permit. Reference draft condition III.I.K.2.
7	<p>The draft permit condition states “<i>The Permittees must meet Land Disposal Restrictions (LDR) standards for disposal of final waste forms for waste codes based on the Double-Shell Tank Part A Permit Application, dated December 14, 2009. All waste forms subject to LDR standards must be demonstrated to meet all applicable treatment standards and requirements (WAC 173-303-140/40 CFR Part 268) prior</i></p>	III.1.B.13.a	Modify the draft permit condition to delete reference to the DST Part A form as the basis for assigning LDRs. The condition as currently written, with reference to the Part A included, can put the permittees in conflict with meeting the LDR regulations.

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	<p><i>to land disposal. For waste that has treatment standards that are not concentration based, the generator and/or treatment facility must demonstrate that the waste meets the applicable treatment standards using process knowledge and/or by waste analysis, as required by this Permit and the applicable sections of WAC 173-303-140/40 CFR 268.”</i></p> <p>Characteristic waste codes identified on any given Part A do not necessarily reflect the actual nature of the waste being managed within a dangerous waste management unit. Rather, waste codes on a Part A simply establish the types of waste the facility is designed and allowed (either through a final status permit or interim status) to receive and manage. Reference Ecology publication ECY 030-31, <i>Washington State Dangerous Waste Permit Application: Part A Form and Instruction</i>. Section XIV: Description of Dangerous waste requires an applicant to “Describe <u>all</u> the dangerous wastes that will be treated, stored, or disposed at the facility. In addition, for each dangerous waste, provide the processes that will be used to treat, store, or dispose of the waste and the estimated annual quantity of the waste.” Section XIVA of the instructions further stipulates four-digit numbers from WAC 173-303-081, -082, -090, and -100 are to be entered “for each dangerous waste that you <u>will</u> manage.” It is neither explicit nor implied in the Part A Form instructions that these waste codes must actually represent the types and characteristics of waste within a facility at any given time. Thus, assigning LDRs based on Part A Form waste codes is incorrect. LDRs are assigned based on knowledge of the waste through either sampling and analysis, process knowledge, or a combination of both.</p> <p>Lastly, dangerous waste numbers were added to the DTS Part A as a protective filing in the 1989 timeframe. An example is number F039, multi-source leachate. The Part A carries this number, but the DST System has never received multi-source leachate.</p>		
8	<p>The draft permit condition states; “<i>Ecology has determined that the HLVT treatment standard is attached to this IX media waste in addition to the applicable 40 CFR 268.40 treatment standards for the dangerous waste codes other than D002 and D004-011 identified in the Double-Shell Tank Part A.</i>”</p> <p>Assigning treatment standards based on Part A Form waste codes is incorrect (reference Permittee comment #7 above). LDRs are assigned based on knowledge of the waste through either sampling and analysis, process knowledge, or a combination of both. The Permittees are not</p>	III.1.B.13.a.i	<p>Modify the draft permit condition to delete reference to the DST Part A form as the basis for assigning LDR treatment standards.</p>

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	contesting the applicability of the HLVIIT. LDRs for the balance of characteristic dangerous waste numbers are established based on knowledge of the waste (see item number 7 above).		
9	<p>The draft permit condition states; <i>“The unit-specific portion of the Hanford Facility Operating Record will include the documentation specified in Permit Attachment 6, Permit Condition III.I, (applicable to the LAWPS OUG), and other documentation specified in Operating Unit Group 1. Permit Attachment 6 provides a list of required records, and the methods of submittal for the facility and each unit group. Records will also include documentation related to the Operation of DST AP Farm as it relates to LAWPS OUG.”</i></p> <p>Other documentation specified in Operating Unit Group 1. Permit Attachment 6 provides a list of required records, and the methods of submittal for the facility and each unit group that the Permittees feel are adequate and complete for the LAWPS OUG. <i>“Records will also include documentation related to the Operation of DST AP Farm as it relates to LAWPS OUG.”</i> is so unduly broad and vague, since for example it could be interpreted to include most any record for DSTs could also be required to be included in the LAWPS operating record. As described in the LAWPS application the TSCR unit can only start and shut down transfers from 241-AP-107 to TSCR.</p>	III.1.D.1	Modify the draft permit condition to state the following; <i>“Records related to operations of 241-AP 107 as it relates to LAWPS operations should be included in the LAWPS operating record.”</i>
10	<p>The draft permit condition states <i>“When adverse conditions result in access restrictions to the active portions of LAWPS (Process Enclosure, IXC Storage Pad, and Staging Area), inspections will be performed immediately upon return to normal conditions. Any delayed or missed inspection will be recorded and entered into the LAWPS OUG 1 Operating Record.”</i></p> <p>The draft condition should acknowledge ALARA principles as well as weather conditions.</p>	III.1.H.2	Modify the draft condition to acknowledge ALARA principles as well as weather conditions. In addition, allow weekly inspections of the IXC Staging Area and IXC Storage Area from the fence line. Any required remedies which prevents hazards to the public health and environment will be completed immediately upon return to normal conditions. <i>“Immediately”</i> for the purposes of this permit condition is proposed to mean within 24-hours.
11	<p>The draft permit conditions states; <i>“The Permittees will ensure that the LAWPS systems are operated and maintained, at all times, by persons who are trained and qualified to perform these and any other duties that may reasonably be expected to properly operate the LAWPS systems.”</i></p> <p>The sentence <i>“any other duties that may reasonably be expected to</i></p>	III.1.I.2	Modify the condition to read <i>“The permittees will ensure that the LAWPS systems are operated and maintained by persons who are trained and qualified to perform these duties.”</i> It meets the same regulatory requirement without the broad and unclear language.

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	<p><i>properly operate the LAWPS systems</i>” is written so broadly that the permittees do not know how to comply with the condition.</p>		
12	<p>The draft condition states in part <i>“The Permittees will formally document, with a NCR or CDR, as applicable, incorporation of minor nonconformance or construction deficiency from the approved designs, plans, and specifications into the construction of non-critical systems subject to this Permit.”</i></p> <p>The permittees are unable to comply with this condition as currently written. The term or concept "critical systems" does not appear in WAC 173-303. The term has been created for the Hanford Facility Dangerous Waste Permit. The LAWPS Permit contains no information for determining what constitutes a "critical system." Federal solid/hazardous waste statutes or regulations do not set forth standards with respect to what constitutes a "critical system." In the absence of any such definition, the Permittee has no means of determining whether its actions are permitted or prohibited by the permit condition.</p> <p>Non-critical systems are not defined in the Hanford Site RCRA Permit General Conditions, nor is that term defined in the draft condition. The permittees cannot comply with a condition that includes terms or phrases that lack definitions.</p>	III.1.J.4	<p>Either delete the condition because there is no basis in federal regulation or define the term “non-critical system” in the draft condition or modify the condition to only address “critical systems”, which is defined in the Hanford Site RCRA Permit.</p>
13	<p>This permit condition is redundant with Condition II.R in the Part II General Facility Conditions. It will cause unnecessary confusion for facility staff trying to implement the requirement.</p>	III.1.J.6.a	<p>Delete this condition</p>
14	<p>The draft condition states in part; <i>“Permittees will provide Ecology operating and monitoring data, with regular weekly reports and quarterly summaries.”</i></p> <p>There is no regulatory requirement to provide weekly reports, and therefore this is an onerous condition without basis in regulation. It would take longer than a week to clear and issue a report, let alone write one. Weekly reports or quarterly summaries are not defined. Other reporting mechanisms already currently exist to report information to Ecology so it is unclear why special reporting requirements are being imposed on TSCR. Permit Attachment 6 provides a list of required records, and the methods of submittal for the facility and each unit group that the Permittees feel are adequate and complete for the LAWPS OUG.</p>	III.1.J.8	<p>Delete this condition.</p>
15	<p>The draft condition states the permittees will maintain access for site visits for Ecology to the TSCR Control Enclosure.</p>	III.1.J.8	<p>Delete this condition.</p>

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	<p>During operations Ecology may exercise its inspection authority to determine compliance with the permit. It is unclear what maintaining access for site visits means in terms of Ecology's role. The permittees cannot comply with a permit condition that sets forth vague or ambiguous requirements for maintaining access for site visits and that purport to expand without justification the reason for which Ecology's inspection authority and permittees existing obligations are insufficient. The TSCR unit will be processing mixed waste and it is unclear what the visits to the control enclosure will be if not an inspection.</p>		
16	<p><i>The permittees will provide Ecology access to the LAWPS site during construction to support Ecology's construction oversight requirements.</i></p> <p>Conditions out at the site can change rapidly due to evolving nature of the work being done and the permittees have a responsibility to keep anyone on the work site safe and make sure the rules are understood and followed.</p>	III.1.J.9	<p>Modify the condition to read "<i>The permittees will provide Ecology escorted access to the LAWPS site during construction to support Ecology's construction oversight requirements.</i>"</p>
17	<p>The draft condition cites permit conditions II.D, III.1.C.2.e and III.1.C.2.f as references for permit modification requirements related to revised closure plans. Those permit conditions either do not exist or do not appear to be related to closure plan revisions.</p>	III.1.K.2	<p>Revise the draft condition to reference the correct permit conditions.</p>
18	<p>The draft condition states in part; "<i>In addition to the items in LAWPS OUG 1, "Sampling and Analysis Plan," the documentation must include the following and other information Ecology may request.</i>"</p> <p>This leads the reader to believe a Sampling and Analysis Plan for closure exists. This is not the case. The permittees cannot comply with a condition that refers to a plan that does not exist. In addition, the Permittees cannot include "<i>and other information Ecology may request.</i>" This is an undefined requirement and must be revised so that permittees can comply with the obligation the permit condition purports to impose.</p>	III.1.K.4	<p>Modify the draft condition to state the following; "<i>In addition, a LAWPS OUG 1, "Sampling and Analysis Plan," will be developed and must include the following information.</i>"</p>
19	<p>The condition states in part; "<i>Copy of all contamination survey results.</i>"</p> <p>The Permittees assume "contamination refers" to radionuclides, which are not regulated by RCRA.</p>	III.1.K.4.h	<p>Delete this condition; there is no regulatory basis for providing radiological information to Ecology under the dangerous waste regulations.</p>
20	<p>The draft conditions jump from III.1.L to III.1.O. Conditions III.1.M and III.1.N appear to be missing.</p>	III.1.M and III.1.N	<p>Provide missing permit conditions in III.1.M and III.1.N or renumber permit conditions sequence to avoid gaps.</p>

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21	The name of the type of IX exchange media is incorrectly identified as “crystoline silicotitane”. It should be “crystalline silicotitanate” or “CST”.	III.1.O.1.a	Revise the permit condition to correctly identify the IX media type. This correction also needs to be made to the footnote for Table III.1.O.
22	The cited underlying regulation for this permit condition of “WAC 173-303-41 630(7)(c)(ii)” is inaccurate. This draft condition contains a typographical error, WAC-173-303-630(7) does not include any labeling requirements.	III.1.O.2.e	Revise the permit condition to identify the correct underlying regulatory requirement.
23	The draft condition states; “The Permittees will submit to Ecology a copy of the final TSCR Factory Acceptance Testing (FAT) report demonstrating removal of IXC media from an ion exchange column. The report shall document proof of concept results showing that IX media can be physically removed from a column prior to LAWPS Unit Group operational.” The condition appears to be missing “becoming” operational.	III.1.O.2.g	Insert “becoming” after Group and before operational.
24	The draft condition states; “ <i>Submit to Ecology a test plan, and associated schedule that evaluates the performance of the IX waste media over time as it relates to the ability for it to be extracted. This test plan will also evaluate if the physical form of the media will change over time and can still be extracted after 30 plus years in the column. Perform testing related to test plan and provide results of testing in reports.</i> ” This condition is unnecessary as DOE has agreed to develop TPA Milestones that address disposition of the spent IX media.	III.1.O.2.h	Delete the draft condition and sub-conditions in their entirety. See comment # 4 above.
25	The draft condition states “ <i>Replacement of any component of the tank system, e.g., ion exchange columns, are subject to the Permit Conditions as detailed in III.1.P.1, specifically including Permit Condition III.1.P.1.h.</i> ” There is no basis in regulation for this permit condition, which will not allow for processing in a manner to meet LAW facility feed rate requirements which could adversely impact the LAW melters. Replacement in kind of consumable equipment is not subject to IQRPE installation certification as it does not constitute a modification to a tank system. Reference WAC 173-303-640(3(a), <i>Design and installation of new tank system components</i> . The system will undergo a leak check prior to resumption of processing after IXC change-out.	III.1.P.1.i	Modify condition to be consistent with the regulations by removing reference to Condition III.1.P.1.h. (installation certification) and add a leak check so the condition would read “Replacement of any component of the tank system are subject to a leak check”.

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26	<p>Numerous draft conditions and sub-conditions in Section III.1.P.2 “Tank System Operating Requirements” include underlying regulatory citations to required Part B application content in WAC 173-303-806(4)(c) that are inappropriate. Ecology has determined the Part B application to be complete. These requirements are no longer applicable for future operating requirements. The regulatory bases are sufficiently documented by the various citations to WAC 173-303-640 requirements.</p>	III.1.P.2 (General)	Delete all references to various subsections of WAC 173-303-806(4)(c) as underlying regulatory bases for conditions in this section of the draft permit.
27	<p>Condition reads: <i>The Permittees will submit to Ecology, prior to initial receipt of dangerous and/or mixed waste at the LAWPS, descriptions of operational procedures demonstrating appropriate controls and practices are in place to ensure the LAWPS DWMUs will be operated in a safe and reliable manner that will not result in damage to regulated tank systems.</i></p> <p>This condition is already addressed by compliance schedule item LAWPS-2 and is unnecessary.</p>	III.1.P.2.1	Delete this draft permit condition.
28	<p>The draft condition states “<i>If liquids (e.g., dangerous and/or mixed waste leaks and spills, precipitation, fire water liquids from damaged or broken pipes) cannot be removed from the secondary containment system within twenty-four (24) hours, Ecology will be verbally notified within twenty-four (24) hours of discovery. The notification will provide the information in A, B, and C listed below. The Permittees will provide Ecology with a written demonstration within seven (7) business days, identifying at a minimum [WAC 173-303-37 640(4)(c)(iv), WAC 173-303-640(7)(b)(ii), WAC 173-303-806(4)(c)(vii)]:</i></p> <p><i>A. Reasons for delayed removal;</i></p> <p><i>B. Measures implemented to ensure continued protection of human health and the environment;</i></p> <p><i>C. Current actions being taken to remove liquids from secondary containment.”</i></p> <p>This condition is not based in regulation and reflects ongoing Revision 9 Process Information CAP discussions that have not been agreed to. Although Ecology has directed their staff to include anticipated Hanford</p>	III.1.P.2.m	Delete this condition or repeat what the regulations require verbatim as the condition.

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	<p>Revision 9 information in Revision 8C permit modifications if they feel there is a basis in the regulations, the permittees do not believe the permit condition matches what the cited regulatory citations state. [WAC 173-303-37 640(4)(c)(iv), WAC 173-303-640(7)(b)(ii), WAC 173-303-806(4)(c)(vii)]. The permittees would rather work out this discrepancy issue in the ongoing Revision 9 discussions.</p>		
29	<p>This condition states; “<i>Description of procedures for investigation and repair of tank systems [WAC 173-303-33 320, WAC 173-303-640(6), WAC 173-303-640(7)(e) and (f), WAC 173-303-806(4)(a)(v), 34 WAC 173-303-806(4)(c)(vii)];</i>”</p> <p>Procedures for repair would depend on the nature of the required corrective action and cannot be predicted. In addition, this condition is already addressed by compliance schedule item LAWPS-2 and is unnecessary and duplicative.</p>	III.1.P.2.o.v	Delete the condition as unnecessary.
30	<p>The draft condition states; “<i>A description of the tracking system used to track dangerous and/or mixed waste throughout the TSCR Unit tank system, pursuant to WAC 173-303-380;</i>”</p> <p>WAC 173-303-380 does not require a tracking system. WAC 173-303-380(2) already establishes “instructions for recording the portions of the operating record which are related to describing the types, quantities, and management of dangerous wastes at the facility. This information must be recorded, as it becomes available, and maintained in the operating record until closure of the facility.” The permittees do not know how to comply with this condition, with respect to TSCR operations. It is not known what is meant by a tracking system. TSCR will record throughput during processing. There is not something specific which gets “tracked” like you do for a waste drum or waste container.</p>	III.1.P.2.o.vi	Either clarify what is meant by a tracking system in the context of how TSCR operates as described in Addendum C, or delete this condition.
31	<p>The draft condition states; “<i>Permit Table III.1.P.A will be completed for TSCR Unit tank system process and leak detection system monitors and instruments (to include but not limited to: instruments and monitors measuring and/or controlling flow, pressure, temperature, density, pH, level, humidity, and emission).</i>”</p>	III.1.P.2.o.vii	Either delete the draft condition or modify the condition to say “The permittees will complete the information in Permit Table III.1.P.A prior to operations”.

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	<p>The permittees cannot comply with this condition, because TSCR does not utilize instruments for measurement or monitoring of density, pH, level, humidity, and emissions. TSCR will monitor for flow-rate, temperature, and pressure. Permit Table III.1.P.A will be populated with relevant monitoring data as part of a modification request to add operational information for the LAWPS OUG. Much of this information about the instruments is already in Addendum I.</p>		
32	<p>The draft condition states; <i>“Supporting documentation for operating trips and expected operating range as specified in Permit Table III.1.P.A for the TSCR Unit tank systems are to include but not be limited to the following: WA7890008967 Low-Activity Waste Pretreatment System Conditions</i></p> <p><i>A. Procurement specifications;</i></p> <p><i>B. Location used;</i></p> <p><i>C. Range, precision, and accuracy;</i></p> <p><i>D. Detailed descriptions of calibration/functionality test procedures (e.g., method number [ASTM] or provide a copy of the manufacturer’s recommended calibration procedures.</i></p> <p><i>E. Calibration/functionality test, inspection, and routine maintenance schedules and checklists, including justification for calibration, inspection, and maintenance frequencies, criteria for identifying instruments found to be significantly out of calibration, and corrective action to be taken for instruments found to be significantly out of calibration (e.g., increasing frequency of calibration, instrument replacement, etc.)”</i></p> <p>The permittees cannot comply with the condition as drafted because it is vague and ambiguous. For example permittees are unsure as to the meaning of “operating trips”. Then the condition appears to switch and request information on range, then lists location use, range, precision, and accuracy of what? It could be assumed these are references to pH, temperature and humidity in the condition above but it is not clear. Items D and E remain under dispute in the CAP process. In addition “Significantly out of calibration” is not defined which is vague and ambiguous. .</p>	III.1.P.2.o.viii	Delete the condition if it applies to III.1.P.2.o.vii. If it does not, rewrite the draft condition so it is clear what is being requested. Delete items D and E because they are under dispute in the Revision 9 CAP process and this is a Revision 8c unit.
33	The draft condition states; <i>“The Permittees will install a sample port on</i>	III.1.P.3.a	Modify the condition to replace “TSCR skid” with “TSCR

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	<p><i>the Tank AP-108 drop-leg assembly in order to sample and analyze the air return from the TSCR skid to the AP Tank Farm.”</i></p> <p>Air is returned from the TSCR Process Enclosure to the 241-AP-108 tank.</p>		Process Enclosure”. And, state the air return is to tank 241-AP-108.
34	<p>The draft condition states; <i>“The Permittees will sample this air return to determine the levels of hazardous constituents in the air stream.”</i></p> <p>“Hazardous constituents” are not defined in the regulations, Hanford Site RCRA Permit, or the draft condition. Furthermore, the LAWPS Permitting Plan, Section 5.0 documents that only organic emissions will be monitored for.</p>	III.1.P.3.a.i	Modify the condition to include a definition of what “hazardous constituents” are in the context of the specific dangerous waste regulation this refers to and specify the condition only applies to organic compounds.
35	<p>The draft condition states; <i>“The samples will be analyzed for flowrate, total organics and mercury and a report will be submitted to Ecology.”</i></p> <p>In all previous discussions regarding TSCR process emissions, only organic constituents were the topic of concern and conversation with Ecology. The LAWPS Permitting Plan, Section 5.0 documents that only organic emissions will be monitored for.</p> <p>Flow-rate and mercury monitoring were never mentioned during discussions and it is not possible to obtain a flow-rate from the sample port. The Permittees cannot comply with the draft condition as written.</p>	III.1.P.3.a.iii	Modify condition to remove flow-rate and mercury.
36	<p>The draft condition Table establishes Process and Leak Detection System Instruments and Parameters.</p> <p>There is no vessel overflow function within TSCR tank system components. The permittees suggest “Reserving” Permit Table III.1.P.A, which will be populated with relevant monitoring data as part of a modification request to add operational information for the LAWPS OUG.</p>	Table III.1.P.A Vessel Overflow	Modify condition to remove “Vessel Overflow” from table, or just reword to “Reserve” the full table as TBD and eliminate headings to avoid confusion.
37	<p>The draft condition states; <i>“When a HIHTL connection is broken and remade, leak testing will be required and reviewed by an Independent Qualified Installation Inspector or Independent Qualified Registered Professional Engineer.”</i></p>	III.1.Q.1.c	Modify condition to remove review by an IQRPE because it is beyond the scope of what the WAC regulations require. Modify the condition to be consistent with the regulations, which should read “When a HIHTL connection

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	<p>Replacement of in kind consumable equipment is not subject to IQRPE installation certification as it does not constitute a modification to a tank system. The system will undergo a leak check prior to resumption of processing after HIHTL change-out. Reference WAC 173-303-640(3(a), <i>Design and installation of new tank system components.</i></p>		<p>is broken and remade, leak testing will be required to verify the new hose is properly installed.”</p>
38	<p>The draft condition states; <i>“If the TSCR unit exceeds the approximate 5-year duration for Phase 1, the Permittees will replace HIHTL waste transfer lines with hard-walled pipe transfer lines.”</i></p> <p>HIHTLs will be used for Phase 1 of TSCR as documented in the LAWPS Permitting Plan. The “approximate 5-year duration” is not defined.</p>	III.1.Q.1.d	<p>Modify condition to delete “approximate 5-year duration”</p>
39	<p><i>The draft condition states; “The following information from the Annual HIHTL status report will be kept in the Operating Record for the LAWPS OUG.</i></p> <p><i>A. HIHTL assembly serial number.</i></p> <p><i>B. Location – Originating point (from) and destination point (to) of the HIHTL.</i></p> <p><i>C. Hose assembly drawing number.</i></p> <p><i>D. Date of manufacture of the HIHTL.</i></p> <p><i>E. HIHTL in-service date.</i></p> <p><i>F. Service life expiration date – For HIHTLs that have not been exposed to mixed waste, the expiration date is 7 years from the date of manufacture (shelf life). For HIHTLs that have been put in service, the expiration date is 3 years from the initial date of mixed waste use (service life).</i></p> <p><i>G. HIHTL length.</i></p> <p><i>H. Shelf life expired HIHTLs that have not been used – Shelf life expired hoses that have not been used and are expired will be identified to prevent mixed waste use.</i></p> <p><i>I. Disposal package identification number (PIN) – The PIN for the container that the HIHTL was placed in for shipping.”</i></p> <p>These protocols were derived from the HIHTL Management Plan and</p>	III.1.Q.1.g	<p>Delete this condition.</p>

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	<p>were intended to track the more than 150 HIHTLs both in service and being removed from service as a waste management tool. TSCR uses five hoses in fixed locations, and there is no value or added protection to human health and the environment by implementing this unnecessary system. Much of what is required by the draft condition (length, drawing number, location, etc.) has already been provided in the application.</p>		
40	<p>The draft condition states in part; <i>“Based on the Permittees’ design and calculations, the TSCR HIHTL leak detection systems are capable of detecting a leak equal to or less than 5 gph within 24 hours. When these lines are transitioned to hard walled lines the Permittees will follow permit condition III.1.Q.2.g. [WAC 173-303-13 640(4)(c)(iii)]”</i></p> <p>It is believed the III.1.Q.2.g reference in the draft condition is incorrect (<i>“The Permittees will notify and report releases to the environment to Ecology in 23 accordance with WAC 173-303-640(7)(d).”</i>). Is the referenced condition supposed to be III.1.Q.2.f?</p> <p>If so, it is critical to note the interferences with the HIHTL routes will be the same for hard walled pipe (i.e., crane crossings and existing infrastructure). It will not be possible to continuously slope hard wall pipe following LAWPS Phase 1.</p>	III.1.Q.1.j.A	Confirm referenced permit condition and correct if necessary.
41	<p>The draft condition states in part; <i>“Until such time as the secondary containment for the TSCR HIHTL transfer system meets the requirements of -640(4), a functional leak test or other integrity assessment, as approved by Ecology, must be conducted on the system annually. 24 [WAC 173-303-640(4) (I) (iii)]”</i></p> <p>The permittees are unclear as to what system the condition refers to. However, if the draft permit condition applies to the HIHTL encasement, the permittees cannot comply with the condition since there is no way to test the outer hose following installation. Nor is there regulatory basis for having to leak test secondary containment. The regulation cited is incorrect and should be WAC 173-303-640(4)(i)(iii). This rule only applies to nonenterable underground tanks seeking a waiver from secondary containment. The HIHTLs have secondary containment and leak detection and are compliant with WAC 173-303-640(4). No waiver to secondary containment and leak detection is being pursued.</p>	III.1.Q.1.j.C	Delete this condition since it goes beyond the scope of what the regulations require.

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	<p>The permittees are unable to comply with this permit condition. Furthermore, since the HIHTLs will be in fluid service almost continuously, an annual leak test adds no value.</p>		
42	<p>The draft condition states; <i>“Since TSCR HIHTLs are installed with low points which do not readily drain, the TSCR HIHTL transfer system shall employ an integrated system of administrative and engineered leak detection systems. The leak detection system shall include in-pit leak detection, and inspection of radiological conditions along HIHTL transfer routes.”</i></p> <p>The permittees cannot comply with this draft condition because in part it does not specify a frequency for the radiological inspections. In addition, there is no definition of the term <i>“integrated system of administrative and engineered leak detection systems”</i>. The HIHTLs are supported by an engineered leak detection system and are compliant with WAC 173-303-640(4). The only available leak detection systems have been described in the permit application and no other options are available. Permittees have already committed to perform the inspections referenced herein as part of the Inspection Schedule.</p>	III.1.Q.1.k	Recommend adding a once per column change-out frequency.
43	<p>The draft condition states in part; <i>“The Permittees will install and test all process and leak detection system monitoring/instrumentation, as specified in Permit Tables III.1.P.A, in accordance with LAWPS OUG 1 Permit Appendices 2.2 and 2.6. 6.”</i></p> <p>The permittees cannot comply with this condition. Both of the pipe-in-pipe transfer lines are continuously sloped from the 241-AP Farm to WTP and rely on low-point leak detection at EMF. Tank farms does not install and test WTP leak detectors.</p> <p>It is unclear why this information is being requested in the LAWPS Operating Unit Group permit when DOE and BNI are currently working with Ecology to include this information in the EMF permit in Chapter WTP Chapter 4G under 24590-BOF-PCN-ENV-20-001, which is the operating unit group responsible for the EMF low point drain.</p>	III.1.Q.2.f	Modify condition to acknowledge the requirements do not apply to the EMF low-point leak detector.
44	<p>The draft condition states in part; <i>“The leak detection system for the TSCR waste transfer lines must be designed and operated so that it will detect a leak of 0.1 gph within 24 hours, or at the earliest practicable time if the Permittee can demonstrate to Ecology that existing leak detection technologies or site conditions will not allow detection of a</i></p>	III.1.Q.2.f.A	Delete the “A” subcondition.

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	<p><i>release of 0.1 gph within 24 hours. The demonstration shall quantify that the sensitivity of the waste transfer line leak detection systems is capable of detecting a leak equal to or less than XX gph within 24 hours. [WAC 173-303-640(4)(c)(iii)]”</i></p> <p>Subcondition “A” is problematic for a number of reasons. 1) Ecology has repeatedly stated that the 0.1 gph leak rate only applies to design internal to the WTP facility. When that rate was negotiated for WTP Ecology stated it would not apply to other facilities. No other operating unit group on site has a 0.1 gph leak detection rate, except WTP. This permit condition is inconsistent with the design in the application that Ecology has declared complete.</p> <p>In addition, the permittees have already provided a leak rate calculation to Ecology showing a leak of 0.1 gph cannot be detected within 24-hours (Reference 8/22/18 LAWPS Meeting Minutes). Both the AP Farm to EMF and EMF back to AP Farm transfer lines have a 0.5 gph calculated leak rate. It is not possible to perform a demonstration of the leak rate because AP Farm has no means to introduce water to test a leak rate scenario. WTP will flush lines uphill back to AP Farm. The Permittees are unable to comply with this portion of the condition as written,</p>		
45	<p><i>The condition states in part; “The leak detection system for the TSCR waste transfer lines must be designed and operated so that it will detect a leak of 0.1 gph within 24 hours, or at the earliest practicable time if the Permittee can demonstrate to Ecology that existing leak detection technologies or site conditions will not allow detection of a release of 0.1 gph within 24 hours. The demonstration shall quantify that the sensitivity of the waste transfer line leak detection systems is capable of detecting a leak equal to or less than XX gph within 24 hours. [WAC 173-303-640(4)(c)(iii)]</i></p> <p><i>B. The secondary containment for the TSCR waste transfer lines must be sloped or operated to drain and remove liquids resulting from leaks. Leaked waste must be removed from the secondary containment system within 24 hours, or in as timely a manner as is possible to prevent harm to human health and the environment, if the Permittee can demonstrate to Ecology that removal of the released waste or accumulated precipitation cannot be accomplished within 24 hours. [WAC 173-303-640(4)(c)(iv)]”</i></p>	III.1.Q.2.f.A and B	Remove the word TSCR from both sections when referring to the transfer lines. Recommend adding a permit condition to transfer these lines to another OUG prior to start-up.

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	<p>Both subsections A. and B. use the term “TSCR waste transfer lines”. TSCR will have no operational control of these transfer lines and they are not associated with TSCR beyond design and installation within the LAWPS OUG. Per agreement with Ecology, these transfer lines will be transferred to another OUG (either DSTs or WTP) prior to operations.</p>		