

Department of Ecology Comments on Environmental Assessment of the Test Bed Initiative Demonstration, DOE/EA-2086

General Comments

Public participation

Ecology Letters 19-NWP-064 and 21-NWP-140 addressed the need for public involvement in this Environmental Assessment (EA). Specifically, the U.S. Department of Energy (DOE) rules require DOE to “make its NEPA documents available to other Federal agencies, states, local governments, American Indian tribes, interested groups, and the general public, in accordance with 40 CFR 1506.6, except as provided in § 1021.340 of this part.” 10 C.F.R. § 1021.301(a).

NEPA regulations require agencies to “[s]olicit appropriate information from the public.” 40 C.F.R. § 1506.6(d). “The Ninth Circuit has interpreted NEPA’s regulations to mean that the public must be given an opportunity to comment on draft EAs and draft EISs.” *Ocean Mammal Institute v. Gates*, 546 F.Supp.2d 960, 972 (2008) (citing *Citizens for Better Forestry v. U.S. Dept. of Agriculture*, 341 F.3d 961, 970 (9th Cir.2003)).

Ecology again encourages DOE to publish a Federal Register notice to announce the availability of a draft EA with a 30-day public comment period and public meeting, after incorporating changes to the draft EA based on comments received during the 14-day agency review period. Ecology also encourages DOE to utilize the Hanford Public Involvement Plan for Phases 2 and 3 of DOE’s Test Bed Initiative (TBI).

Inaccurate and inconsistent use of the terms LAW and MLLW

Section 1.1 (Pg. 1-1), refers to pretreated tank waste as “low-activity waste (LAW) and high-level radioactive waste (HLW).” See also pages 1-3, 1-4, 1-7. The second sentence of Section 1.2.1 (Pg. 1-3) acknowledges that waste subject to a Waste Incidental to Reprocessing (WIR) determination “could be managed and disposed of as MLLW.” See also Section 1.2.2 (waste subject to a WIR Determination “may be managed under DOE’s authority as MLLW.”). The text then shifts to referring to the waste as MLLW, not only for disposal purposes, but for treatment purposes as well. (For example, Pg. 1-3, “classified as MLLW”; Pg. 1-4, “Following pretreatment, DOE would characterize and, if appropriate, classify the waste as MLLW”).

Note that DOE’s radiological waste classification process under DOE Order 435.1 is separate and distinct from the RCRA Land Disposal Restriction (LDR) requirements. The Order 435.1 WIR process is governed by internal DOE orders pursuant to its AEA authority, and does not affect any RCRA provisions. DOE acknowledged this concept in [DOE Order 435.1 Implementation Guide](#) (rescinded in 2021 associated with administrative changes to DOE Order 435.1):

“A treatability variance (40 CFR 268.44) and/or determination of equivalent treatment (40 CFR 268.42(b)) may be necessary to fully comply with the LDR standards if a DOE site elects to use a technology other than vitrification, the BDAT, of [sic] if it is impractical to comply with all the standards applicable to individual waste codes.”

In other words, waste subject to a WIR determination can be disposed of as MLLW for Atomic Energy Act and Nuclear Waste Policy Act purposes (i.e., disposed in a location other than a deep geologic repository), however, a WIR determination alone does not affect any RCRA regulatory requirements. Under RCRA, waste codes and treatment standards attach at the point of generation. Thus, the HLWIT LDR treatment standard attached to Hanford tank wastes at the point of generation and remains applicable unless and until one of the following factions occur:

(1) the waste is vitrified in accordance with the HLWIT standard prior to land disposal;

- (2) the regulatory authority for the disposal site issues a site-specific treatability variance under 40 CFR 268.44(h) (plus treatment to satisfy LDR standards for any other waste codes other than D002 and D004-D011);
- (3) EPA issues a determination of equivalent treatment under 40 CFR 268.42(b) (i.e., treatment to some other method can be approved through a determination of equivalent treatment with respect to the HLVT treatment standard plus treatment for any other waste codes other than D002 and D004-D011);

or

- (4) EPA approves a no-migration petition for the disposal site under 40 CFR 268.6.

There is no new point of generation after pretreatment because the LDR treatment standard of vitrification (HLVT) has already attached to the waste and pretreatment does not meet the HLVT treatment standard. Thus, the change in treatability group principle does not apply after pretreatment.

We encourage the use of consistent and accurate terminology throughout the EA. Specifically, refer to the low-activity fraction of tank waste (including pretreated tank waste) as LAW to distinguish it from MLLW for RCRA treatment purposes. Note that using the term LAW is consistent with the Final Tank Closure and Waste Management Environmental Impact Statement for the Hanford Site (draft EA page 1-7). Specific changes to incorporate this general comment are also provided below.

HLVT LDR Treatment Standard

Include a description of how DOE intends to address the RCRA LDR treatment standard of HLVT, which attached to the tank waste at the point of generation (see above comment). Specifically, given that this draft EA is premised on the HLVT treatment standard not being met, describe how DOE plans to obtain a site-specific treatability variance, a determination of equivalent treatment, or a no-migration variance.

Specific Comments

Pg. 1-3, Section 1.2.1

Revise text as follows for accuracy: “The decanting, filtration, and IX process removed the key radionuclides (primarily cesium and strontium) from the tank waste, resulting in residual liquids classified as ~~MLLW~~LAW. The liquid ~~MLLW~~LAW was then packaged and transported to Perma-Fix Northwest (PFNW), a permitted waste treatment facility near the Hanford Site. At PFWN, the ~~MLLW~~LAW was treated and stabilized in grout.”

Pg. 1-5, Section 1.4

Revise text as follows for accuracy: “Following pretreatment, DOE would characterize and, if appropriate, classify the waste as MLLW for management and disposal purposes. DOE would treat and stabilize the ~~MLLW~~LAW by grouting and then dispose of the immobilized waste form in an appropriately permitted and licensed commercial disposal facility.”

Revise text as follows for accuracy: “Transportation (to a destination depending on the alternative) and disposal of the solid, stabilized waste at a permitted and licensed facility for disposal.” As worded, sentence can be interpreted to mean that transportation would not occur under some alternatives. Revised language clarifies that different alternatives have different disposal locations.

Pg. 1-6, Section 1.4

Revise text as follows for accuracy: “Under Alternatives 1 and 2, the treated/stabilized ~~MLLW~~LAW would be transported to either the WCS disposal facility near Andrews, Texas, or the EnergySolutions disposal facility near Clive, Utah, for disposal depending on its LLW classification. Under Alternative 3, DOE would transport the liquid ~~MLLW~~LAW to the WCS facility near Andrews, Texas. WCS would treat, stabilize, and dispose of the waste. Under Alternative 4, DOE would transport the liquid ~~MLLW~~LAW to the EnergySolutions facility in Clive, Utah.”

Pg. 1-6, Section 1.4, footnote 8

Provide a description of the disposal pathway in the event the waste stream is classified as greater than Class C.

Pg. 2-1, Section 2

Revise text as follows for accuracy: “Once characterized and classified as MLLW/LAW, the waste would be treated and stabilized by grouting and disposed of in a permitted and licensed commercial MLLW disposal facility.”

Pg. 2-1, Section 2.1.1

Revise text as follows for accuracy: “Transport the resultant liquid MLLW/LAW to the PFNW facility in Richland.”

Revise text as follows for accuracy: “Treat and stabilize the liquid MLLW/LAW via chemical treatment and grouting to form a waste that meets the land disposal restrictions (LDRs) of the Resource Conservation and Recovery Act (RCRA) and the waste acceptance criteria of a permitted and licensed disposal facility operated by either WCS (Class A, Class B or Class C MLLW) or EnergySolutions (Class A MLLW).”

Include in the above (third bullet point) a description of the type of RCRA variance DOE intends to pursue to meet RCRA LDR treatment standards.

Revise text as follows for accuracy: “Dispose of the MLLW/LAW at the permitted and licensed commercial ~~LLW~~/MLLW disposal facility.”

Page 2-2, Section 2.1.1, Figure 2-1

Revise the figure to reference “LAW” in place of the 2 references to “MLLW”.

Page 2-3, Section 2.1.1

The use of a non-elutable IX media would have different impacts than an elutable resin. The decision to use a non-elutable resin may have the greatest potential impact of any aspect of this proposal. We suggest that the EA discuss the difference in impacts.

The last sentence in the third full paragraph refers to “heavy metals and organics” but doesn’t describe the relative hazards of those constituents. Compare this lack of detail to the precise description of radiological content (e.g., “0.3 curies per container”). We suggest adding more detail about the heavy metals and organics.

Pages 2-3 through 2-4

Transportation to PFNW is discussed, but the steps of unloading the waste is skipped. Waste loading/unloading is a significant step with potential for accidents to cause releases, so we suggest adding discussion of that step. We note that page 2-3 the EA describes the loading of the waste at Hanford in more detail than is given to the unloading at PFNW.

Page 2-4, Section 2.1.1, Figure 2-2

Revise the figure to reference “LAW” in place of the reference to “MLLW” for accuracy.

Page 2-4, Section 2.1.1

Describe the type of RCRA variance DOE intends to pursue to meet RCRA LDR treatment standards.

Revise text as follows for accuracy: “After custodianship of the liquid ~~MLLW~~LAW is transferred to PFNW, Perma-Fix would perform the following actions:

- Treatment and stabilization of the liquid ~~MLLW~~LAW using an in-container mixer (ICM) to form a waste that meets the RCRA LDR requirements and waste acceptance criteria of the permitted disposal facility operated by either WCS or EnergySolutions; and
- Transport of the grouted waste in 55-gallon drums to the permitted and licensed commercial ~~LLW~~/MLLW disposal facility (estimated two truck shipments). The approximate highway distance from PFNW to WCS in Andrews County, Texas, is 1,800 miles. The approximate highway distance from the Hanford Site to EnergySolutions in Clive, Utah, is 650 miles.”

Page 3-24 through 3-26

The text on Page 3-24 states “As shown in Figure 3-1, the waste shipments for the proposed TBI Demonstration would be transported over federal highways for the majority of the route.” This omits discussion of LAW transported from Hanford over publicly-accessible roads located on US DOE property, then onto City of Richland streets. It omits discussion of treated waste transported over city streets until, presumably, transport would continue on I-182 and I-82.

Then the text on Page 3-26 about emergency response is generic, not specific. The responsibility for emergency response to a transportation accident may change as waste is transported from Hanford over publicly-accessible roads located on US DOE property, then onto City of Richland streets. We request added text to clarify the responsibility and capability for emergency response at each of these 3 stages (DOE property, City of Richland streets, and the Interstate highways) within Washington State.

Page 2-5, Section 2.1.1, 1st paragraph

The third sentence in the first paragraph reads, “The radioactive material licenses authorize PFNW to possess and process radioactive material, including treatment and stabilization.” This sentence can be interpreted incorrectly that only DOH's license would allow treatment of TBI phase 2 waste, which is “mixed radioactive and chemically hazardous waste”. Treatment of mixed waste at PFNW is regulated under a Dangerous Waste Regulations (DWR) permit. See Page 2-5 (“PFNW also operates under a permit for treatment and storage of dangerous waste (Permit Number WAR 000010355).”) PFNW's DWR permit does not currently allow for treatment of hazardous waste to which the HLWIT treatment standard has attached. As discussed above, a RCRA variance or determination of equivalent treatment would be required before PFNW could accept LAW for stabilization.

Section 3.3.2.1 (pg. 3-5) in the last sentence also reads; “...the liquid MLLW would be treated and stabilized at the PFNW facility using the ICM. Operations at PFNW would be conducted in accordance with its radioactive material licenses (WDOH 2019, 2020)”. PFNW's DWR permit addresses the permitted use of the ICM.

The above two quoted sentences are misleading and inconsistent with the last sentence of the first paragraph in Section 3.6.1.2, that reads; “The licenses *and permit* authorize PFNW to possess and process radioactive material, including treatment and stabilization.” (Emphasis added.) Ecology agrees with this sentence.

Please revise the sentences in Section 2.1.1 and Section 3.3.2.1 to refer to the DWR permit for accuracy and consistency throughout the document.

Page 2-5, Section 2.1.1, 2nd paragraph

Revise text as follows for accuracy: “For the proposed TBI Demonstration ~~LLW~~/MLLW, the PFNW facility would utilize a non-thermal treatment and solidification process, as was done for TBI laboratory-scale test.”

Page 2-5, Section 2.1.1, 3rd paragraph

The first sentence states “Once treated and stabilized, PFNW would transport the waste”

The third sentence states “In fiscal year 2020, DOE’s transportation contractors safely transported more than 3,200 hazardous materials shipments over six million miles with no USDOT recordable accidents.”

The fourth sentence refers to “DOE’s transportation contractors and transportation contractors used by PFNW” Page 3-26 refers to transportation by contractors to PFNW, and later indicates that PFNW would use DOE transportation. Update the EA with a more precise and consistent description of waste transportation.

The second sentence reads, “DOE estimates that two truck shipments would be required to handle the approximately 62 waste drums”. Update the EA to include the disposition pathway for the 6 process totes, including whether they will be decontaminated at PFNW and then sent back to the Hanford site for reuse or sent to the disposal site with the 62 waste drums. Also address whether there are other secondary wastes generated that will be sent for disposal with the 62 waste drums.

Page 2-5, Section 2.1.1, footnote 13

Revise text as follows: “~~PFNW~~ The current estimate for issuance of the PFNW Dangerous Waste Regulations permit renewal is October 2023~~is currently in discussions with Ecology to renew PFNW’s Dangerous Waste Regulations permit.~~ After the permit renewal, DOE would verify with Ecology that the 2,000 gallons of liquid waste could be treated and stabilized within the terms and conditions of the permit.”

Page 2-6, Section 2.1.2

Revise text as follows for accuracy: “The treatment in Tennessee would be accomplished using the same process applied at the PFNW facility under Alternative 1 to treat and stabilize the liquid ~~MLLW~~LAW in 55-gallon drums to meet the waste acceptance criteria for the permitted and licensed disposal facility.”

Page 2-6, Section 2.1.3

Revise text as follows for accuracy: “After custodianship of the liquid ~~MLLW~~LAW is transferred to WCS, the actions taken by WCS would include:

- Treatment and stabilization (immobilization) of the liquid ~~MLLW~~LAW to form a waste that meets the RCRA LDR requirements and waste acceptance criteria of the WCS FWF; and
- Disposal of the grouted waste at the WCS FWF.

WCS is permitted and licensed to accept liquid ~~MLLW~~LAW, treat and stabilize it, and dispose of the solidified Class A, Class B, or Class C as MLLW at the FWF (TCEQ 2021). Figure 2-4 presents the block flow diagram for Alternative 3.”

Describe how WCS is licensed to accept LAW.

Page 2-6, Section 2.1.4

Revise text as follows for accuracy: “After custodianship of the liquid ~~MLLW~~LAW is transferred to EnergySolutions, the actions taken by EnergySolutions would include:

- Treatment and stabilization of the liquid ~~MLLW~~LAW to form a waste that meets the RCRA LDR requirements and waste acceptance criteria of the EnergySolutions permitted and licensed disposal facility; and
- Disposal of the grouted waste at the EnergySolutions permitted and licensed disposal facility.

EnergySolutions is licensed to accept Class A liquid ~~MLLW~~LAW, treat and stabilize it, and dispose of the solidified Class A MLLW at its facility (UDEQ 2020a, 2020b).”

Describe how EnergySolutions is licensed to accept LAW.

Page 2-7, Figures 2-3 and 2-4

Revise the figures to change “MLLW” to “LAW”.

Page 2-8, Figures 2-5

Revise the figure to change “MLLW” to “LAW”.

Page 2-9, Section 2.3

Revise text as follows for accuracy: “Because the process totes and drums of grouted ~~MLLW~~LAW are readily capable of being transported on a legal-weight truck and there is not direct rail access to the 200 East Area, this EA does not evaluate transportation of these materials via rail.”

Page 3-2, Table 3-1

Revise the third sentence in the Socioeconomics and Environmental Justice Rationale to change “MLLW” to “LAW” for accuracy.

Section 3.3

2020 inventory values have already been provided to Ecology and could be included or substituted for 2019 values.

Page 3-3, Section 3.3.2.1, Paragraph 3

Incorrect citation to AOP regulations (Title 173, Chapter 401—not Chapter 480)

Page 3-3, Section 3.3.2.1

There is no reference to the applicable requirements of WAC 173-400, such as 173-400-040 (General standards for maximum emissions), 173-400-075 (Emission standards for sources emitting hazardous air pollutants), 173-400-105 (Records, monitoring, and reporting), 173-400-110 (New source review for sources and portable sources)

In particular, there is no mention of the need for NOC Approval Orders for any activities not already incorporated into the AOP or whether the TBI activities meet the requirements of current Approval Orders for 241-SY and the exhausters.

Page 3-4, Table 3-2

The provided table is incomplete for the site and not representative of emissions from DSTs. Currently, potential to emit from the tanks alone includes more than 100 TAPs, not including other significant on-site TAPs such as diesel exhaust particulate matter from engines. Additionally, the 2019 emission inventory doesn’t represent the significant increase in emissions expected when DFLAW/WTP actually begins to operate. Even though TAP emissions are significantly less than the criteria pollutant emissions listed in Table 3-2, including just ammonia makes it appear that this is the only TAP of concern for Hanford and the DSTs.

Table 3-2, or an additional table, should include a more complete list of expected TAP emissions. If inventory values are presented, discussion should address that Hanford has generally not reported most TAPs and the justification for their omission on the inventory.

Page 3-5, Section 3.3.2.1, Paragraph 1

There is no mention as to whether the exhauster will continue to run during insertion of ITPS to maintain negative pressure in the tank, or of potential changes in emission from this step. Emissions, including VOC and other criteria pollutants, should be addressed for this step.

Page 3-5, Section 3.3.2.1

“No air emissions would occur during this process since the filtration, IX, and pumping would be within the actively ventilated head space of the tank.”

- The tanks are constantly emitting and agitation of tank waste tends to release vapors from the waste. The discussion should address emissions from the tanks during TBI compared to what is authorized in current Approval Orders and the Air Operating Permit.
- Current Approval Orders may be based upon the site boundary, rather than the current ambient air boundary identified in the “Memorandum of Agreement Between the U.S. Department of Energy Richland Operations Office and office of River Protection and the Washington State Department of Ecology Regarding the Hanford Ambient Air Boundary,” signed July 22, 2020.

Page 3-5, Section 3.3.2.1

“Air displaced from the totes during filling would be vented through high-efficiency particulate air filters, which are more than 99.95 percent effective in capturing radionuclides. The resultant emissions would contain negligible concentrations of radionuclides.”

- How is “negligible concentrations of radionuclides” defined?
- There is no mention whatsoever of the criteria and/or toxic air pollutants that would be emitted during this displacement, which apparently would be unabated except for particulate matter (no mention of any treatment or control other than HEPA filters for the rad emissions).

Page 3-5, Section 3.3.2.1

Potential emissions from the backwashing, drying, and equipment removal/disposal processes are not addressed. The process could potentially be referenced to elsewhere in the document, such as Section 3.6.2.1, but there should be a discussion as to what is known about whether equipment will be ventilated through the tank and an exhauster, isolated from the tank, or otherwise handled for these steps. Resultant emissions, including VOC and other criteria pollutants, should be addressed for this step.

Page 3-5, Section 3.3.2.1

“Operations at PFNW would be conducted in accordance with its radioactive material licenses.”

- There is no mention of the BCAA permit for criteria and toxic air pollutant emissions from PFNW.

Page 3-5, Section 3.3.2.1

In both paragraphs, there are three sentences that reference “MLLW” inaccurately. Revise the sentences to change “MLLW” to “LAW”.

In the last paragraph, describe the type of RCRA variance DOE intends to pursue to meet RCRA LDR treatment standards.

Include a discussion on emission impact of heavy metals and organics (i.e., volatile organics) during the waste transfer from delay tote to process totes.

The 3rd sentence in the last paragraph reads, “the treatment and stabilization process entails chemicals and other material, such as cement or polymeric-like materials, being added to the MLLW in a bulk mixer inside of the permitted and licensed facility and transferred to a disposal container to cure.”

This sentence is misleading as it could be interpreted as there might be another treatment unit besides ICM. In addition, in the treatment with ICM, a 55-gallon drum serves as both the mixing vessel and the final disposal containers for the waste being treated in this process. Adding reagents to the LAW, mixing, curing, and disposal all takes place in the same 55-gallon drum. Revise the sentence to include a more accurate description of the treatment and stabilization process at PFNW.

Page 3-6, Section 3.3.2.1

“The approximately 2,000 gallons of MLLW processed under the Proposed Action would account for less than 1 percent of the annual treatment capacity of the ICM equipment at PFNW and would therefore not contribute to potential air impacts beyond those evaluated as part of the permits and licenses granted by the State of Washington.”

- This conclusory statement is not supported by any narrative description of the analysis that supports it. If the TBI waste can, and will be, accepted under current permits without increasing potential to emit this is a different situation than TBI being an additional new material added under the physical capacity of PFNW.
- This should be modified to recognize BCAA as the air permitting authority for PFNW.

The first sentences of the first and second paragraphs reference “MLLW” inaccurately. Revise the sentences to change “MLLW” to “LAW”.

Page 3-6, Section 3.3.2.2

The first sentence of the second paragraph references “MLLW” inaccurately. Revise the sentence to change “MLLW” to “LAW”.

Page 3-7, Section 3.3.2.3

The first sentences of the second and third paragraph reference “MLLW” inaccurately. Revise the sentences to change “MLLW” to “LAW”.

Page 3-8, Section 3.3.2.4

The first sentences of the second, third, and fourth paragraphs reference “MLLW” inaccurately. Revise the sentences to change “MLLW” to “LAW”.

Page 3-10, Section 3.4.2.1

The first and third sentences of the last paragraph reference “MLLW” inaccurately. Revise the sentences to change “MLLW” to “LAW”.

Page 3-11, Section 3.4.2.2

The first and third sentences of the second paragraph and the first sentence of the third paragraph reference “MLLW” inaccurately. Revise the sentences to change “MLLW” to “LAW”.

Page 3-11, Section 3.4.2.3

The first and third sentences of the second paragraph reference “MLLW” inaccurately. Revise the sentences to change “MLLW” to “LAW”.

Page 3-12, Section 3.4.2.4

The first and third sentences of the second paragraph reference “MLLW” inaccurately. Revise the sentences to change “MLLW” to “LAW”.

Page 3-14, Section 3.5.2.1

The first sentence of the first full paragraph and the first, third, and last sentences of the second paragraph reference “MLLW” inaccurately. Revise the sentences to change “MLLW” to “LAW”.

Page 3-14, Section 3.5.2.2

The first, third, and last sentences of the second paragraph reference “MLLW” inaccurately. Revise the sentences to change “MLLW” to “LAW”.

Page 3-15, Section 3.5.2.2

The partial sentence at the top of the page references “MLLW” inaccurately. Revise the sentence to change “MLLW” to “LAW”.

Page 3-15, Section 3.5.2.3

The second sentence of the first paragraph and the first, third, and last sentences of the second paragraph reference “MLLW” inaccurately. Revise the sentences to change “MLLW” to “LAW”.

Page 3-15, Section 3.5.2.4

The first, third, and last sentences of the second paragraph reference “MLLW” inaccurately. Revise the sentences to change “MLLW” to “LAW”.

Page 3-16, Section 3.5.4

The last sentence of the second paragraph twice references “MLLW” inaccurately. Revise the sentence to change both references to “MLLW” to “LAW”.

Page 3-17 through 3-18, Section 3.6.1.1

It is misleading to focus on LLW and MLLW without any description of HLW and DOE Order 435.1-1. As stated on Page 1-2, “Hanford tank waste is managed as HLW mixed with hazardous chemicals.” Provide a description of HLW and the Waste Incidental to Reprocessing process applicable at Hanford, including that waste subject to a WIR determination can be managed and disposed of as MLLW under DOE’s authority, but is not MLLW for RCRA LDR treatment purposes.

Page 3-19, Section 3.6.1.2

Revise text as follows for accuracy: “Under Alternative 1, PFNW would receive the liquid ~~MLLW~~LAW in totes from the Hanford Site, mix it with grout, containerize the resultant mixture in 62, 55-gallon drums, and transport the waste off site to the WCS facility near Andrews, Texas, or EnergySolutions in Clive, Utah, depending on the resulting MLLW classification.”

Page 3-19, Section 3.6.1.3

The first sentence of the third paragraph references “MLLW” inaccurately. Revise the sentence to change “MLLW” to “LAW”.

Page 3-21, Section 3.6.2.1

Revise text as follows for accuracy: “Under Alternative 1, the primary waste stream would begin with the pretreated ~~MLLW~~LAW produced from in-tank settling and the ITPS, continue with treatment and stabilization of the ~~MLLW~~LAW at PFNW utilizing a non-thermal, chemical treatment and solidification process using grout, as was done for the TBI low-activity test samples in 2017, and end with disposal at a permitted and licensed MLLW disposal facility. The final treated, grouted, solid material would be contained in approximately 62, 55-gallon drums and shipped to a MLLW disposal facility.”

Disposal of the grouted waste at the MLLW disposal facility would be conducted in accordance with the receiving facility's operating license, hazardous waste permit, and waste acceptance criteria. This will be the first treatment and stabilization of the MLLW/LAW at PFNW. is a routine activity. After the permit renewal, DOE would verify with Ecology that this activity would be allowed under its permit.

Describe how potential waste management impacts would be negligible if that language is retained.

Page 3-22, Section 3.6.2.2

The first, third, and last sentences of the second paragraph and the second sentence of the third paragraph references "MLLW" inaccurately. Revise the sentences to change "MLLW" to "LAW".

Page 3-22, Section 3.6.2.3

The second sentence of the first paragraph references "MLLW" inaccurately. Revise the sentence to change "MLLW" to "LAW".

Page 3-23, Section 3.6.2.3

The first sentence of the first full paragraph references "MLLW" inaccurately. Revise the sentence to change "MLLW" to "LAW".

Explain how treatment and stabilization of LAW at WCS FWF is a routine activity.

Page 3-23, Section 3.6.2.4

The first sentence of the first paragraph and the first sentence of the second paragraph references "MLLW" inaccurately. Revise the sentences to change "MLLW" to "LAW".

Explain how treatment and stabilization of LAW at EnergySolutions is a routine activity.

Page 3-23, Section 3.7.1

The first sentence of the first paragraph twice references "MLLW" inaccurately. Revise the sentence to change both references to "MLLW" to "LAW".

Page 3-24, Section 3.7.1

The first sentence of the second paragraph references "MLLW" inaccurately. Revise the sentence to change "MLLW" to "LAW".

Page 3-26, Section 3.7.2.1

The first sentence of the first paragraph references "MLLW" inaccurately. Revise the sentence to change "MLLW" to "LAW".

Page 3-28, Section 3.7.2.1

The second sentence of the first paragraph references "MLLW" inaccurately. Revise the sentence to change "MLLW" to "LAW".

Describe how LAW equates to MLLW for transportation purposes.

Page 3-28, Section 3.7.2.2

The first sentence of the first paragraph references "MLLW" inaccurately. Revise the sentence to change "MLLW" to "LAW".

Page 3-28, Section 3.7.2.3

The first and second sentences of the first paragraph reference "MLLW" inaccurately. Revise the sentences to change "MLLW" to "LAW".

Page 3-29, Section 3.7.2.4

The first sentence of the first paragraph references “MLLW” inaccurately. Revise the sentence to change “MLLW” to “LAW”.

Page 3-29, Section 3.7.3

The first sentence of the first paragraph references “MLLW” inaccurately. Revise the sentence to change “MLLW” to “LAW”.

Page 3-32, Section 3.8.2.2

Revise text as follows for accuracy: “The treatment and stabilization of ~~MLLW~~LAW from the proposed TBI Demonstration ~~w~~ould ~~n~~ot incrementally add impacts beyond those Ecology is evaluating during the permit renewal.”

Page 3-32, Section 3.8.2.3

The last sentence of the first paragraph references “MLLW” inaccurately. Revise the sentence to change “MLLW” to “LAW”.

Page 3-32, Section 3.8.2.4

The last sentence of the second paragraph references “MLLW” inaccurately. Revise the sentence to change “MLLW” to “LAW”.

Page 3-33, Section 3.8.2.4

The second sentence of the first paragraph and the first sentence of the second paragraph reference “MLLW” inaccurately. Revise the sentence to change “MLLW” to “LAW”.

Page 3-33, Section 3.8.2.5

The first sentence of the first paragraph and the first sentence of the last paragraph reference “MLLW” inaccurately. Revise the sentence to change “MLLW” to “LAW”.

Page A-2, Table A-1

The table name references “MLLW” inaccurately. Revise the table name to change “MLLW” to “LAW”.

Page A-5, Section A-3

The third sentence of the first paragraph references “MLLW” inaccurately. Revise the sentence to change “MLLW” to “LAW”.

Page A-6, Section A-3 and Table A-4

The third bullet point, the last sentence of the paragraph following the bullet point, and the table name reference “MLLW” inaccurately. Revise the sentences and table name to change “MLLW” to “LAW”.

Page A-6, Table A-5

The table name references “MLLW” inaccurately. Revise the table name to change “MLLW” to “LAW”.