

HANFORD ADVISORY BOARD

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

Advising:

US Dept of Energy
US Environmental
Protection Agency
Washington State Dept
of Ecology

CHAIR:

Susan Leckband

VICE CHAIR:

Rick Jansons

BOARD MEMBERS:

Local Business
Harold Heacock

Labor/Work Force
Mike Keizer
Thomas Carpenter
Susan Leckband
Jeff Luke
Rebecca Holland

Local Environment
Gene Van Liew

Local Government
Maynard Pishuta
Pam Larsen
Rick Jansons
Rob Davis
Jerry Pettier
Jim Curdy
Bob Parks

Tribal Government
Russell Jim
Gabriel Bohnee

Public Health
Margery Swint
Jim Trombold

University
Mark Oberle
Gene Schreckhise

Public-at-Large
Norma Jean Germond
Keith Smith
Bob Parazin
Bob Suyama

Regional Environ-
ment/Citizen
Todd Martin
Greg deBruler
Paige Knight
Gerald Pollet
Susan Kreid

State of Oregon
Larry Clucas
Ken Niles

Ex-Officio
Confederated Tribes of
the Umatilla
Washington State
Department of Health

November 2, 2007

James Rispoli
Assistant Secretary for Environmental Management
EM-1/Forestal Building
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, D.C. 20585

Jay Manning, Director
Washington State Department of Ecology
P.O. Box 47600
Olympia, WA 98504-7600

Elin Miller, Regional Administrator
U.S. Environmental Protection Agency, Region 10
1200 Sixth Avenue
Seattle, WA 98101

Re: Proposed Decades of Delays to Hanford Cleanup from Tri-Party Agreement
Negotiations are not Justified

Dear Messrs. Rispoli and Manning and Ms. Miller,

Hanford cleanup actions which are vital to protect the Columbia River, the environment and public safety would be delayed by decades under proposals to change the Hanford Cleanup Agreement (Tri-Party Agreement, or "TPA") milestones.

The eight-year delay and cost overruns for construction and operation of Hanford's High-Level Nuclear Waste Vitrification Plant (WTP) prompted negotiations to change milestones. The Hanford Advisory Board (Board) does not believe that the agencies have demonstrated that this delay warrants changing the 2018 deadline to 2040 for emptying the wastes from leaky Single Shell Tanks (SSTs) and placing those wastes in compliant storage or treatment. Nor has the Department of Energy (DOE) demonstrated that the eight-year delay in operation of the WTP technically justifies delaying the completion of treating wastes and cleanup of tank farms until the year 2052, twenty-four years past the current deadline of 2028.

Delays to the TPA milestones should be based only on technical achievability not budget. Risks from delay, and the impacts on other cleanup actions, must be fully understood and mitigated. The Board is concerned that the proposals to delay

cleanup are based on DOE's inadequate cleanup budget "targets" and outyear funding projections. DOE's funding plans are admitted to fall *billions of dollars short* of funding the currently required work over the next ten years.ⁱ

The Board supports the proposal to create a Hanford Lifecycle Scope, Schedule and Cost Report (Hanford Lifecycle Report), to be due in September 2008. This report should detail the schedule on which each element of cleanup can be completed if full funding is available ("unconstrained" by DOE's target budgets). The report will also estimate the lifecycle cost of completing that work. This tool is innovative, building on legal requirements to report the lifecycle and annual costs of cleanup projects. It would be an important step forward by providing analyses of what is possible to accomplish if DOE's inadequate funding plans were not the basis for scheduling.

The Hanford Lifecycle Report should allow all parties to determine if Board-supported proposals for early startup of the Low Activity Waste (LAW) portion of the WTP and adding a third melter to the LAW portion of the WTP can assist in achieving the goals of emptying tanks before 2040, and completing treatment of all tank wastes before 2047, with lower lifecycle costs and greater reliability.ⁱⁱ The Board urges the agencies to proceed promptly with this report so that the regulators and the public can evaluate whether delays are necessary and understand the impacts of delays.

On these bases, the Board believes that the Tri-Parties should not agree to significant delays in existing major TPA milestones until the proposed Hanford Lifecycle Report is issued. There is no valid reason to adopt delays in major TPA milestones without first providing critical information from the Hanford Lifecycle Report to the regulators and the public to evaluate whether delays are necessary and to understand the impacts of delays.

At the same time, the Board supports negotiations proceeding on proposals to add new milestones to achieve the goals for controlling the spread of groundwater contamination and add interim milestones to complete construction of WTP.

The Washington State Department of Ecology (Ecology) believes that the reviews of the WTP construction, costs and flow sheets provide confidence that the proposed startup date of 2019 for this plant is technically justified. However, the proposed delays for such vitally important actions as moving waste from SSTs into compliant storage have no such technical justification and merely echo DOE's budget-based plan to slow tank retrieval. Just last spring, Ecology, the Oregon Department of Energy and the Board strongly objected to DOE's plans to slow retrieval of SSTs. Nothing has changed to justify delays in retrieval.

The workshop provided to the Board on the proposals coming from DOE, the Environmental Protection Agency (EPA) and Ecology negotiations is appreciated. This resulted in the Board's understanding of the potential value of the proposed new Hanford Lifecycle Report, as well as understanding the scope of both proposed delays and new milestones. The workshop should be the launch, not the sum total of public involvement in these major TPA negotiations.ⁱⁱⁱ There is a need for extensive early public involvement, utilizing an iterative process, for public feedback to the agencies on such wide-ranging and long-lasting proposals to dramatically change the timing and scope of Hanford Cleanup.

The agencies need to include in the scope of their negotiations those issues raised by the public, Tribes and Board members for inclusion in the TPA, rather than limiting discussion. Those include provisions requiring removal, rather than capping, of wastes in soil (especially pre-1970 transuranic [TRU] and similar long-lived or highly radioactive and untreated chemical hazardous wastes); and, provisions to prevent disposal of additional off-site wastes before existing Hanford wastes are cleaned up and brought into compliance, or before the impacts from the wastes that will be left in the soil or will go into landfills, are understood.

Adopting milestones with decades of delays in emptying SSTs and other critical cleanup efforts could jeopardize funding for Hanford cleanup. Congress may view such agreements for lengthy delays as a tacit admission that the urgency claimed for these efforts was false. Stretching out the timelines for action will create a disincentive for providing funding to get the job done. There is no indication that Congress would not fund both WTP construction and emptying tanks (including the construction of new double shell tanks if new tanks are determined necessary) prior to the startup of the WTP. Congress has repeatedly demonstrated that it will fund the activities needed to meet TPA and other compliance requirements, providing funds far above the DOE's budget requests year after year. Thus, DOE's woefully inadequate "target" budgets^{iv} should be rejected as the basis for any milestone changes.

The Board presents the following advice:

Advice:

1. Any delays to major TPA cleanup milestones should be agreed to *only if* demonstrated to be *technically necessary*, with analysis of the impacts of delay on lifecycle costs and on other cleanup efforts. There should be full disclosure and consideration of the risks to the environment and to human health and safety before agreeing to any delays. There has been no technical justification provided that warrants delaying the 2018 deadline to 2040 for emptying the wastes from leaky SSTs and placing those wastes in compliant storage or treatment. Nor does the eight-year delay in operation of the WTP technically

justify delaying the completion of treating tank wastes until the year 2047, 19 years beyond the current 2028 deadline, or extension of other deadlines to 2052.

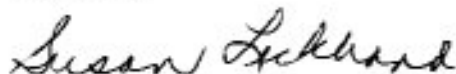
2. Negotiation of any delays to major TPA milestones should be deferred until the regulators and public have the benefit of the Hanford Lifecycle Report, to be due in September 2008, detailing the schedule on which each element of cleanup can be completed if full funding were available (“unconstrained” by DOE’s “target” budgets), and providing the lifecycle cost of completing that work.
3. Negotiations should continue to set new interim milestones for construction and operation of the WTP and new milestones to *accelerate* groundwater protection and remediation.
4. DOE’s budget “targets” and outyear plans are inadequate to meet existing TPA and compliance requirements. These inadequate funding plans must not be the basis for negotiations in regard to delaying TPA milestones, or not implementing additional critical actions to protect the Columbia River and cleanup groundwater. Technology development, assessments and corrective actions should have continued funding and accelerated schedules, including achieving cleanup of the groundwater along the Columbia River by 2018.
5. The Board advises that the agencies proceed promptly with the Hanford Lifecycle Report. In addition to informing all parties as to how fast cleanup could occur if not constrained by DOE’s budgets, the report would also allow the agencies and the public to consider the impacts of the various alternatives for treating wastes which should be in the upcoming Tank Closure and Waste Management EIS (TCWM EIS), before locking into the TPA any alternative for treatment, closure or relaxed deadlines.
6. The TPA should include additional provisions urged by the Board and public (negotiations so far have been too limited):
 - Remove and treat pre-1970 TRU and similar long-lived wastes, highly radioactive and untreated chemical wastes in soil;
 - Remove and treat wastes to the extent practicable rather than relying on caps (both for soil disposal sites and tank farms);
 - Do not add more off-site waste for disposal while existing Hanford wastes are not in compliance or cleaned up;
 - Start the first LAW plant early and increase its capacity (e.g., third melter);

- Build new tanks, if needed, to meet the 2018 requirement to have SST waste in compliant storage or treatment facilities;
 - Include milestones for cleanup of all the reprocessing canyons and PUREX Tunnels.
7. The Board supports proposals for early startup of the LAW portion of the WTP, and adding a third melter to the LAW plant. These steps can assist in achieving the goals of emptying tanks before 2040, and completing treatment of all tank wastes before 2047, with lower lifecycle costs and greater reliability. The agencies should also have an independent review of the capability of alternate glass matrix (e.g., iron-phosphate) for the WTP or second LAW facility, which may offer a more robust system capable of treating the wastes faster than the 27 to 32 years projected for DOE's current plans.
- The Board advises that the agencies commission an independent study of what alternatives can be utilized to complete treatment of tank wastes before 2047, including review of the use of alternate glass matrix.
8. The TPA should clearly reflect that LAW vitrification is the best available, and legally required, treatment technology for LAW waste in the High-Level Nuclear Mixed Waste tanks. It is inappropriate to delay construction and operation of treatment capacity for the fifty percent (50%) of LAW waste in the tanks, which the WTP is not big enough to treat. If DOE wishes to invest technology money – not Hanford cleanup funds – then it should do so knowing that the Demonstration Bulk Vitrification System (DBVS) will not be allowed to delay emptying of tanks and treating wastes using the proven LAW vitrification technology. Therefore,
- TPA milestones should require startup in 2013 of the WTP LAW plant to shorten the entire time, and lower the cost, for processing the wastes, and to assist in removing waste from leaky SSTs;
 - The TPA should include milestones to start construction in 2014 for a second LAW treatment facility to treat the fifty percent of LAW wastes which the initial plant will not treat.^v This will require milestones for design and permitting before 2014, in order for the second LAW plant to be operational in 2019.
 - Provisions relating to DBVS should be removed from the TPA. DOE's research on this expensive and unproven alternative must not be allowed to slow down, and divert funding from, proceeding with the Best Available Treatment / Land Disposal Restriction required treatment – which is a second LAW vitrification plant. DBVS is not slated to have

Available Treatment / Land Disposal Restriction required treatment – which is a second LAW vitrification plant. DBVS is not slated to have a final report on its demonstration until 2014, which would delay all other efforts to construct and operate supplemental treatment.

- The Board is concerned that the proposed deadlines for constructing and operating supplemental treatment plants by 2019 and 2021 are entirely unrealistic if decisions, designs and the start of construction are delayed to after 2014 to await testing of the DBVS.
9. The Tri-Parties should implement an iterative public involvement process for extensive proposed revisions to Hanford cleanup priorities and timelines. This should start with public meetings around the region (initially with the State-of-the-Site meetings) to have input on what should be in the TPA, not just current proposed milestones. The public involvement plan should extend to allow public review and discussion following release of the 2008 Hanford Lifecycle Report, the alternatives which should be reviewed in the TCWM EIS and other recommended reports identifying options, alternatives, impacts and risks.
10. The Hanford Lifecycle Report should include:
- assessment of early LAW startup and the addition of the third melter in the existing LAW plant to speed emptying of SSTs, the total timeline for treating all wastes, and increased reliability for the treatment facilities.
 - assessment of the schedule on which the groundwater along the Columbia River can be remediated to meet unrestricted use and drinking water standards by 2018, as urged in prior Board advice.^{vi}
11. New schedules and commitments should be readily enforceable in court.^{vii} If new delayed compliance schedules are adopted, the milestones which were not met, or will not be met, should not be eliminated from the TPA as if they never existed. Revised milestones should be identified.

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: Governor Christine Gregoire, Washington State
David Brockman, Manager, U.S. Department of Energy Richland
Operations Office
Shirley Olinger, Acting Manager, Co-Deputy Designated Federal Official,
U.S. Department of Energy, Office of River Protection
Doug Shoop, Co-Deputy Designated Federal Official, U.S. Department of
Energy, Richland Operations Office
Nick Ceto, Environmental Protection Agency
Jane Hedges, Washington State Department of Ecology
Doug Frost, U.S. Department of Energy Headquarters
The Oregon and Washington Congressional Delegations

End Notes:

ⁱ As we found in Board Advice #198 (June 2007) on the FY 2009 and outyear cleanup budgets, “the Board is deeply concerned that ‘target budgets’ approved by the Executive Office of the President, Office of Management and Budget (OMB) for Hanford cleanup funding fall drastically short of supporting the work needed to be done to meet existing compliance agreements and to adequately protect the environment.”

ⁱⁱ Completing the Hanford Lifecycle Report before negotiating further on delays to milestones would also allow the agencies and the public to consider the impacts of the various alternatives for treating wastes. This information should be in the upcoming TCWM EIS, before locking into the TPA any alternative for treatment, closure or relaxed deadlines.

ⁱⁱⁱ The Board has always asserted that the strength of the TPA derives from the expression of public values and broad consensus achieved through the public process. Board Advice #7 (1994) states in regard to the Tank Waste Task Force which advised the agencies on major revisions of the TPA when DOE sought to delay vitrification, “The process that led to the development of the current Tri-Party Agreement (TPA) and its tank waste treatment and disposal plan was the most successful public involvement process conducted at Hanford. What it did that most other processes don’t succeed at was (1) provide sound technical data to the public in a timely manner and (2) provide a forum in which the public can express its views. Far from ‘decide, announce, defend’, the Tank Waste Task Force process provided a voice for stakeholders in decision making. Local stakeholders, DOE-RL, DOE-HQ, and the regulators all played prominent roles in the development of

the TPA.” Further, “We realized that committed agencies and contractors, along with the accountability provided by a vigilant stakeholder community, was the only hope for the TPA’s provisions becoming reality.”

^{iv} “Target” budgets are formally established by OMB for the coming five years, and DOE sets longer term funding profiles for each cleanup site.

^v By starting the first LAW plant in 2013 the design, construction and commissioning of the second plant will benefit from the experience with the first plant. If the current proposal to wait until 2019 to startup the initial LAW plant is followed, then no benefit is gained for the second plant.

^{vi} The Board is pleased that the agencies did not seek to relax the 2024 TPA deadline for cleanup of all non-tank soil and groundwater sites. The Board in this advice has advised that cleanup of the River Corridor groundwater can be accomplished by 2018, and that this should be a specific goal and milestone. The Board is concerned that accomplishing the overall goal of cleaning up all non-tank farm waste and groundwater sites by 2024 cannot be accomplished without specific milestones and commitments, and that DOE’s funding targets and outyear projections do not support starting the work necessary to meet these goals.

^{vii} When the State of Washington issued a court-enforceable schedule for emptying pumpable liquids from SSTs, it was met after years of DOE failing to commit funding to the prior TPA schedule.