

# Oregon Department of Energy

**200 West Update  
Oregon Hanford  
Cleanup Board**  
Matt Hendrickson  
August 4, 2025



# What are Holistic Negotiations

- The Holistic Negotiations is an agreed framework for safe waste retrieval and treatment at the Hanford Site between U.S. Department of Energy (USDOE), the Washington State Department of Ecology, and the U.S. Environmental Protection Agency (EPA).
- Current discussions revolve around the milestones to retrieve waste from 22 tanks in Hanford's 200 West Area by 2040 that includes options for grouting rather than traditional vitrification methods.

# WHAT IS 200W SUPPLEMENTAL ANALYSIS

## Milestone M-045-135 Retrieve 22 tanks in 200W

- An analysis of the potential environmental impacts of the project.
- Relies on several previous environmental impact statements.
- Compares the options of shipping liquids versus grouting on site (with buildout) and road versus rail transport.
- Pending a Waste incidental to Recovery (WIR) decision that this is Low Level Waste.

DOE/EIS-0391-SA-5  
Draft

### **Supplement Analysis of the Final Tank Closure and Waste Management Environmental Impact Statement for the Hanford Site, Richland, Washington**

**200 West Area Tank Waste Treatment**



Prepared for the U.S. Department of Energy  
Assistant Secretary for Environmental Management



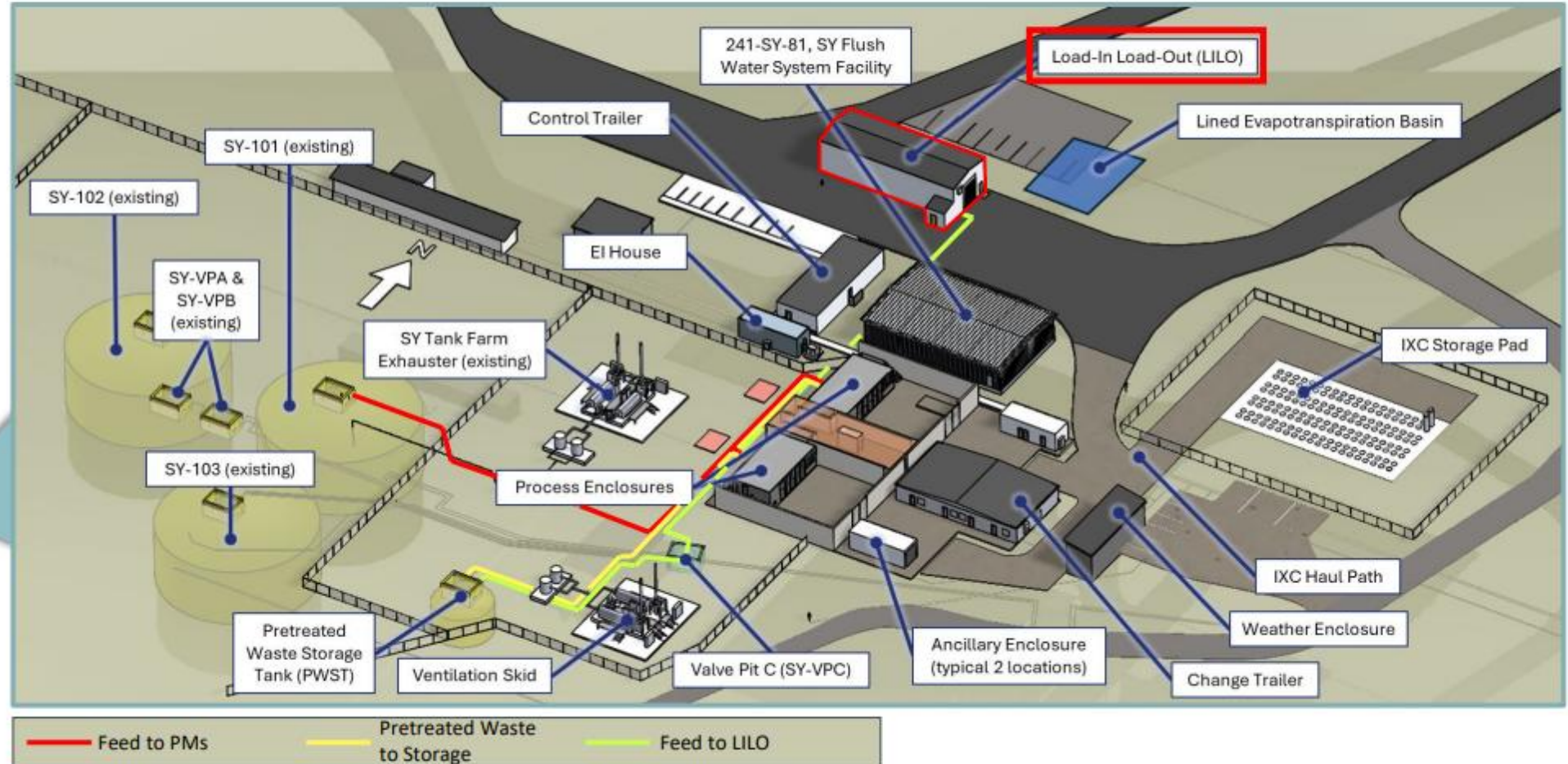
P.O. Box 550  
Richland, Washington 99352

## 200 WEST AREA



 SINGLE-SHELL TANK FARM  
 DOUBLE-SHELL TANK FARM

[https://www.hanford.gov/tocpmm/files.cfm/Combined\\_Industry\\_Day\\_Presentation\\_V4f.pdf](https://www.hanford.gov/tocpmm/files.cfm/Combined_Industry_Day_Presentation_V4f.pdf)



# Governor Kotek's Concerns



TINA KOTEK  
GOVERNOR

May 22, 2025

Hanford Mission Integration Solutions  
P.O. Box 450, H5-20  
Richland, WA 99354

To Whom it May Concern:

I write to convey the State of Oregon's strong concerns over the proposed actions included in the U.S. Department of Energy's (DOE) Draft Supplement Analysis (SA) for the 200-West Area Tank Waste Treatment, DOE/EIS-0391-SA-05.

The very consideration of transporting 32 million gallons of Hanford tank waste by rail or truck without adequate notice, discussion, or consideration of potential and inherent risks to the citizens of the State of Oregon is unacceptable. Furthermore, as proposed there will be no opportunity for meaningful participation of the public, or consultation with Tribal governments, in the NEPA process as the federal government moves forward toward a final decision.

With this in mind, I have directed the Oregon Department of Energy to provide its technical analysis and comments which I support and have attached here. For historical context of my position on this matter, I am also attaching a packet of correspondence from 2024, which includes a letter I sent July 11, 2024.

Thank you for your attention to this matter.

Sincerely,

A handwritten signature in black ink that reads "Tina Kotek".

Governor Tina Kotek

# Comments RECAP

- Oregon Hanford Cleanup Board (OHCB)
- Oregon Department of Energy (ODOE)
- Tribal Governments
- Industry and Environmental Groups

All submitted comments on the  
200W Supplemental Analysis  
DOE/EIS-0391-SA-5

## ODOE and OHCB Concerns

- Inherently riskier to transport liquids
- Need for broad engagement
- Appropriateness of risk analysis and reliance on older Environmental Impact Statements
- The scale of the project and off-site impacts perhaps at a National Level are quite large
- Desire for more clarity in routes and classification of material proposed to be shipped

# MAY 24 2024 TRANSPORTATION

- Class A
- Clive (Utah) and WCS (Texas) can accept.
- Assumption that this will have a long journey in Oregon.
- Majority of shipments are Class A and, as function of distance, are listed as lower cost to go to Clive.
- The assumption is that most/all shipments will pass through Oregon.
- Keep in mind the safety aspect of the natural shielding of concrete.
- Mixing radioactive liquid with grouting mix also dilutes the radioactive content.
- Reduces danger of High pH (alkaline) waste to waterways.
- How will other hazards such as volatiles be addressed?



Source: Reproduced from a Clive brochure.

# WHY IS CLASS A IMPORTANT

- Class A is the lowest level of NRC regulated Low Level Waste
- Tends to have lower dose rates
- Shipping containers are generally available and lower qualification requirements
- Much more disposal capacity for Class A if 90% of all solidified waste goes to Clive Utah it is only 16% of disposal capacity.
- The assumption remains that most/all Class A shipments will pass through Oregon.

Table 2-1. 10 CFR 61.55 Table 1 Radionuclides Concentration Limits

Radionuclide	Concentration (Ci/m <sup>3</sup> )
C-14	8
C-14 in activated metal	80
Ni-59 in activated metal	220
Nb-94 in activated metal	0.2
Tc-99	3
I-129	0.08
Alpha emitting transuranic nuclides with half-life greater than 5 years <sup>(2)</sup>	100 <sup>(1)</sup>
Pu-241	3,500 <sup>(1)</sup>
Cm-242	20,000 <sup>(1)</sup>

<sup>1</sup> Units are nanocuries per gram.

<sup>2</sup> Transuranic elements are those elements that lie beyond uranium on the periodic table. In the context of this table, they include Np-237, Pu-238, Pu-239, Pu-240, Pu-242, Am-241, Am-243, Cm-243, and Cm-244.

Source: Title 10, *Code of Federal Regulations*, Part 61, Subpart D, § 61.55, "Waste Classification" (10 CFR 61.55)

Second, the classification is determined by short-lived radionuclides. If radioactive waste does not contain any of the radionuclides listed in Table 1, classification shall be determined based on the concentrations shown in 10 CFR 61.55, Table 2 (recreated in the following Table 2-2). If radioactive waste does not contain any nuclides listed in either Table 1 or 2, it is Class A.

- If the concentration does not exceed the value in Column 1, the waste is Class A.
- If the concentration exceeds the value in Column 1, but does not exceed the value in Column 2, the waste is Class B.
- If the concentration exceeds the value in Column 2, but does not exceed the value in Column 3, the waste is Class C.
- If the concentration exceeds the value in Column 3 (i.e., GTCC), the waste is not generally acceptable for near-surface disposal.<sup>5</sup>
- For wastes containing mixtures of the nuclides listed in Table 2, the total concentration shall be determined by the sum of fraction rule.

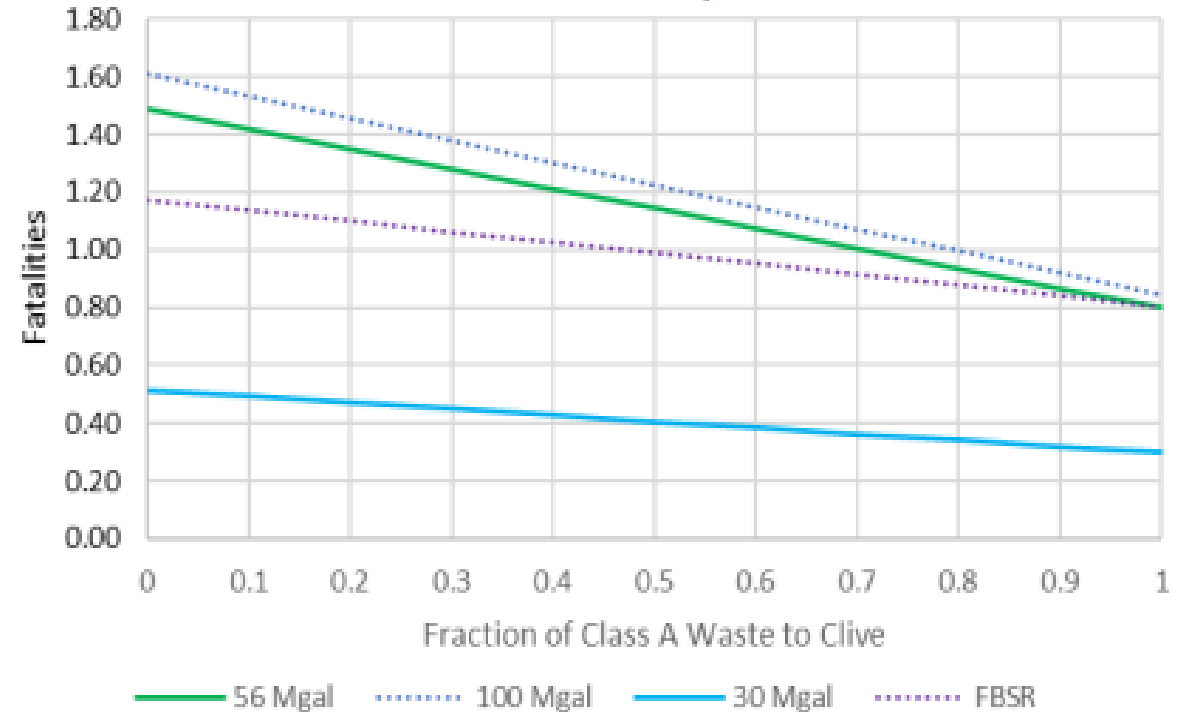
# TRANSPORTATION

**Figure H-35. Annual Waste Volume Accepted at Clive Compared to Mean Annual Volumes of Grout and Fluidized Bed Steam Reforming Waste Forms**



**Figure H-36. Rail Routes from the Hanford Site to Waste Control Specialists (Texas) and Clive (Utah)**

**Total Fatalities as a Function of Waste Split between Clive and WCS**



**Figure H-52. Total Fatalities During Transportation Campaign**

# WHAT'S CHANGED

- The fissile exemption is 15 grams(g) per container rather than 2g as assumed in the FFRDC study.
- The 7.5X increase means every tank could likely ship up to 5000 gallons of treated liquid per ISO container.
- Standardization is offset by the increased volume estimate now at 32MGal.

**Table 7-9. Pretreated Liquid Waste Transportation Category LSA-II Evaluation Results (2 pages)**

Source Tank	LSA-II Sum of A <sub>2</sub> per gram	< 10 <sup>-5</sup> A <sub>2</sub> /g LSA-II Conc. Condition	LSA-II Fissile Materials	< 15 grams Fissile Condition	LSA-II A <sub>2</sub> Inventory	< 100 A <sub>2</sub> Condition	Max Allowed Volume
	(ΣA <sub>2</sub> /g)	(Pass/Fail)	(g)	(Pass/Fail)	(ΣA <sub>2</sub> )	(Pass/Fail)	(gal)
SY-101	1.3E-07	Pass	9.3E-01	Pass	3.1E+00	Pass	80,603
SY-102	1.5E-07	Pass	1.1E+00	Pass	3.7E+00	Pass	68,530
S-101	2.4E-07	Pass	5.2E+00	Pass	5.7E+00	Pass	14,445
S-102	1.0E-07	Pass	4.8E+00	Pass	2.2E+00	Pass	15,668
S-103	9.3E-08	Pass	1.4E+00	Pass	2.1E+00	Pass	53,383
S-104	1.9E-07	Pass	2.7E+00	Pass	4.2E+00	Pass	27,533
S-105	1.1E-07	Pass	3.1E-01	Pass	2.6E+00	Pass	193,358
S-106	7.9E-08	Pass	7.2E-01	Pass	1.8E+00	Pass	104,786
S-107	3.2E-07	Pass	7.2E+00	Pass	6.9E+00	Pass	10,473
S-108	9.8E-08	Pass	2.1E+00	Pass	2.2E+00	Pass	35,273
S-109	9.2E-08	Pass	1.1E+00	Pass	2.2E+00	Pass	66,185
S-110	1.8E-07	Pass	1.1E+01	Pass	4.4E+00	Pass	6,550
S-111	1.1E-07	Pass	4.3E+00	Pass	2.5E+00	Pass	17,315
U-201	6.4E-08	Pass	2.7E+00	Pass	1.4E+00	Pass	27,470
U-202	4.9E-08	Pass	2.0E+00	Pass	1.0E+00	Pass	37,345

# WHAT'S THE SAME: SOLID FORM IS STILL BETTER

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- Dilutes and fixes the radioactivity: safer and *more materials qualify as Class A.*
- Naturally self shielding: safer *lower dose rates closer to the assumptions in the 1997 PEIS and if TBI doses hold true may meet the 1mR/hr rate.*
- ~~Less variability in shipping container and uses widely available materials and predictable footprint: safer~~
- Fewer transportation events means less potential for incidents and more efficient fuel use: safer and more sustainable. Now Uncertain.
- If an accident occurs, solid form contains pollution spread: manageable; *controls the caustic hazard, metals, nitrates, and potentially other volatile components.*
- Supports employment and economic activity in the local region. More sustainable. *Limits system wide impacts from grouting 2.9MGal. Of liquid off site.*

# NEXT STEPS

## Milestone M-062-64 12/31/26 and WIR

- The WIR for 200W tanks is expected soon
- M-062-64 critical path schedule for permitting, constructing, and commissioning facilities and infrastructure needed to perform separation, pretreatment, and/or treatment, and mode of transport, for off-site disposal due end of year.
- Will there be more contract or RFPs released this year in support of M-062-64 decisions?

## THE HANFORD SITE | Acquisition Framework

### 2. Timeline

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PHASE	Timeline
Expression of Interest	2025 (Current)
Request for Proposal	2026
Proposal Review	2026
Contract Award	2026-2027
Full Operational Start	2029

[https://www.hanford.gov/tocpmm/files.cfm/Combined\\_Industry\\_Day\\_Presentation\\_V4f.pdf](https://www.hanford.gov/tocpmm/files.cfm/Combined_Industry_Day_Presentation_V4f.pdf)

## 3. Scope of Procurement

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- **Service Requirements**
  - **Transportation:**
    - Tanker load-in and load-out at source location
    - Safe and compliant transport to treatment and/or disposal facilities
    - Emergency response and contingency measures during transit
  - **Additional LDR Treatments as necessary:**
    - Organic removal or destruction
    - Chemical reduction
  - **Solidification (Grout):**
    - Cementitious or equivalent solidification to stabilize waste
    - Ensure compatibility with final disposal requirements
  - **Final Disposition:**
    - Out-of-state disposal solutions at licensed facilities
    - Ensure environmental protection and compliance with disposal regulations

# CONTINUED QUESTIONS

## Future Answers

- Will the volatiles treatment envisioned in industry day remove that hazard to waterways. Solid form also mitigates corrosive hazard.
- Will dose rate in treated waste get closer to previous EIS's limits? TBI data may be illuminating but grouted material is still self-shielding.
- Need more clarity on shipping routes, classification, and volumes: is the FFRDC report, SA-05, or the upcoming WIR closest to expected reality?
- Without an EIS process how will DOE engage impacted communities and emergency responders? Perhaps a roadshow like WIPP?



# Questions?

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# Thank You