

Hanford Advisory Board Notes for Blue Ribbon Commission

Susan Leckband, Chair July 14, 2010

The Hanford Site's place in history is well documented, from the beginnings of the Manhattan Project through the cold war and now in terms of environmental remediation. In addition to huge nuclear processing "canyon" facilities and smaller supporting buildings, there are miles of trenches, ditches, ponds, cribs plus underground tanks and miles of piping containing nuclear wastes from past operations. These wastes require remediation actions in many forms, from simple demolition to retrieval, treatment and repackaging for final disposal both on and off the Hanford Site. The waste burden that will be left on the Hanford Site when remediation is complete is huge.

Today, we are again in the midst of construction. But this time the focus is on building a Waste Treatment Plant that will convert approximately 50 million gallons of nuclear waste into a more stable form (glass) so that it can be permanently disposed in a national repository. That's the plan, to take the canisters of vitrified high level waste created by the WTP and dispose of them in a national repository.

You'll notice that I use the collective "we" when describing what is currently happening at Hanford. The public has become involved as not only observers but participants in the cleanup decisions being made. We, the Hanford Advisory Board, are part of that "stakeholder" segment of the public who follow Hanford cleanup very closely and provide advice, comments, and recommendations, and engage in dialogue with the Department of Energy and federal and state regulators on a wide spectrum of Hanford cleanup issues and decisions.

We recognize the Hanford cleanup race is not a sprint – it is a marathon. We're called stakeholders because we have a stake in the outcome – we live here, we breathe the air here, we use the water resources of the Columbia River, and future generations of our families will live here. The health and livelihoods of citizens of the Pacific Northwest, for generations to come, may be impacted if the cleanup is not adequate.

The Hanford Advisory Board is concerned that Hanford will become a defacto High Level Waste (HLW) repository for the vitrified waste that will be the product of the Waste Treatment Plant currently under construction at Hanford, resulting in:

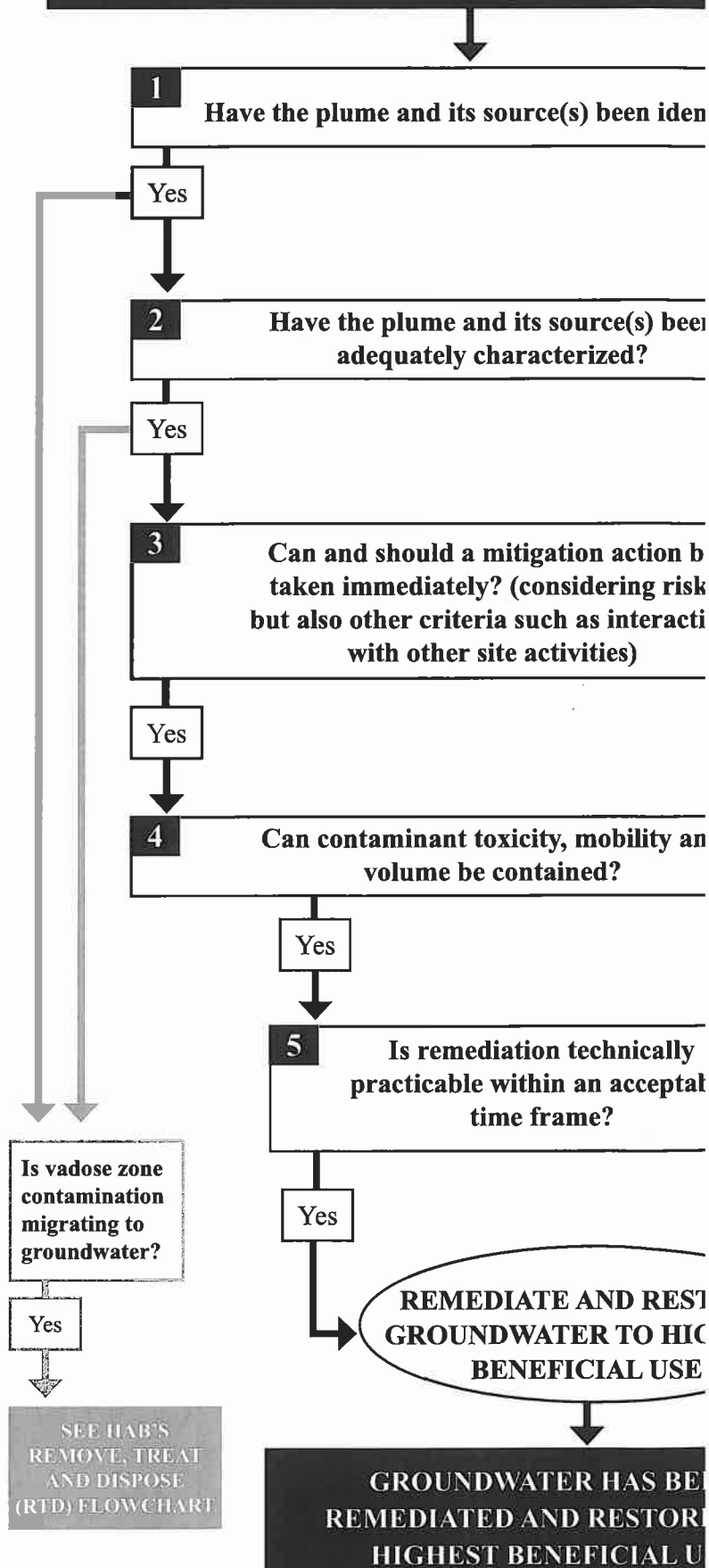
- potential impacts to Vadose zone/groundwater/Columbia River
- financial burden – need to build short and/or long term HLW storage capacity. Even "interim" HLW storage could last for decades – (will money be taken away from cleanup to construct and maintain this interim or long-term storage?)
- increased total waste "load" for the site (very long radioactive half-life)
- over time the national will (along with funding) to remove the HLW from Hanford to an offsite repository may fade
- delays in identification of a national HLW repository could drive costly design changes that may be needed to match the vitrified HLW canister specifications to new/different repository waste acceptance criteria.

Values

- Groundwater is to be cleaned up and restored to the highest beneficial use.*
- Restoration should be within a reasonable time frame, commensurate with risk and Tri-Party Agreement timelines.
- Ongoing groundwater remediation activities and review processes should be fully funded.
- Technology development should continually be pursued to remediate and restore groundwater to highest beneficial use.*
- The public and tribes must have input to the remedy selection for groundwater, including the relevant timelines for remediation, and determination of the risk from foreseeable failures of institutional controls.
- Institutional controls are not an acceptable solution for contaminated plumes with the potential for migration.
- Remove, treat and dispose is the preferred action; natural attenuation as a remedy is not appropriate unless existing remedies are not technically practicable and relevant health and environment standards can be achieved in a reasonable time frame.
- The HAB expects DOE and its federal successors to retain control over long term stewardship and institutional controls of groundwater. This expectation should ensure that active measures to monitor and evaluate groundwater remediation will continue until it no longer poses a risk to human health and the environment.

* *Highest beneficial use is protective of all human health, ecosystems and Native American treaty rights.*

Hanford



HANFORD ADVISORY BOARD

A Site Specific Advisory Board, Chartered under the Federal Advisory Committee Act

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US Environmental
Protection Agency
Washington State Dept
of Ecology

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February 6, 2009

Shirley Olinger, Manager
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Ines Triay
Acting Assistant Secretary
Office of Environmental Management
EM-1/Forrestal Building
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1000 Independence Avenue
Washington D.C. 20585

Re: Surface Storage Capacity for Vitrified High-Level Waste is Needed to Facilitate Completion of Hanford Cleanup

Dear Ms. Olinger and Ms. Triay,

Background

The United States Department of Energy's (DOE) High-Level Waste (HLW) disposal strategy has long assumed that a licensed deep geologic repository will be available for disposal of vitrified waste from Hanford and other DOE sites. The Hanford Advisory Board (Board) supports the safe, timely, and permanent disposal of all processed HLW in a properly licensed deep geologic disposal facility.

The Board notes, however, that the national program to site and properly license a deep geologic HLW disposal facility has been, and continues to be, delayed. Should these delays continue, final disposition of treated and packaged HLW from Hanford will likely be significantly delayed, potentially resulting in cost increases from the construction and operation of secure storage and handling facilities for the canisters of vitrified HLW that will be produced by the Waste Treatment Plant.

In light of the above, the Board provides the following advice:

Advice

DOE should use a systems approach for contingency planning at Hanford on the basis of a deep geologic repository not opening on schedule. This approach would require that DOE

IIAB Consensus Advice #215

Subject: Surface Storage Capacity for Vitrified High-Level Waste is Needed to Facilitate the Completion of Hanford Cleanup

Adopted: February 6, 2009

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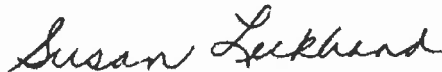
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perform extensive systems life-cycle analyses of viable scenarios for surface storage of vitrified HLWs on the Hanford Site. This storage capability must be sufficiently robust to store waste for decades, but not permanently. The Washington State Department of Ecology should permit the facility for a time period which obliges DOE to move forward with deep geologic disposal before storage risks increase. These analyses should include what impacts, if any, there would be on the Hanford cleanup schedule.

Further, vitrified HLW storage activities should not adversely impact the initiation, operation or completion of tank waste treatment. Therefore, storage capability should be sufficiently robust and flexible to accommodate the storage needs of the potential waste canister quantities throughout the treatment mission.

The Nuclear Waste Policy Act requires that Hanford's immobilized HLW be disposed in a deep geologic repository. DOE should make it a priority at the national level to properly site, evaluate, license, and commission a deep geologic repository for final disposition of HLW.

Sincerely,



Susan Leckband, Chair
Hanford Advisory Board

This advice represents HAB consensus for this specific topic. It should not be taken out of context to extrapolate Board agreement on other subject matters.

cc: David Brockman, Manager, U.S. Department of Energy Richland Operations Office
Elin D. Miller, U.S. Environmental Protection Agency, Region 10
Jay Manning, Washington State Department of Ecology
Doug Shoop, Co-Deputy Designated Federal Official, U.S. Department of Energy, Richland Operations Office
Steve Pfaff, Co-Deputy Designated Federal Official, U.S. Department of Energy, Office of River Protection
Richard Campbell, Environmental Protection Agency
Jane Hedges, Washington State Department of Ecology
Catherine Brennan, U.S. Department of Energy Headquarters
The Oregon and Washington Congressional Delegations



February 7, 1997

Ms. Jill Lytle
Deputy Assistant Secretary,
Nuclear Materials and Facilities Stabilization
U.S. Department of Energy Headquarters
Forrestal Building
1000 Independence Avenue SW
Washington, DC 20585

Subject: National Dialogue on Nuclear Materials and Waste

Dear Ms. Lytle:

The Hanford Advisory Board has developed the attached advice for your use in moving forward with the National Dialogue on Nuclear Materials and Waste.

We look forward to the rapid conclusion of the preliminary planning phase of this critical dialogue and are anxious to begin work. Thank you for the opportunity to participate.

Sincerely,

Merilyn B. Reeves, Chair
Hanford Advisory Board

Attachment

cc: Thomas Grumbly, DOE Headquarters
Al Alm, DOE Headquarters
John Wagoner, DOE Richland Operations
Chuck Clarke, U.S. Environmental Protection Agency
Tom Fitzsimmons, Washington Department of Ecology
Alice Murphy, Designated Federal Official
Randy Smith, Environmental Protection Agency
Dan Silver, Washington Department of Ecology
Washington & Oregon Congressional Delegations

**Hanford Advisory Board Consensus Advice on November 18 Draft National Dialogue
on Nuclear Materials and Waste**

Generally, the Hanford Advisory Board is supportive of the National Dialogue process so far, and we approve of the thrust of the latest draft proposal. We strongly encourage DOE to forge ahead with this

process. We suggest that, in order to show commitment and to initiate involvement, at least a "pilot effort" be launched in early 1997. The experience of the Plutonium Roundtable Forum, the Oregon Dept. of Energy focus groups or the Nez Perce Tribal Leaders Workshop could be used as a ready model for such a pilot.

While we have concerns about the draft proposal some of which are noted below, these concerns should not slow the process of convening the Dialogue. The draft is not the final charter. Such a charter should be approved by the consensus of the participants of the Dialogue. A pilot regional dialogue could improve the quality of such a charter by addressing some of the outstanding questions in the current draft.

The following reflect the current concerns of the Board:

DOE COMMITMENT TO NATIONAL EQUITY DIALOGUE PROCESS:

What commitment does DOE have to the Dialogue? Are all relevant DOE programs on board? This should be in writing in next draft. How much money can DOE commit? Will DOE support the administrative and data acquisition needs of

the Dialogue? How will Dialogue recommendations be used in decision process? It is a given that the Dialogue not provide an avenue for DOE to avoid compliance with applicable state and federal environmental laws and agreements.

GOALS OF THE NED:

The over-all goal is to implement a credible and sustainable dialogue for disposition of nuclear materials. Simply "exploring" equity and fairness is not adequate. These are key components of the dialogue. The initial regional and national meetings which define the values and principles upon which the dialogue is based should define what these terms mean in the context of the Dialogue.

There is a lack of clarity regarding who will present material to members of the public. USDOE should not be the sole source of information. Citizens groups need to be able to present background and issue information.

Regarding the regional meetings: We understand these are initially to develop regional values and principles in addition to educating and informing the public about nuclear materials issues. There should be a well defined feedback loop between the national and regional forums. The regional meetings need defined financial support. We recommend that regional stakeholders and the facilitator, not USDOE be supported to publicize the regional meetings.

SCOPE OF THE NED:

There should be specific language stating which EISs and PEISs will be covered. Final EISs should not, by default, be taken off of the table. For example, regarding Pu disposition, location of facilities outlined in the recent PEIS must be included. The relationship to the 10-year plan (10YP) should be spelled out including the relationship to the 10YP budget and measurements of progress in the Plan. The first product of the Dialogue should be definition of such key underlying concepts as equity and fairness. These could either shape or evolve from the definition of values and principles.

GUIDANCE:

Dialogue participants should have full access to unclassified information. In keeping with the Openness Initiative, a review of relevant classified information should be conducted, and where possible, that information should be declassified. The statement that DOE will make future decisions within context of the values and principles developed within the Dialogue and where not possible, DOE will present proposed decision to the steering committee and "will provide for the involvement of National Dialogue participants in the decision-making process", is problematic. The section in quotations is very unclear. Involvement needs further definition. Clarification of the role of states, tribes and local governments is needed.

PRODUCTS:

Clarification is needed regarding the sources of the data packages referred to in this section. There must be a systematic independent assessment of these data packages to include validity and reliability testing. Data needs to include cumulative impacts of various waste storage, disposal, processing and transportation decisions. A definition of values and principles such as that used by the Hanford TWRS Task Force is needed.

APPROACH/PROCESS:

Additional definition of phrases in this section is needed, specifically: who is meant by "parties not historically active in DOE decisions/issues". Historically active already includes: citizens groups, general public, state and local governments., tribes and more.

Who is being targeted by this statement that is not included in general public/tribes/ governments? What does "decision-testing" and "degree of commonality without" mean? Who will "strategically use mass media for broadest possible outreach"? We are not convinced that DOE will do a good job of this, since DOE generally not doing a good job of using mass media to involve public.

TIME FRAMES/SCHEDULE:

The time line is ambitious - especially for activities in early 97. Need to account for turnover, new Secretary of Energy, etc. With a pilot effort in the near-term, the overall timeline should be revised to be more realistic. There needs to be adequate time for the development and the verification of reliable data, the outreach and discussion of the issues, the development of regional meetings with coordination into a national discussion. There should also be a time for a return to the regional participants for a reality check.

PARTICIPATION:

We agree with the establishment of a steering committee with broader representation. The planning committee was chosen rather randomly. How will the steering committee be balanced as far as regions/issue/and stakeholder participation?

It is important to have the participation all shipper and receiver states in the Dialogue. Especially at the outset the participation of all large USDOE sites in the

planning group is critical. These should also include stakeholders at Savannah River, Oak Ridge, LANL and NTS. There should be a commitment from participants that there will be no side-deals either between sites or with sites and DOE which would undercut the comprehensive nature of the Dialogue.

This advice represents HAB consensus for this specific topic. It should not be taken out of context to extrapolate Board agreement on other subject matters.

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For questions or comments, please send email to Hanford_Advisory_Board@rl.gov

HAB Consensus Advice #66

Subject: National Dialogue on Nuclear Materials and Waste

Adopted: February 7, 1997

HANFORD ADVISORY BOARD

A Site Specific Advisory Board, Chartered under the Federal Advisory Committee Act

Advising:

US Dept of Energy
US Environmental
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Washington State
Dept of Ecology

April 9, 2010

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Greg deBruler
Paige Knight
Gerald Pollet

State of Oregon

Barry Beyeler
Ken Niles

Ex-Officio

Confederated Tribes
of the Umatilla
Washington State
Department of Health

Re: Hanford Long-Term Stewardship Program Plan

Dear Mr. Brockman,

Background

The Hanford Advisory Board (Board) appreciates the opportunity to provide early input into the development of, and to provide comments on, the Preliminary Draft of the Hanford Long-Term Stewardship (LTS) Program Plan (Plan), Revision C, dated February 25, 2010.

Over seven years ago, on December 6, 2002, the Board provided Advice #141, Long-Term Stewardship Plan¹ which provided the Board's comments on the previous version of this program plan. The principles expressed in that advice and other related Board advice² remain appropriate and valid today. The basis for the Board's advice has been consistent and unwavering for the permanent retrieval, treatment and disposal of all production mission hazards, and to protect and preserve human, biological, natural and cultural resources in a manner that does not impose a burden on future generations.

Under DOE current plans there will be areas used for waste disposal that will require surveillance and maintenance controls, access control and safeguards, system updates and periodic reviews for periods far into the future. We hope that future technological development could address our goal for retrieval, treatment and disposal.

This advice reiterates and augments past advice, tailoring it to this Preliminary Draft of the Plan. The Board recognizes that the Plan is not a "decision document;" rather it describes stewardship obligations and how decision documents "hand off" property and those responsibilities to the LTS Program. The Board also recognizes that some of the comments on the Plan may need to be further addressed in U.S. Department of Energy (DOE) decision documents, national agency policy, through interagency efforts, or subsequent implementation documents. Nonetheless, we believe it is appropriate to address them here as a part of this Plan review.

Envirolssues

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HAB Consensus Advice # 230
Subject: Hanford Long-Term Stewardship Plan
Adopted: April 9, 2010
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Advice

Site Ownership

- The Plan should address the possibility that federal ownership and/or control of the Site in perpetuity may not be realistic. The Board advises that the Plan and related decision documents offer, in addition to the assumption of perpetual federal ownership, scenarios that assume a loss of federal control/ownership. The viability of the Plan should be evaluated under these scenarios.

Federal Management of Long Term Stewardship Property and Mobile Hazards

- The LTS Plan should address DOE responsibility, obligations and plans to respond to contamination that, over time, may migrate beyond the Site boundaries. This discussion should also include the response for credible natural or man-made events or processes. Any previous agreements or future plans to coordinate with local and state governments regarding monitoring and emergency response procedures should be discussed.
- The Plan should clarify actions that will be taken to address changes in the Site mission, including an expanded role as an interim or long-term storage site for the Waste Treatment Plant produced glass logs and the spent nuclear fuel currently in storage at the Canister Storage Building.
- The Plan should clarify the process of transitioning land between managing agencies, between DOE offices and site contractors. This process should be fully explained and illustrated in the Plan.
- The Plan should clarify actions that will be taken and the capability it will have to address the discovery of further or previously unidentified contamination after remediation activities have been completed and the area turned over to the LTS Program. These actions would include potential future record of decision (ROD) amendments to return areas to an active remediation status.
- The Plan should fully explain the implications of Natural Resource Damage Assessments decisions to LTS operations and remedy cost.

Funding Long Term Stewardship Obligations

- The Plan should thoroughly detail all stewardship-related costs, and develop specific procedures for a real cost accounting (e.g. cumulative non-discounted cost) in addition to the Net Present Value (NPV) approach. DOE is required by Office of Management and Budget to perform an NPV analysis of the costs of LTS. The effect of this NPV method is that stewardship actions beyond thirty years will appear to cost

nothing. This approach is clearly inconsistent with our vision of reducing or eliminating costs to future generations. Given the extremely long periods involved with LTS and the annual nature of the Congressional budget process, an improved method which accurately describes the real costs of LTS should be adopted for use in the remedy selection process.

- The Plan should review other methods to fund LTS actions over the period of performance, i.e., alternatives to annual Congressional appropriations. The Board would like assurance that LTS responsibilities of federal and state agencies will be adequately funded in the future.
- If significant levels of plutonium contamination are present in areas under LTS, the Plan should reflect the need and the associated costs for active security or continuous human presence on the Site. (The Plan primarily discusses routine passive surveillance and maintenance.) Importantly, the Board reasserts its vision that all hazards be removed.

Remedy Reviews: New Information and Technologies

- The Plan should ensure new information and technologies that could improve the remedy be periodically assessed, possibly as part of the five-year review process. The Plan should discuss how it would support these technology developments, identification and implementation activities.
- The Plan should describe the process for adopting newly developed remedial and monitoring technologies into existing RODs, especially those that involve returning to an active restoration phase.
- The Plan should describe the processes for estimating the reliability of institutional controls and adopting new mechanisms in a manner analogous to failure analyses for engineered controls. The Plan should ensure incorporation of these processes into existing RODs and inform successive remedy revisions.

Information/Knowledge Management

- The Board advises accelerated development of the Hanford Long-Term Stewardship Information Management Plan (LTS IM Plan). The Plan recognizes that a viable information management program is a critical component of the LTS Program. The LTS IM Plan should:
 - Actively involve tribes and stakeholders in its scope and development.

- Seek opportunities to pool resources and integrate with existing legacy waste information management programs. These efforts should reflect an awareness of potential benefits/costs of collaborative strategies.
- Identify and pursue strategies that take advantage of significant historical facilities that could perpetuate public memory of past production, remediation, and future stewardship of the Site. The National Park Service study to establish a Manhattan Project National Historic Park is such an opportunity.
- In order to ensure that LTS information is not lost to future generations, DOE should continue the moratorium on record destruction and develop a plan to preserve historical records.

The Board looks forward to continuing to work with the Tri-Party agencies to assist with the determination of cleanup decisions. The Board's goal is to support implementation of a LTS Program that is protective of the environment and will not burden future generations.

Sincerely,



Susan Leckband, Chair
Hanford Advisory Board

This advice represents Board consensus for this specific topic. It should not be taken out of context to extrapolate Board agreement on other subject matters.

cc: Steve Pfaff, Co-Deputy Designated Official, U.S. Department of Energy, Office of River Protection
Doug Shoop, Co-Deputy Designated Official, U.S. Department of Energy, Richland Operations Office
Dennis Faulk, U. S. Environmental Protection Agency
Jane Hedges, Washington State Department of Ecology
Catherine Brennan, U.S. Department of Energy, Headquarters
The Oregon and Washington Delegations

¹ Hanford Advisory Board Consensus Advice #141, Subject: Long-Term Stewardship Program Plan, Adopted: December 6, 2002

² Hanford Advisory Board Letter, Subject: Institutional Controls & their Impacts on the Long Term Stewardship of the Hanford Site, dated: February 6, 2009