Oregon Department of **ENERGY**

What's happened since our July meeting?

Ken Niles
November 5, 2018

OREGON DEPARTMENT OF ENERGY


Hanford
Radioactive
Tank Wastes
Safe Storage,
Treatment,
and Closure
OMSI Science Pub
Jeff Burright
August 2, 2018


OREGON DEPARTMENT OF CORRECTIONS
Why is Oregon involved in the Hanford Nuclear Site clean-up effort?
Our Columbia River flows through Hanford
Our Columbia River is at Risk
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HANFORD NUCLEAR SITE
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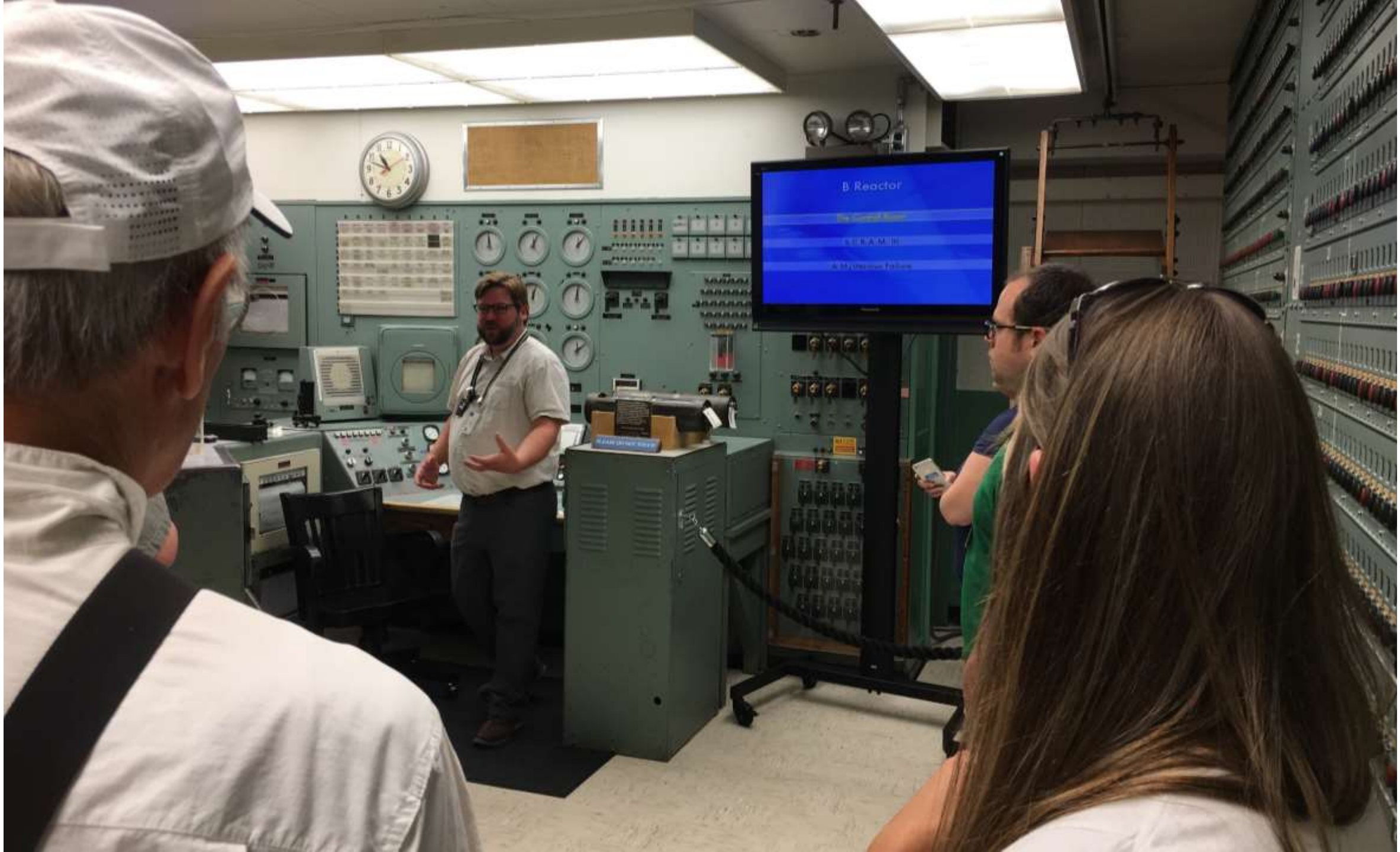

B Reactor

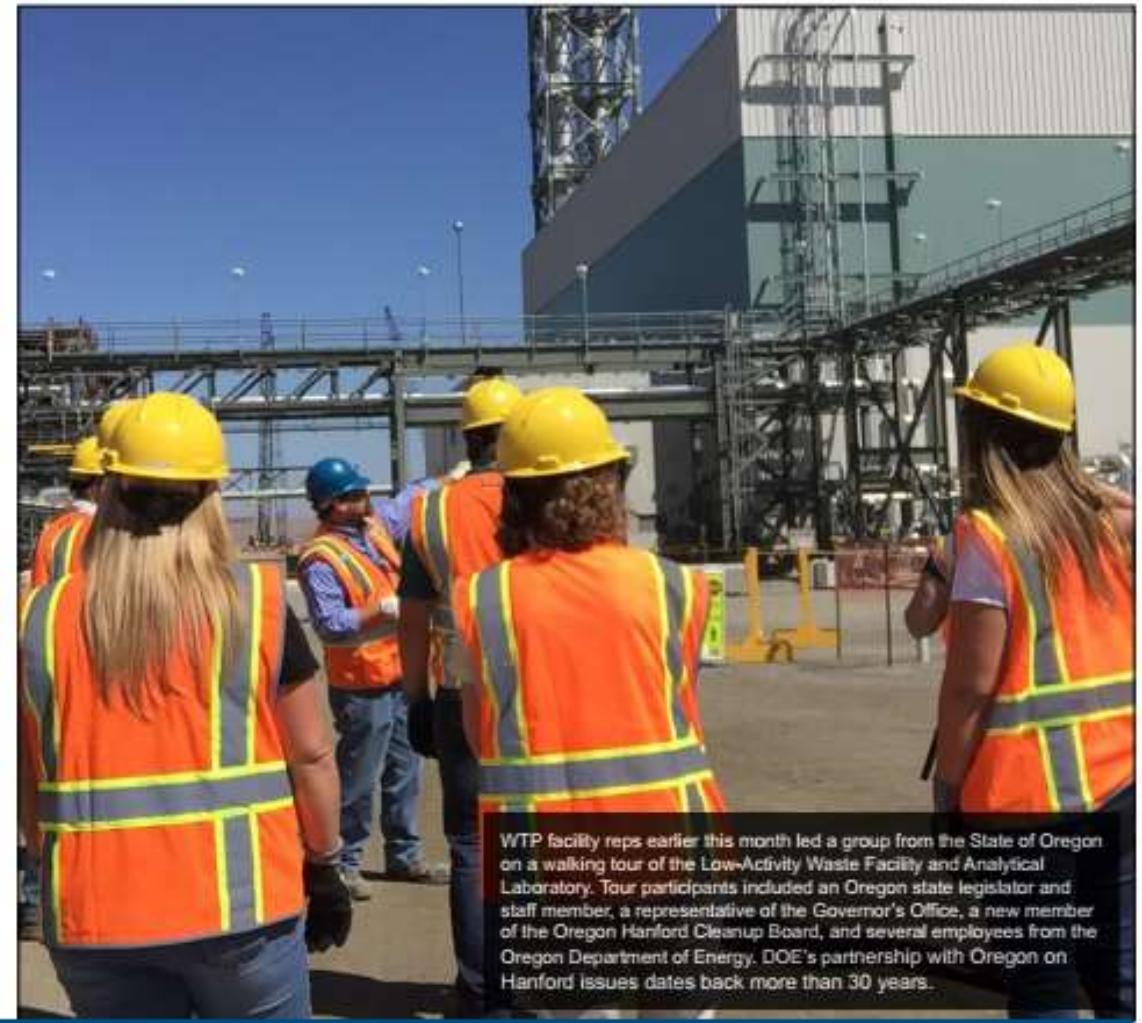
The Department of Energy and the State of Oregon

Standing the Test of Time

"The U.S. Department of Energy recognizes Oregon's unique role and interests at Hanford, and its concerns to protect the resources of the Columbia River, and is interested in sharing, facilitating and accommodating the exchange of information."

The Oregon group got an update on Hanford groundwater projects from John Rendall of CHPRC during their August 1 tour.

Bill Borlaug discusses operations at the Environmental Restoration Disposal Facility with participants on the Oregon tour, several of whom were visiting the site for the first time. Steve Pfaff, left, was tour guide for the day.



WTP facility reps earlier this month led a group from the State of Oregon on a walking tour of the Low-Activity Waste Facility and Analytical Laboratory. Tour participants included an Oregon state legislator and staff member, a representative of the Governor's Office, a new member of the Oregon Hanford Cleanup Board, and several employees from the Oregon Department of Energy. DOE's partnership with Oregon on Hanford issues dates back more than 30 years.

Since the signing of the Tri-Party Agreement (TPA) in 1989, few stakeholders have been as invested or engaged in Hanford cleanup as the State of Oregon.

In fact, DOE's relationship with Oregon on Hanford even predates the TPA, with the two sides signing a formal Memorandum of Understanding (MOU) in 1986, an agreement which expressed the "desire of the parties to cooperate in matters of mutual interest."

That first MOU was revised in 1997, and again in 2004, to add ORP. The agencies most recently updated the document in April 2017.

part:

"The U.S. Department of Energy recognizes Oregon's unique role and interests at Hanford, and its concerns to protect the resources of the Columbia River, and is interested in sharing, facilitating and accommodating the exchange of information."

This exchange of information typically involves in-person meetings or other correspondence with management and staff from the Oregon Department of Energy's (ODOE) Nuclear Safety Division. This wing of ODOE is responsible for the technical review and assessment of Hanford cleanup efforts, community outreach and

Oregon Hanford Cleanup Board, along with other non-Hanford work.

Over the years, Oregon has written a number of letters and "position papers" to provide feedback and guidance to DOE on various issues. Regular consultation between the agencies helps build understanding on issues of shared interest, and can facilitate more informed comments and input from Oregon on key Hanford cleanup decisions.

While DOE and Oregon may not always agree on the best path forward, it is a working relationship that continues to be valued by both agencies.

and respect allows for open and transparent discussions and gives Oregon an important voice in Hanford cleanup decisions."

"Oregon has a tremendous stake in ensuring the safe and timely cleanup of Hanford," added Ken Niles, ODOE's Assistant Director for Nuclear Safety. "We appreciate the ongoing collaboration with federal and state partners to better understand the issues and ensure cleanup is protective of the Columbia."

The joint DOE-Oregon MOU can be found here. http://doesp.rl.gov/pia/ORP%20Standard%20Media%20Files/FINAL%20-%20DOE_OREGON%20MOU%20041317

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Energy Communities Alliance

FCOG ENERGY FACILITY CONTRACTORS GROUP

U.S. DEPARTMENT OF ENERGY | Environmental Management

"You need to have some of these things to go ahead and say this is what we've done with the plus-ups. Give us more plus-ups and we'll get more done. That's the importance of these kinds of things. That's measurable progress that helps EM do better in budget space."

Anne White, DOE Assistant Secretary for Environmental Management

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“We’ve reached a point in this project that we’ve not been at before — we can see the start of tank waste treatment right in front of us.”

Brian Vance, DOE-ORP Manager

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"The WTP site is a different place than it was even a year ago, and there's a new energy to the team. We're seeing the goal line in the distance. We have strong nuclear safety, industrial, and quality assurance programs in place and a bias for action to bring the plant online in accordance with our contract."

Brian Reilly, WTP Project Director for Bechtel National

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EM-120 Day Initiatives

- Implement End State Contracting to enable and drive the accelerated completion of work
- Collaboratively develop a re-energized EM vision statement and EM-wide strategic plan
- Examine the use of risk based definitions for our waste to potentially allow us to strategically maximize the use of existing licensed disposal facilities and accelerate moving waste into permanent disposal facilities
- Re-energize deactivation & decommissioning efforts to safely tear down aging infrastructure and reduce lifecycle costs

EM-120 Day Initiatives (continued)

- Align our regulatory agreements and commitments to ensure attainable outcomes that are tied to a risk-based analysis and future land use
- Advocate for change to targeted orders and regulations to streamline and enable success
- Ensure ongoing excellence in our workforce through succession planning and retention of institutional knowledge and critical skill sets

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Tank vapors settlement agreement

- Acknowledges extensive actions taken by DOE and its contractor to protect workers from potential exposure
- Completion of ongoing testing (and potential deployment) of a thermal treatment system
- Completion of testing (and potential deployment) of a high velocity fan to mix gases and vapors with ambient air
- Installation of an active exhaust ventilation system in the A Farm
- Other specific activities

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Settlement agreement impact on tank retrieval milestones

- Specified A and AX farm tank retrievals extended by 2 ½ years (from March 31, 2024 to September 30, 2026)

- Retrieval of at least five tanks in the C, A and AX farms extended by six months (from December 31, 2020 to June 30, 2021)

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RIVER PROTECTION
United States Department of Energy

RICHLAND OPERATIONS OFFICE
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Hanford Events Calendar

<< Previous Year << Previous Month 2018 Next Month >>

Jan Feb Mar Apr May Jun Jul Aug **Sep** Oct Nov Dec

List View | Calendar View| Daily View

Event:	Ecology Led 45-day Public Comment Period on Proposed Modification to PUREX Storage Tunnels
Category:	Public Comment Periods
Event Date:	Aug. 13 – Sept. 27, 2018

This is an Ecology led public comment period.

Second Comment Period on Proposed Modifications to PUREX Storage Tunnels
August 13, 2018 – September 27, 2018

Ecology invites you to review and comment on this proposed permit modification to the Sitewide Permit. The proposed permit modifications affect the PUREX Storage Tunnels located on the Hanford site. The tunnels store waste, mostly large equipment components, from the PUREX Plant and other onsite sources. By completing the response action for Tunnel 1 and the proposed interim closure action for Tunnel 2, the tunnels will continue to safely store the waste.

The proposed changes include draft permit language reflecting the response actions taken to grout Tunnel 1 and the proposed interim closure action for Tunnel 2. The draft changes include a proposal to fill Tunnel 2 with engineered grout to help mitigate potential threats to human health and the environment. This will not preclude remedial or final closure actions until future cleanup decisions have been reached. Because the tunnels will no longer accept waste, this proposed permit modification will add the PUREX Storage Tunnels as a closing unit to the Hanford Facility RCRA Permit, Revision 8c.

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“We’ve received many thoughtful, well-founded criticisms of grouting, but in the end we must protect Hanford workers, and the surrounding communities and environment. Grout is the best way to ensure the tunnel and its contents are safe until final decisions are made on how to deal with the waste.”

Alex Smith, Ecology Nuclear Waste Program Manager

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Ecology cited several reasons for allowing the grouting to proceed:

- The tunnel is structurally unsound, and recent photos show corrosion on metal support structures inside. It doesn’t meet engineering standards to support the 8-foot-deep load of dirt on top that serves as a radioactive shield.
- A collapse could result in a release of radioactive contaminants, potentially endangering workers and the environment.
- If the final cleanup decision is to remove the waste, Energy would have to first fill the tunnel with concrete in order to shield workers removing the waste from the radioactivity.

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"…the most outrageous and insulting disregard of public comment in the sad history of Hanford cleanup."

Gerry Pollett, Heart of America Northwest

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Oregon comment letters

- Draft Waste Incidental to Reprocessing evaluation

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"The state of Oregon, the public, and the Hanford Advisory Board all recommended that DOE-RL move up the date to place cesium-strontium capsules in dry storage. Ecology accordingly requests that DOE-RL…(seek) supplemental funding to accelerate the move to dry storage. Ecology also requests DOE-RL to change the proposed 2025 milestone date to 2021 or as soon as technically feasible."

Letter from Alex Smith, Ecology to Doug Shoop, DOE-RL, July 19, 2018.

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“DOE has provided a formal appeal to Congress…to allocate $10 million to (the cesium capsule project), increasing funding from $1 million to $11 million to ensure the project stays on schedule.”

“RL’s position is that the proposed 2025 date is appropriately aggressive, risk informed, and commensurate with the technical approach.”

Letter from Doug Shoop, DOE-RL to Alex Smith, Ecology, August 23, 2018.

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Hanford Advisory Board meetings

- September 18-19 – Bellevue
- Dan for OHCB, Jeff for agency
- 2 pieces of consensus advice
  - Double-shell tank failures
  - WIR Evaluation for Closure of Waste Management Area C

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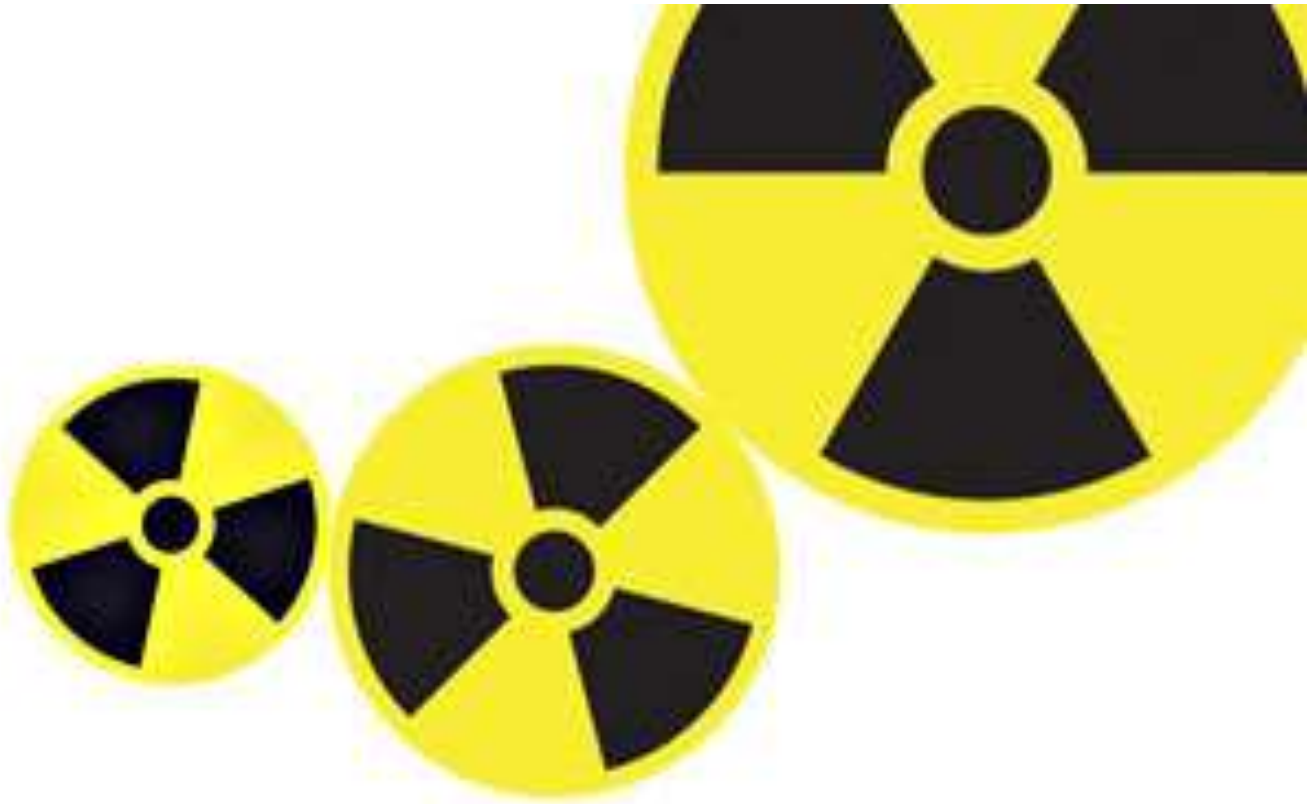
The bizarre world of nuclear…



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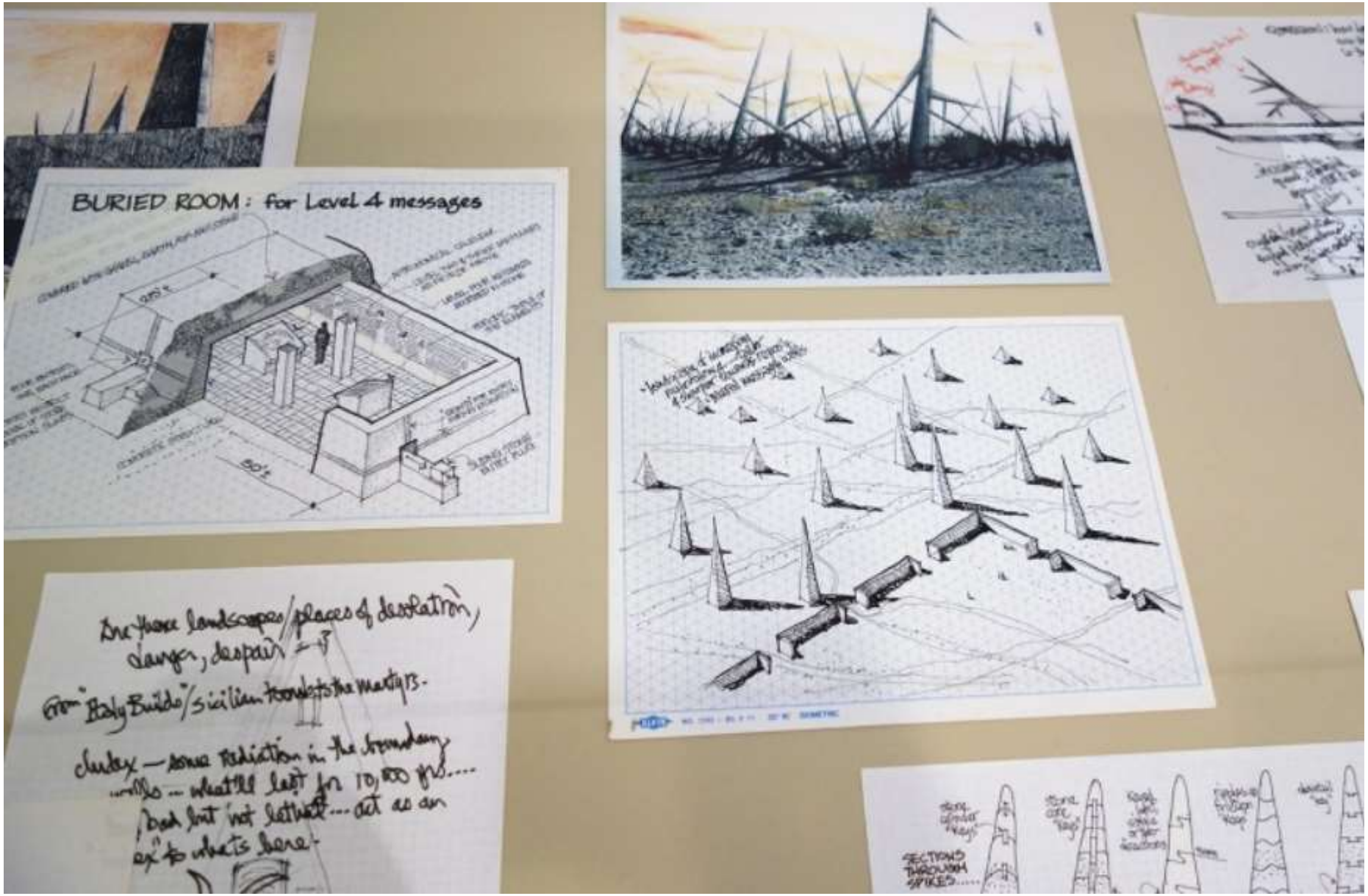
Sticks and Stones: The Nike Missile Cozy Project

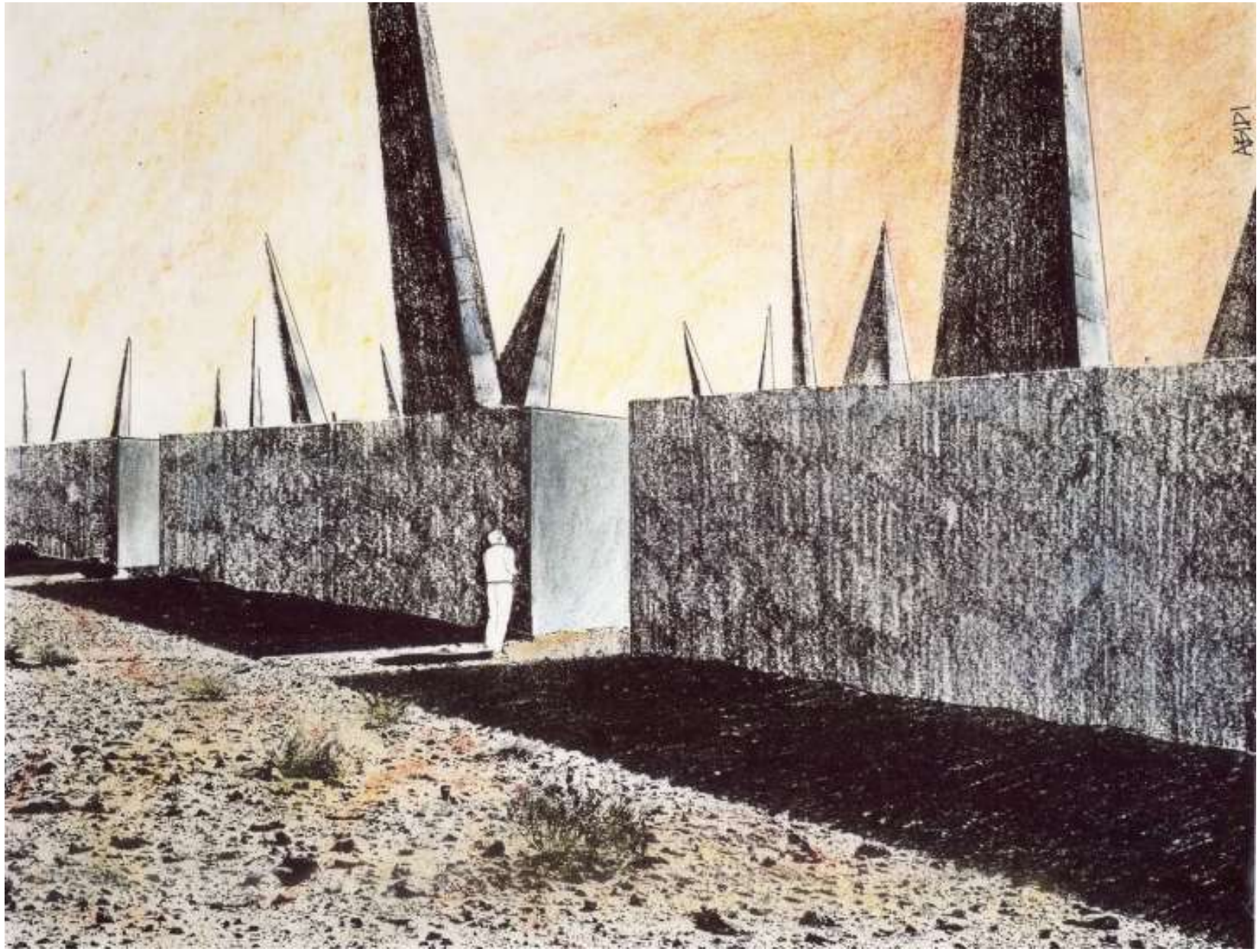
Auto Immune Response: Confluence of 3 Generations

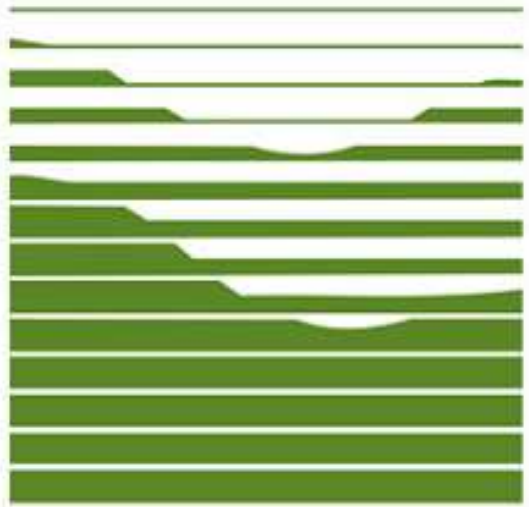
Woodland Child in Gas Mask

Expert Judgment on Markers to Deter Inadvertent Human Intrusion



Expert Judgment on Markers to Deter Inadvertent Human Intrusion





AMERICAN
SOCIETY OF
LANDSCAPE
ARCHITECTS

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Glass Wall with 10' x 10' Void on the other side
Recessed Mound Area -60' below Grade
Crushed Concrete Path bringing Visitors to the Bottom of the Depression 5% Slope
Crushed Concrete Parking Area located for ease of stopping after passing by car
Viewing Area with Glass Wall directing Visitors toward the Democratic Republic of Congo
Site I Plan
0' 25' 50' 100' 200'
Recessed Area -60' Below Grade (Access Restricted)
Concrete Wall Dividing Site 80' tall (+20' above grade, -60' below)
Viewing Platform directing Visitors towards ERDF 10' x 10' Glass Bottomed Floor over an 80' Void
Raised Mound Area +20' above Grade
Crushed Concrete Path bringing Visitors to the Top of the Mound 5% Slope
Crushed Concrete Parking Area located for ease of stopping after passing by car
Viewing Area with Glass Wall directing Visitors toward Nagasaki, Japan
Hanford Site Perimeter Fence
Site II Plan
0' 25' 50' 100' 200'


Glass Wall with 10' x 10'
Void on the other side
Recessed Mound Area
-60" below Grade
Crushed Concrete Path
bringing Visitors to the
Bottom of the Depression
5% Slope


Recessed Area
-60' Below Grade
(Access Restricted)
Concrete Wall Dividing Site
80' tall (+20' above grade,
-60' below)
Viewing Platform
directing Visitors towards
ERDF
10' x 10' Glass Bottomed
Floor over an 80' Void
Raised Mound Area
+20' above Grade
Crushed Concrete Path
bringing Visitors to the
Top of the Mound
5% Slope


ENVIRONMENTAL RESTORATION DISPOSAL FACILITY

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