

An aerial photograph of a large industrial construction site. In the center, a large building is under construction, surrounded by several yellow tower cranes. To the left, there are several large white storage tanks and other industrial structures. The foreground shows a parking lot with many cars and a large green-roofed building. The background is a flat, open landscape.

Hanford Advisory Board

HAB
Annual Report 2010

Hanford Advisory Board
Independent

Creative

Collaborative

Hardworking

Well-informed

Communicative

Robust

Passionate

Involved

Balanced

Diverse

Dedicated

Inviting

Mission-oriented

Non-partisan

Policy-focused

Respectful



Hanford Advisory Board 2010

On the cover: Aerial view of the Waste Treatment and Immobilization Plant (WTP) construction site.

The Hanford Advisory Board: Mission Statement

The Hanford Advisory Board (HAB or Board) is a non-partisan and broadly representative body consisting of a balanced mix of the diverse interests affected by Hanford cleanup issues. The primary mission of the Board is to provide informed recommendations and advice to the U.S. Department of Energy (DOE), the U.S. Environmental Protection Agency (EPA), and the Washington State Department of Ecology (Ecology) on selected major policy issues related to the cleanup of the Hanford Site. The HAB strives to inform and involve the public in Hanford cleanup decisions through its open public meetings, advice on agency public involvement activities and the responsibility of Board members to communicate with their constituencies.

The Board was chartered in 1994 by DOE under the Federal Advisory Committee Act (FACA) of 1972. It is one of eight citizen advisory boards that make up the DOE Environmental Management (EM) Site-Specific Advisory Board (SSAB). The purpose of the charter and development of the Board was to provide a forum for bringing together diverse local and regional interests to tackle difficult issues associated with cleaning up the legacy of radioactive and chemical wastes left from 50 years of plutonium production.

Interests from the economic, environmental, educational, tribal, public interest, local and state government, and health and safety communities are all represented within the 31 members seated on the Board. At Board and committee meetings, members work to not only identify significant issues at Hanford deserving of public input, but to also develop meaningful advice to the agencies that will help guide cleanup at Hanford.

Over its 16-year history, the Board has developed 239 pieces of consensus advice. This 16th progress report of the HAB highlights the work accomplished in calendar year 2010 and describes issues the Board will focus on in 2011.

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At a Glance

What is the Hanford Advisory Board?

The Hanford Advisory Board IS:

- **Mission-oriented:** The primary mission of the Board is to provide informed recommendations and consensus advice to the Tri-Party Agreement (TPA) agencies on selected major policy issues related to Hanford cleanup.
- **Policy-focused:** The Board focuses on difficult policy-level issues associated with a 50-year history of plutonium production and the resulting contamination from radioactive and chemical waste.
- **Diverse:** The Board is made up of 31 members representing a variety of constituencies from local and county interests, environmental perspectives, business groups, tribal nations, public health representatives, state of Oregon officials, university professionals, public-at-large representatives, and the Hanford workforce.
- **Collaborative:** The Board operates by consensus.
- **Dedicated:** The Board has been providing consensus advice to the TPA agencies for more than 16 years.
- **Robust:** The Board maintains five standing committees – two technical committees and three cross-cutting committees – that routinely meet throughout the year to discuss issues of relevance to the site’s cleanup. See page 18 for more information.
- **Inviting:** All Board meetings are open to the public. The Board is beginning to actively reach out to different communities to increase awareness of and involvement in Hanford cleanup. More information about the Board can be found at <http://www.hanford.gov/page.cfm/hab>.



Board members Harold Heacock and Margery Swint chat during a break from the October 5 COTW meeting.



Susan Hayman facilitates a Public Involvement and Communications Committee (PIC) discussion concerning agency and stakeholder plans for outreach for the Hanford radioactive solid waste burial grounds workshops.

Chair's Message: 2010



Looking Back

What a year 2010 has been! The Hanford Site landscape is certainly showing change. HAB members toured the Hanford Site in October and saw for themselves the enormous amount of cleanup that has been accomplished with American Reinvestment and Recovery Act (ARRA) funding. Evidence of the buildings that have been demolished is demonstrated by the building number signs symbolically hanging on the perimeter fences in the 300 Area, K Area and other locations on the Hanford Site.

In addition to the regular five-Board-meetings-a-year schedule, the HAB convened an additional one day Board meeting in March focused solely on the Tank Closure and Waste Management Environmental Impact Statement (TC&WM EIS), and held four Committee of the Whole (COTW) meetings to discuss the TC&WM EIS, long-term stewardship, the Tri-Party Agreement Change Package and the 200 Area radioactive solid waste burial grounds.

Hanford Advisory Board and National Perspectives

The Hanford Advisory Board is one of eight citizen advisory boards that make up the Department of Energy Office of Environmental Management (DOE-EM, EM) Site-Specific Advisory Board (SSAB). Each of the local citizen advisory boards provide advice on cleanup issues at their respective sites, just as the HAB advises on Hanford cleanup. The twice-yearly SSAB meetings are held at one of the eight cleanup sites and offer an opportunity to share Hanford issues and successes with the other citizen advisory boards. The SSAB issues advice that is agreed to by the chairs, approved by each chairs' respective boards, and then submitted directly to EM leadership.

The SSAB meetings are attended by chairs, vice chairs, members of other citizen advisory boards, regulatory organization staff, and DOE staff. Bob Suyama, HAB vice chair, Shelley Cimon, national liaison, and I attended the SSAB meetings this year held in Oak Ridge and Santa Fe. These meetings are valuable because we hear updates and status directly from senior EM staff. In addition, we have an opportunity to participate in a question and answer session on a variety of subjects, including the EM budget, waste disposition and regulatory status. Bob, Shelley and I also attended other national meetings, participated on panel discussions, and shared what we learned during full HAB meetings. Information from national meetings serves to help HAB members understand the bigger picture of EM cleanup across the country and how Hanford fits into that picture.

Board Advice - 2010

HAB members work diligently to understand the issues and to craft advice that captures the essence of their values while honoring each

Continued on next page



Building number signs representing all buildings that have been demolished in the 300 Area.

Chair's Message: 2010

other's opinions. Dedicated issue managers from each of the committees gather information, draft advice and shepherd that advice through the HAB consensus process. It truly is a remarkable process that is successful on so many levels; educating, understanding, listening, negotiating and ultimately reaching agreement. This process resulted in the HAB issuing 14 pieces of consensus advice to the TPA agencies. All advice pieces are available at <http://www.hanford.gov/page.cfm/hab>. I urge you to visit the website to learn more about advice and activities the Hanford Advisory Board is focused on.

Looking Ahead

2011 is the final year for ARRA funding and the HAB looks forward to cleanup work that will be completed with the remaining dollars. Many buildings scheduled for demolition in the future have already come down, eliminating the costs and risks associated with maintaining them over time.

The down side to this equation is that new, highly trained Hanford workers who have performed so much good work over the three years of ARRA funding will not be funded after 2012. In order to reduce risk to human health and the environment, and to protect the Columbia River, Hanford cleanup must continue for decades into the future. Hanford needs a skilled, trained workforce to perform that work and the HAB is hopeful that some of the ARRA-funded staff and their skills can be retained for the future.

In 2011, the HAB will begin discussing and educating Board members about the tank farm closure. I expect the "tank closure" dialogue to continue through more workshops and meetings – at least for the next couple of years. Removing waste from the tanks and placing it into a more stable form for final disposal is the backbone of Hanford cleanup. I am confident that the HAB will stay engaged in this important process, in addition to the many other issues that affect the health of the workforce and the public, the groundwater and the environment at Hanford.

As always, I believe the Hanford Advisory Board is up to the challenge. Countless volunteer hours are spent by Board members focusing on important issues regarding Hanford cleanup. The public, DOE and the regulating agencies are the beneficiaries of the hundreds of years of Hanford experience that sits at the HAB table. That experience evidences itself in well-considered, values-based consensus advice that has stood the test of time. I am incredibly proud of the work and dedication of the Hanford Advisory Board and am grateful to be a part of it.



Susan Leckband, Chair
www.hanford.gov

"I always appreciate the advice and recommendations submitted by the Board. I find they are well thought out and merit serious consideration."



Dr Inés Triay,
Assistant Secretary,
DOE Office of Environmental Management (EM)

Follow Hanford Cleanup!

The HAB and TPA agencies welcome and appreciate new interest in Hanford and work hard to increase awareness about Hanford cleanup activities and decisions. New media technologies, such as Facebook, YouTube and Twitter, have revolutionized how information can be shared with the public and are just some of the creative tools the agencies are utilizing to spread the word about Hanford in a unique new way.

In addition, Board and committee meetings now utilize "GoToMeeting," an online tool that is used to display presentations and other visual material to "virtual" meeting participants, whether they are Board members, agency staff, or members of the public. Links are provided on agendas.

To follow what is happening at the Hanford Site or to view videos of on-site demolition and cleanup activities, please visit:



Workers secure a section of structural steel for the Radiological Treatment Building of the 200 West Groundwater Treatment System.



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<http://twitter.com/HanfordSite>



www.youtube.com/user/HanfordSite



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U.S. DEPARTMENT OF
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DEPARTMENT OF
ECOLOGY
State of Washington

www.ecy.wa.gov/programs/nwp/

www.ecy.wa.gov/programs/nwp/PI/pdf/TPA_PI_Calendar.pdf

2010 Accomplishments In Brief

The Board had an exceptionally busy year in 2010 – 35 committee meetings, five regular Board meetings plus a special one-day Board meeting, four COTW meetings and record 14 pieces of advice adopted. Dedicated Board members, with substantial support from agency personnel, completed a successful year marked by meaningful advice and frank discussions on challenging issues related to Hanford cleanup.

Protecting workers

The Board understands that to move forward with cleanup, workers must have a safe working environment with minimal hazards from past plutonium production. The presence of beryllium, a lightweight, durable metal used during fuel element production and in maintenance of selected industrial components and tools, resulted in potential occupational exposure to current and former employees. The Board took great interest in DOE's development and implementation of the Chronic Beryllium Disease Prevention Program (CBDPP) to minimize worker exposure to beryllium, and provided advice in 2010 (Advice #228) that reinforced and expanded its 2009 advice (Advice #217 and 218) on stemming beryllium disease at Hanford. For more information on the Board's involvement, turn to page 8.

Moving cleanup forward: Changes to the Tri-Party Agreement

As part of its significant accomplishments in 2010, the Board provided advice that contributed to landmark changes to the TPA regarding cleanup of the Central Plateau, mixed low-level waste (MLLW) and transuranic mixed (TRUM) waste, and tank waste. HAB Advice #226, approved in February 2010, addressed DOE's proposed Central Plateau Cleanup Completion Strategy (Cleanup Strategy). HAB Advice #231 in June 2010 responded to the TPA agencies' "Proposed Changes to the Tri-Party

Agreement for Central Plateau Cleanup Work" and "Proposed Tri-Party Agreement Changes for Mixed Low-Level Waste and Transuranic Mixed Waste" released for public review and comment in May 2010.

In October 2010, following years of negotiation involving the TPA agencies and the State of Oregon, a judicial consent decree regarding tank waste cleanup was filed, and associated TPA changes were finalized (the Board previously adopted Advice #224 for the proposed changes in November 2009). Also in October 2010, the TPA agencies finalized their agreements for Central Plateau cleanup, MLLW and TRUM waste. Turn to page 9 for more information on the Board's involvement in these substantial changes to the TPA.

Evaluating environmental impacts: Draft Tank Closure and Waste Management Environmental Impact Statement

The Board was deeply involved in understanding and evaluating the complexities of the Draft TC&WM EIS. This important document has considerable ramifications for the final closure of the underground tanks and handling solid wastes remaining at Hanford. The Board held a special one day Board meeting to review and adopt advice in a single day – an unprecedented feat. Outlined in Board Advice #229 Tank Closure and Waste Management Environmental Impact Statement are the Board's principal values, which include recommending DOE reissue a revised draft EIS for public review before finalizing the EIS, including the use of more transparent and consistent data modeling and characterization in the revision, and stopping the importation of off-site waste to Hanford. For further explanation of the Board's perspective on the TC&WM EIS, turn to page 13.

Advice in 2010

The Board adopted 14 pieces of advice in 2010. To read these pieces of advice and agency responses in their entirety, visit www.hanford.gov/page.cfm/hab.

ADVICE

226

Central Plateau Cleanup Completion Strategy

Date submitted: 2/5/2010

227

DOE's Use of Modeling versus More Characterization

Date submitted: 2/5/2010

228

Independent Review of Beryllium Program

Date submitted: 2/5/2010

229

Tank Closure and Waste Management EIS

Date submitted: 3/4/2010

230

Hanford Long-Term Stewardship Program Plan

Date submitted: 4/9/2010

231

Proposed Changes to the Tri-Party Agreement for Central Plateau Cleanup Work, and for Mixed Low-Level Waste and Transuranic Mixed Waste

Date submitted: 6/4/2010

232

Selecting Projects for Additional American Recovery and Reinvestment Act Funding

Date submitted: 6/4/2010

233

Tank Waste System Plan Revision 4 and Planning Assumptions for Revision 5

Date submitted: 6/4/2010

234

Fiscal Year 2012 Budget Requests

Date submitted: 6/4/2010

235

Openness of the DOE Environmental Management Advisory Board Subcommittee Meetings

Date submitted: 9/10/2010

236

Integrated 100 Area Remedial Investigation/Feasibility Study Work Plan

Date submitted: 11/5/2010

237

Engineering Evaluation/Cost Analysis for 105-KE Reactor Decommissioning

Date submitted: 11/5/2010

238

System Planning Process

Date submitted: 11/5/2010

239

Incorporating Public Involvement Strategic Planning into the Community Relations Plan

Date submitted: 11/5/2010

What's Next? Board Work in 2011

Key cleanup issues and decisions in the coming year requiring careful examination of actions will keep the Board at a heightened pace of work in 2011. This pace will be even more accelerated as TPA agencies complete work ahead of ARRA funding expiration at the end of September. The Board's work in 2011 will focus on the following priority areas:

- Long-term stewardship and institutional control costs informing cleanup and final Records of Decision (RODs)
- Regulatory documentation process for developing six RODs for the River Corridor, including the River Corridor Baseline Risk Assessment
- 200 and 300 Area Remedial Investigation/ Feasibility Study (RI/FS) processes and related documents leading to final RODs
- Hanford site-wide permit, issued under the Resource Conservation Recovery Act (RCRA)
- Waste Management Area (including Tank Farms) cleanup, including site closure and related strategic public engagement concepts
- Strategic public involvement
- Beryllium program implementation, and
- Current and out-year budget requests

The Board will closely monitor any potential budget shortfalls for ARRA project work scope, as well as encourage the TPA agencies to request full funding for out-year budgets. Of growing importance in the coming years is the closure of Waste Management Areas (including Tank Farms) and system planning for retrieving and processing tank waste to be sent to the Waste Treatment and Immobilization Plant (Waste Treatment Plant, WTP). The Board will engage in conversations with the TPA agencies for understanding this process

and provide recommendations as necessary. Opportunities for collaborative and strategic public involvement remain essential to the safe and effective cleanup of the site. Board members will do their part in networking with their constituencies, and assisting the agencies with effective outreach materials and techniques.

We want to hear from you.

Share your thoughts on Hanford cleanup at a HAB meeting.

2011

Board meeting schedule

February 10-11 ■ Richland, Washington

March 31-April 1 ■ Portland, Oregon

June 2-3 ■ Richland, Washington

September 8-9 ■ Seattle, Washington

November 3-4 ■ Richland, Washington

For specific meeting locations and agendas, visit www.hanford.gov.

Hanford Accomplishments in 2010

Chronic Beryllium Disease Prevention Program

The Board took great interest in DOE's development and implementation of the Chronic Beryllium Disease Prevention Program (CBDPP) to minimize worker exposure to beryllium. Several Board members were involved extensively in discussions with DOE project staff and managers and the independent inspection team tasked to take an in-depth look at Hanford's beryllium situation. These Board members had the opportunity to express their opinions on topics ranging from who should complete the inspection to how they should do it in order to support a robust review of the program.

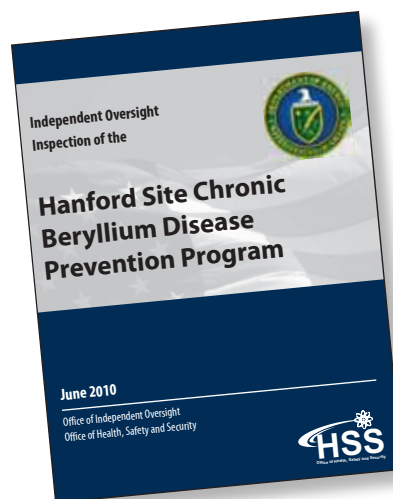
The Board emphasized importance on implementing prior recommendations and commitments from two independent reviews of the site's beryllium programs in Advice #228, which provided policy recommendations on the independent review of the beryllium program. In addition, the Board noted its understanding that DOE promised affected beryllium workers an independent review of the beryllium program, and to participate in the selection of the review team. The Board advised DOE to employ a review team of well-credentialed individuals independent of DOE and preferably having a prior understanding of Hanford's beryllium history and affected workforce.

With the Board's encouragement in Advice #228, and at the request of DOE Assistant Secretary for Environmental Management, Dr. Inés Triay, DOE's Office of Health, Safety and Security (HSS) completed the inspection on the Hanford Site in early June. The team evaluated current practices for protecting workers against beryllium hazards, and assessed the beryllium medical surveillance programs at the site. While the team found

Hanford's new, coordinated site-wide program to be an improvement, they also noted the program could have been implemented more quickly.

The HSS team also documented other program weaknesses in the ongoing effort to identify potential sources of exposure from legacy operations, and in the analysis of newly-identified cases of sensitization (chronic beryllium disease). These weaknesses include a need to identify workers at risk for exposure, provide workers with an understanding of beryllium health risks, and identify actions to improve the CBDPP. In addition, the HSS team identified a need to improve communications throughout the site and with stakeholder groups regarding the beryllium program. Correction of these weaknesses, the report found, will be essential in providing the foundation for a sound program.

This review ultimately resulted in development of an integrated Corrective Action Plan (CAP) approved by the Beryllium Awareness Group (BAG), the President of Hanford Atomic Metal Trades



An independent inspection was conducted by DOE-HSS in response to concerns regarding the adequacy of implementation of the Hanford Site CBDPP. Findings of the inspection were published in this report in June 2010.

Hanford Accomplishments

Council (HAMTC), and the Managers of DOE-ORP and DOE-RL. DOE-EM approved the CAP with HSS concurrence on September 17, 2010. In their response to HAB Advice #228, DOE stated that “implementing the CAP for the CBDPP is a primary focus of RL and ORP, and we ask for your continued support improving the site’s CBDPP. ”

To keep with its commitment to transparency and inclusion, DOE routinely gives a program update at each HAB Health, Safety and Environmental Protection Committee meeting, and also provided an in-depth presentation to the full Board in November. Progress to date includes completion of 69 of 239 discreet actions in the CAP; 67 of the

69 actions have closed on schedule, with closure expected soon on the remaining two. DOE will continue to manage the CAP implementation as a project with assistance from Mission Support Alliance, and schedule performance will be the primary metric. DOE will also employ a quality assurance lead to oversee the implementation of the CAP for both DOE-RL and DOE-ORP operations. The Board supports DOE’s heightened involvement and direction to safeguard employees as cleanup continues on the Hanford Site. However, the critical importance of this program’s success and the threat of more affected beryllium workers will keep it a high priority for the Board.

Major Changes to the Tri-Party Agreement in 2010

Landmark decisions regarding cleanup of the Central Plateau, mixed low-level waste (MLLW) and transuranic mixed (TRUM) waste, and tank waste were reached in 2010. Decisions regarding Central Plateau cleanup, MLLW and TRUM waste resulted from TPA agency negotiations initiated in the fall of 2009. Decisions regarding tank waste came from years of negotiation among the TPA agencies, and included a judicial consent decree.

Central Plateau Cleanup Completion Strategy

The Central Plateau covers approximately 75 square miles in the middle of the Hanford Site. The legacy waste and contaminated materials from the site’s defense mission remain on the Central Plateau in facilities, underground tanks, waste sites, and structures.

The Board actively followed DOE’s development of an approach for cleanup of the Central Plateau, as described in the 2009 Hanford Advisory Board Annual Report. DOE involved the Board early and

often in this development, including presentation of DOE’s initial strategy at HAB River and Plateau Committee meetings, and for the full Board at the June 2009 meeting. Once the TPA Change Package was released for public review and comment in September 2009, the Board convened a COTW workshop on this topic in October 2009 and followed that with a sounding board on the proposed changes at the November 2009 Board meeting.

In February 2010, the Board adopted Advice #226, Central Plateau Cleanup Completion Strategy. The Board advised DOE-RL to 1) undertake a cumulative effects analysis of all cleanup decisions; 2) increase the number of decision units; 3) address the deep vadose zone more comprehensively and create a separate ROD for each vadose zone under the 200-West and 200-East areas; 3) reconsider capping of waste sites adjacent to canyon facilities except under special circumstances; 4) more fully characterize burial ground sites and adopt a “retrieve, treat and dispose if possible” attitude; 5) add exposure

Hanford Accomplishments

"The HAB provided very meaningful feedback on DOE's Central Plateau Cleanup Strategy. More importantly, the feedback was helpful in developing and negotiating changes to the TPA regarding Central Plateau cleanup. This was especially true for answering the questions of how many decision documents there should be and how to organize operable units based on geography."



Craig Cameron,
Project Manager,
EPA

scenarios and remediate based on protecting the most sensitive populations at a standard that protects these populations in the face of failing institutional controls; 6) continue monitoring unlined trenches and cribs, including characterization and post-closure monitoring, and 7) complete its updated Long-Term Stewardship Plan.

TPA Change Packages for the Central Plateau and for Mixed Low-Level Waste and Transuranic Mixed Waste

In May 2010, the TPA agencies proposed two TPA change packages. The first change package, Proposed Changes to the Tri-Party Agreement for Central Plateau Cleanup Work included 1) milestones to integrate cleanup of Central Plateau soils, facilities and groundwater; 2) new milestones to address cleanup of the deep vadose zone; and 3) a comprehensive, geographic approach for Central Plateau cleanup.

The second package, Proposed Tri-Party Agreement Changes for Mixed Low-Level Waste and Transuranic Mixed Waste included changes in milestones (cleanup schedules) for the retrieval, storage, shipment, and treatment/processing of MLLW and TRUM waste. These changes set a deadline of 2035 to treat or remove this waste from Hanford. Upon completion of the milestones, all retrievably-stored waste would be removed

from the burial grounds, the backlog of MLLW and TRUM waste would be eliminated, and TRUM waste would be shipped off site.

In June 2010, the Board adopted Advice #231, Proposed Changes to the Tri-Party Agreement for Central Plateau Cleanup Work, and for Mixed Low-Level Waste and Transuranic Mixed Waste. This advice addressed milestone dates, technology and waste shipment schedules to the Waste Isolation Pilot Plan (WIPP), establishing a separate vadose zone operable unit, modifying the Hanford Site-wide Permit to ensure consistency with the TPA changes, authorship of RODs, and methods to increase the transparency and clarity of proposals for the public.



The Board facilitator, Board chair and agency representatives participating in a full Board meeting in September.

Hanford Accomplishments

The TPA agencies considered input from the public, tribal nations, the State of Oregon, the Hanford Advisory Board, and other stakeholders on the proposed changes before they were finalized.

In October 2010, the TPA agencies signed agreements including the following key changes to the TPA:

- Integrate soil, water and facility cleanup milestones
- Add milestones to identify technologies for characterization, treatment and monitoring of contamination within the deep vadose zone
- Align the regulatory process with a geographic approach to cleanup, by consolidating cleanup areas (i.e. operable units) and adding milestones to coordinate and complete cleanup of large facilities and adjacent waste sites

Specifically:

- 23 existing cleanup areas (operable units) were consolidated into 10 areas, and 3 new cleanup areas (operable units) were created for large chemical processing plants
- 29 new milestones were created, including first-ever milestones for cleanup of contamination deep in the soil (deep vadose zone)

- 5 existing milestones were modified
- 5 existing milestones were deleted, with 4 consolidated in the new milestones and 1 redundant milestone deleted

The Board's advice positively influenced the outcome of the TPA changes. Two changes particularly influenced by the Board were: 1) the assurance that EPA will continue to write draft RODs when they are the lead regulatory agency and that RODs will be written jointly by EPA and Ecology if Ecology is the lead regulatory agency. The lead regulatory agency, in cooperation with DOE (and EPA if Ecology is the lead regulatory agency), will finalize the ROD; and 2) milestones for processing and shipping TRUM waste off-site will be consistent with the expected closure date of 2030 for the Waste Isolation Pilot Plant.



Board members Doug Mercer and Dick Smith talk one on one with agency representatives Matt McCormick (DOE-RL) and JD Dowell (DOE-ORP).

“We received some really valuable input from HAB members and the public on these TPA changes. Ecology appreciates the Board’s focused involvement in the discussions, and the improvements their comments made in the final product.”



Jane Hedges,
Nuclear Waste Program Manager,
Ecology

Hanford Accomplishments

“We now have the full commitment of the federal government, and an enforceable federal court order, to ensure that the Hanford cleanup will stay on track. In reaching this agreement with our state, President Obama and Energy Secretary Steven Chu have shown that our federal government can and will live up to the commitments that were made in 1989 to clean up the toxic and radioactive legacy of America’s Cold War nuclear weapons program. This is good news for our state and region – and for the Columbia River and all who depend on it.”



Washington Governor Chris Gregoire

TPA Changes and Judicial Consent Decree – Tank Waste

Hanford currently stores over 53 million gallons of radioactive and chemical waste in 177 underground tanks at the site. The Waste Treatment Plant is being designed and built to immobilize the tank waste in a glass form in a process called vitrification.

The consent decree culminated several years of negotiations by the agencies. It was part of the settlement of a lawsuit that Ecology filed against DOE, and the state of Oregon later joined, to compel completion of key aspects of tank waste

cleanup at Hanford. Proposals for milestones that would be addressed in a consent decree and in subsequent changes to the TPA were proposed in October 2009 for public review and comment. HAB Advice #224 addressed these proposals (see the 2009 Hanford Advisory Board Annual Report for more on this topic).

Key points of the agreements finalized in October 2010 include:

- Pacing milestones to keep construction of the WTP on schedule
- Completion of the retrieval of single-shell tanks in Hanford’s C Farm in 2014
- Treatment of tank waste beginning in 2019 with full operations in 2022
- Completing the retrieval of all single-shell tanks in 2040
- Completing the treatment of tank waste in 2047
- Closing the double-shell tank farms in 2052



Construction of the Waste Treatment Plant at Hanford in December 2010.

HAB Focus

Tank Closure and Waste Management EIS

During the first few months of the year, the Board was heavily involved in deciphering the complex and voluminous Draft TC&WM EIS. The intent of the document is to provide an analysis of preferred alternatives for:

- Retrieving and managing tank waste and closure of the single-shell tanks
- Decommissioning the Fast Flux Test Facility (FFTF) and its auxiliary facilities, and
- Continued and expanded solid waste management operations on site

The analysis of these alternatives will inform DOE's final decision to close the 177 underground tanks and manage solid waste on the Hanford Site. This final decision will have immense financial and technical ramifications on future cleanup decisions at Hanford.

The Board understood the immense importance of providing sound advice on their values for tank waste cleanup and closure to the TPA agencies. Due to the large volume and extreme technicality, the Board procured the assistance of a technical expert to provide an independent review of the proposed remediation alternatives with an eye toward transparency and how the alternatives did

or did not reflect prior Board advice relevant to the draft EIS. The Board held a COTW meeting to hear the initial presentation of the contractor's results to assist Board members in developing advice. Later, the Board held a special meeting in which Advice #229 was discussed and adopted in the same day - an unprecedented occurrence for the Board, yet achievable due to the tenacity and dedication of Board members and supporting agency representatives.



An 85-ton shield door built for the WTP Pretreatment Facility is transported for installation.

“The EPA appreciates and commends the HAB for hiring expert reviews for the TC&WM EIS. This was a huge document with extensive technical content underlying high level policy making conclusions. Technical expert review is an ideal way to support HAB policy advice to the Tri-Parties.”



Larry Gadbois,
Project Manager,
EPA

HAB Focus

“The Office of River Protection values the Board’s continued interest and willingness to share insights on the Hanford tank farm cleanup mission. This year the HAB evaluated and provided input on major elements of the mission, including tank waste retrieval, and tank farm closure and system planning. We believe that in many cases, the Board’s input has shown to be consistent with our priorities.”



Jonathan A. Dowell,
Acting Manager,
DOE-ORP

The primary focus of the Board’s comments was that the draft EIS did not support in total the package of options contained in any of the alternatives. As such, the Board advised DOE to revise and reissue a draft EIS for public review and comment prior to finalizing the current draft EIS. In this draft, the Board encouraged DOE to consult and implement advice recommendations as provided in the following categories (text below does not reflect all the policy points in the advice).

- **Tanks** – analyze tank waste composition and additional capacity for retrieval, and further characterization of tank waste leaks and threat to groundwater and soil
- **Waste Management** – opposes importation of off-site low-level waste and mixed waste
- **Groundwater** – develop a preferred alternative to restore groundwater to its highest beneficial use
- **Waste importation** – adopt a ROD that DOE will not add more off-site waste to Hanford
- **Retrieval/capping** – reduce cumulative impacts of contaminated waste and evaluate the need for further characterization prior to capping

- **Chemical inventory** – include documentation of all hazardous chemical constituents and chemical inventories from all disposal sites
- **Modeling** – employ transparent modeling to enable the reader to understand the output/input process controls and modeling uncertainties
- **Applicable law** – evaluate stronger federal and state cleanup standards to address preferred alternatives for contaminated soil and groundwater
- **Public involvement** – allow an opportunity for the public to comment on a revised draft EIS that has a clear description of the long-term impacts and benefits from preferred alternatives

The Board and, in particular, the Tank Waste Committee (TWC) will continue to monitor the direction and development of the draft TC&WM EIS after DOE has reviewed all of the public comments, paying close attention to their identified policy issues.

Other Board Activities and Products

While work on the Draft TC&WM EIS, the beryllium program, the TPA Change Packages and consent decree captured the spotlight in 2010, the Board engaged in a great deal of other important work. This work, in many cases, laid the foundation for efforts that will continue into 2011. Highlights include:

Public Involvement Strategic Planning.

Throughout 2010, the Board's Public Involvement and Communications Committee (PIC) engaged in a substantial collaborative process with agency public involvement staff to define successful public involvement, identify the key elements that make public involvement successful, and the elements and challenges unique to Hanford public involvement. The Board issued their first piece of advice from this body of work in November, directed at the anticipated update of the TPA Community Relations Plan (the Board previously offered Advice #225 for the Community Relations Plan in 2009).

The Board believes that meaningful public involvement is critical to the successful cleanup of Hanford. The ways in which the TPA agencies inform, involve, and encourage the public to participate help determine the quality of that participation. Additional advice for a robust public involvement strategic planning process is expected in 2011.

Radioactive Solid Waste Burial Grounds. In October, the Board convened a COTW workshop on Hanford's radioactive solid waste burial grounds (SWBG). The workshop fulfilled a commitment by DOE-RL to begin an early dialogue with the Board as they work toward preparation of the RI/FS Work Plan in 2011. This inaugural workshop utilized a combination of presentations and poster sessions to describe the physical setting, operational history, burial information, characterization results, environmental monitoring, public involvement and regulatory decision processes related to these burial grounds. Public workshops in Seattle, Hood River and Portland followed later in October. The Board is expected to develop advice for the March/April 2011 Board meeting, based on the COTW and public workshops.



Attendees at the October 5 COTW review a map demonstrating current ground water monitoring in the 200 West Area.

“The PIC has shown remarkable commitment to developing a better understanding of successful public involvement at Hanford. We appreciate the work the PIC has put into the strategic planning conversation.”



Dennis Faulk,

Program Manager Hanford Project Office,
EPA

Other Board Activities and Products

“The Committee of the Whole workshop on October 5 was a good start in the discussions of what to do with Hanford’s solid waste burial grounds. We got some great feedback there and also at our meetings in Hood River, Portland and Seattle. We look forward to keeping these conversations going as we make decisions about the work plan.”



Jane Hedges,
Nuclear Waste Program Manager,
Ecology

Long-term Stewardship. The Board convened a COTW workshop in March to begin working with DOE-RL in their development of the Long-Term Stewardship (LTS) Program Plan (Plan). The Board reviewed and discussed DOE-RL’s draft LTS Plan, including how and where the draft LTS Plan addresses LTS concerns identified by the Board, including:

- The handoff between DOE-RL and the Office of Legacy Management
- The assumption of federal ownership for the foreseeable future
- The need for DOE to estimate and fund the future costs of LTS
- The need to monitor and maintain controls (physical and administrative) to ensure remedies remain protective for the long-term
- The need to preserve and maintain information for the long-term (so that people in the future will “know it’s there”)



Progress continued at N Reactor in August 2010 to put the building into interim safe storage.

Other Board Activities and Products

Hanford Site Tour. Also in October, Board members were hosted by DOE on a comprehensive site tour that included stops at 300 Area, 100-N, 100-KE, 200 Area low-level waste disposal grounds/Waste Receiving and Processing Facility, the Environmental Restoration Disposal Facility (ERDF), U-Canyon, and a remarkable tour of the Plutonium Finishing Plant (PFP). The tour included drive-bys of 618-10 and 11, double-shell tank farms, and the WTP. For first-timers

to the site, the tour was an astounding opportunity to see the facilities and cleanup of great significance to the Board and agencies alike. For seasoned Board members, seeing all of the metal-signed numbers of demolished buildings hanging like trophies on the 300 Area perimeter fence was a poignant reminder of the magnitude of cleanup activities to date, and how the face of the site is rapidly changing.



HAB members, TPA agency representatives, contractors, and members of the facilitation team pose for a photo in front of U Plant, one of Hanford's plutonium processing canyons.

“We were pleased to be able to show Board members first-hand the tremendous amount of cleanup work accomplished all over the site - from the River Corridor to the Central Plateau. The Board has provided input and advice on several of these cleanup projects. It was a great opportunity for them to witness the recent progress resulting in part from American Recovery and Reinvestment Act funding.”



Nick Ceto,
Record of Decision Manager
DOE-RL

Committees of the Board

The Board is composed of five committees that typically meet or hold conference calls monthly. The majority of the Board's work takes place at the committee level where members work on complex technical and policy issues concerning cleanup at Hanford and develop advice principles for consideration at Board meetings. The committees develop draft advice by consensus. Once advice has committee consensus, that committee brings it before the full Board for consideration.

The Board's two technical committees responsible for understanding and tracking current and planned cleanup work are the River and Plateau Committee (RAP) and the Tank Waste Committee (TWC). The three other committees work on cross-cutting issues and are tasked with tracking broader, site-wide issues. These are the Public Involvement and Communications Committee (PIC), Budgets and Contracts Committee (BCC) and Health, Safety and Environmental Protection Committee (HSEP). The Board chair and vice chair, and committee chairs and vice chairs convene as the Executive Issues Committee (EIC) to address leadership issues.

Committees prioritize issues they wish to explore and navigate these topics through collaborative discussions with committee members, TPA agency representatives and contractors. Within a committee, individuals self-identify as "issue managers" when they have a strong interest or expertise in a particular cleanup issue and wish to work with the TPA agencies and committee leadership to research and frame topics for committee discussions. Issue managers act on behalf of the committee and typically take the lead on advice development.

For large, comprehensive issues that stretch beyond the scope of any one standing committee,

members may convene as a Committee of the Whole (COTW). COTW meetings allow for increased participation and collaboration on topics that are relevant to multiple committees. The COTW met four times in 2010 to discuss the TC&WM EIS, the LTS Program Plan, draft TPA Change Packages and the solid waste burial grounds.



Attendees participated in a COTW meeting on October 5 to learn more about Hanford's radioactive solid waste burial grounds.

Tank Waste Committee

TWC tracks technical issues related to tank waste storage and retrieval, treatment and disposal, and WTP. In 2010, TWC focused on:

- Review of supplemental waste treatment technologies and secondary waste
- Design and construction of WTP
- Commenting on the system plan and draft TC&WM EIS

Committees of the Board

- Tank waste retrieval technologies
- Waste Management Area – C Performance Assessment
- 242-A Evaporator

The committee sponsored two pieces of advice: Advice #233 concerning the Tank Waste System Plan Revision 4 and Planning Assumptions for Revision 5, and Advice #238 concerning the System Planning Process.



Board members Mike Korenko and Maynard Plahuta converse during a COTW solid waste burial ground poster session.

River and Plateau Committee

RAP considers issues related to contaminated areas along the Columbia River, institutional controls, waste importation, Central Plateau facilities and burial grounds, and groundwater contamination and remediation. RAP tracked the following issues in 2010:

- Central Plateau Cleanup Completion Strategy
- RI/FS work plans for the 100 and 300 Areas
- LTS and use of institutional controls

- Deep vadose zone – treatability tests and technology
- Non-Radioactive Dangerous Waste Landfill (NRDWL)
- Solid waste burial grounds
- Preparation for reissuance of the Hanford Site-wide Permit
- Removal of the K-East reactor

RAP was by far the most active committee in 2010. The committee developed and brought six pieces of advice before the Board for adoption.

Health, Safety and Environmental Protection Committee

HSEP considers how cleanup activities and DOE and contractor operations impact public health, worker safety and the environment. In 2010, the committee worked on the following topics:

- Tank vapors
- Hanford Site infrastructure including site traffic
- Worker safety programs at Hanford
- Contract safety incentivization
- Beryllium
- Hanford Site Biological Controls Program

HSEP sponsored Advice #228 concerning independent review of the Hanford beryllium program. The committee was committed to improving how the beryllium issue is addressed on site.

Committees of the Board

Public Involvement and Communications Committee

PIC focuses on ensuring meaningful opportunities for the public to participate in Hanford cleanup decisions. The committee provides input and develops advice on the appropriate approach and format for public outreach and involvement activities, as well as long-range strategic public involvement planning efforts, documents and schedules. The committee also coaches Board members to meet their commitment to inform and seek feedback from their constituencies. In 2010, PIC focused on:

- Public involvement strategic planning processes
- New public involvement tools and techniques
- Improvement of public involvement opportunities for the Draft TC&WM EIS, radioactive solid waste burial grounds public workshops and State of the Site meetings
- Revisions to the TPA Community Relations Plan (CRP)

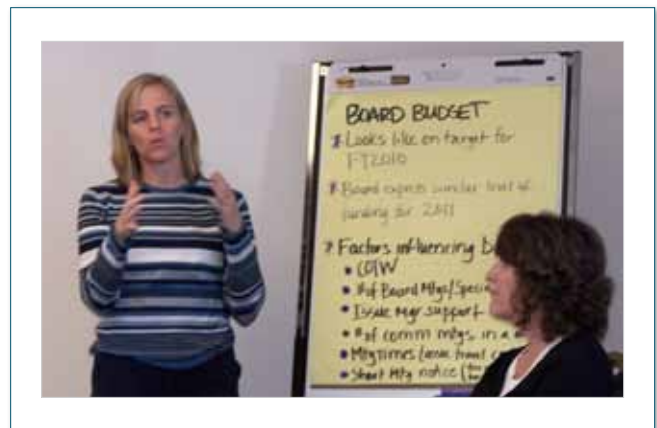
PIC sponsored two pieces of advice in 2010 regarding the openness of the DOE Environmental Management Advisory Board Subcommittee meetings (Advice #235) and incorporating public involvement strategic planning into the TPA CRP (Advice #239).

Budgets and Contracts Committee

BCC reviews and monitors the state of Hanford funding, focusing on DOE budgets, expenditures, requests for proposals and contracts. In 2010, BCC focused on:

- Use of ARRA, or stimulus, funding
- Development of DOE's Lifecycle Scope, Schedule and Cost Report
- TPA modifications to Tank Waste Treatment and the proposed consent decree
- Fiscal Year 2012 Budget Requests
- Site-wide review of contracts and contract fee provisions

The committee developed and brought two pieces of budget advice before the Board for adoption.



Board facilitator Cathy McCague facilitates a budget discussion at the May 2010 leadership retreat.

“The Public Involvement and Communications Committee continues to provide valuable input to the agencies on engaging the public in Hanford issues. From the burial grounds to tank farm closure to State of the Site, the committee is full of ideas and energy on ways to connect with a wide range of people.”

“”
Jane Hedges,
Nuclear Waste Program Manager,
Ecology

Board and Committee Leadership

The Board is led by a leadership team composed of the Board chair and vice chair, national liaison and committee chairs and vice chairs. A leadership retreat is held each spring to review the previous year's work and outline priorities for the upcoming year. Due to the leadership's decision in 2009 to change the timing of leadership transitions, 2010 was the first year all new Board and committee chairs and vice chairs had the opportunity to attend the retreat and assist in planning priorities and setting goals for 2011.

As in previous years, the Board leadership worked hard in 2010 to maximize its effectiveness, establishing cleanup priorities early on and diligently tracking those priorities to ensure they are being addressed. ARRA funding also continued to provide additional support to the cleanup effort at Hanford in 2010 and enabled Board members to successfully tackle heavy workloads, producing over a dozen pieces of timely advice from a wide range of cleanup topics.



Board members Gerald Pollet, Floyd Hodges and Larry Lockrem.

A new feature introduced at this year's leadership retreat was the "Board report card" that tracks activities by Board and/or agency priority. A six-month assessment occurred at the leadership retreat, with a final accounting and presentation of results to the agencies at the September Board meeting. This will be an ongoing tool for monitoring Board accomplishments.

National involvement

In 2010, the Board continued its active participation in the U.S. DOE Environmental Management (EM) Site-Specific Advisory Board (SSAB), composed of DOE cleanup site advisory board chairs and vice chairs. The EM-SSAB typically meets twice a year and holds bi-monthly conference calls. This year members met at the DOE Oak Ridge Reservation in Tennessee in April, and the Los Alamos National Laboratory in Santa Fe, New Mexico in September.

In 2010, the EM-SSAB issued two letters to DOE-EM, one regarding recommendations on base program budgets for 2012 and beyond and the other concerning the inclusion of option periods in the language of all future DOE Request for Proposals for prime contracts. Due to its longevity, absence of term limits and level of institutional knowledge, the Hanford Advisory Board is seen as a unique and valuable asset to the EM-SSAB.

This year, the Board's national liaison attended the Intergovernmental Meeting with DOE in San Diego, California. The meeting focused on a number of topics including EM budget and planning, an update on ARRA funding, DOE's waste disposition strategy, future use of EM sites, and natural resource damages. More than 100 state, local and tribal officials, including Washington and Oregon Governors-elect, participated in the meeting.

Board and Committee Leadership

Current Board and committee leadership

**Indicates former Vice Chair transitioned in 2010*

Board leadership

Chair: Susan Leckband

Vice Chair: Bob Suyama

National liaison

Shelley Cimon

Committee leadership

Budgets and Contracts Committee

Chair: Gerry Pollet

Vice Chair: Harold Heacock

Public Involvement and Communications Committee

Chair: Steve Hudson

Vice Chair: Liz Mattson, *Ken Niles

Tank Waste Committee

Chair: Dirk Dunning, *Larry Lockrem

Vice Chair: Larry Lockrem, *Rob Davis

Health, Safety and Environmental Protection Committee

Chair: Keith Smith

Vice Chair: Mike Korenko

River and Plateau Committee

Chair: Pam Larsen

Vice Chair: Dale Engstrom, *Maynard Plahuta



Board and committee leadership identify HAB priorities for 2011 at the May leadership retreat in 2010.

Hanford Advisory Board Membership

Current HAB Members and Alternates as of December 2010

Organization/Group	Primary Member	Alternate
LOCAL GOVERNMENT INTERESTS (7)		
Benton County	Maynard Plahuta	Kenneth Gasper
Benton-Franklin Council of Governments	Rick Jansons	Art Tackett Gwen Luper
City of Kennewick	Bob Parks	Dick Smith
City of Pasco	Robert Davis	Joe Jackson
City of Richland	Pam Larsen	Vince Panesko
City of West Richland	Jerry Peltier	Julie Jones
Grant & Franklin Counties	Richard Leitz	Bob Adler
LOCAL BUSINESS INTERESTS (1)		
Tri-Cities Industrial Development Council	Harold Heacock	Gary Petersen
HANFORD WORK FORCE (5)		
Central Washington Building Trades Council	David Davis	BC Smith
Hanford Atomic Metal Trades Council	Becky Holland	David Molnaa
"Non-Union, Non-Management" Employees (2)	Jeffrey Luke Vacant	Laura Hanses Vacant
Hanford Challenge	Tom Carpenter	Allyn Boldt Liz Mattson
LOCAL ENVIRONMENTAL INTERESTS (1)		
Richland Rod & Gun Club	Gene Van Liew	Paul Kison

Hanford Advisory Board Membership

Organization/Group	Primary Member	Alternate
REGIONAL CITIZEN, ENVIRONMENTAL & PUBLIC INTEREST ORGANIZATIONS (5)		
Columbia Riverkeeper	Dan Serres	Steve White
Hanford Watch	Paige Knight	Steve Hudson Robin Klein
Heart of America Northwest	Gerald Pollet	Helen Wheatley Amber Waldref
Washington League of Women Voters	Susan Leckband	Betty Tabbutt
Citizens for a Clean Eastern Washington	Todd Martin	Phil Brick Dr. Floyd Hodges Dr. Mark Beck Dr. Susan Babilon Cindy Meyer
LOCAL AND REGIONAL PUBLIC HEALTH (2)		
Benton-Franklin Public Health	Dr. Margery Swint	Dr. Gerry Dagle Dr. Tony James
Physicians for Social Responsibility	Dr. Howard Putter	Karen Bowman
TRIBAL GOVERNMENT (2)		
Nez Perce Tribe	Gabriel Bohnee	John Stanfill Sandra Lilligren Kristie Baptiste- Eke Stan Sobczyk
Yakama Nation	Russell Jim	Wade Riggsbee David Rowland Jean Vanni John Beckstrom

Hanford Advisory Board Membership

Organization/Group	Primary Member	Alternate
STATE OF OREGON (2)		
Oregon Hanford Cleanup Board	Lyle Smith	Maxine Hines Wayne Lei Robert McFarlane Mecal Samkow
Oregon Department of Energy	Ken Niles	Dirk Dunning Paul Shaffer Dale Engstrom
UNIVERSITY (2)		
University of Washington	Doug Mercer	Mark Oberle
Washington State University	Vacant	Emmett Moore
PUBLIC AT LARGE (4)		
	Norma Jean Germond	Vacant
	Keith Smith	George Jansen, Jr. Shelley Cimon
	Bob Parazin	Samuel Dechter
	Bob Suyama	Mike Korenko
LIAISON REPRESENTATIVES		
Confederated Tribes of the Umatilla Indian Reservation	Vacant	Vacant
Washington State Department of Health	Earl Fordham	Mike Priddy John Martell
U.S. Department of Energy-RL	Matt McCormick	Paula Call
U.S. Department of Energy-ORP	Jonathan Dowell	Pamela McCann
U.S. Environmental Protection Agency	Dennis Faulk	Emy Laija
Washington State Department of Ecology	Jane Hedges	Dieter Bohrmann

Hanford Advisory Board Membership

New HAB Members and Alternates

Name	Seat	Appointment Date
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Dave Davis	Central Washington Building & Construction Trades Council	July 8, 2010
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Dave began his career in the electrical industry as an apprentice wireman through the International Brotherhood of Electrical Workers (IBEW) Local Union 112, and graduated from the four-year program in 1980 as a Journeyman Wireman. Dave has experience working on nuclear plants, coal-fired plants and co-generation plants, as well as other commercial projects. In 1990 and 1993, Dave was elected to serve on the Executive Board of IBEW Local 112, and is currently a Business Representative and organizer for IBEW Local Union 112. Dave also currently serves as the President of the Central Washington Building & Construction Trades Council, and vice president of the Pendleton Building & Construction Trades Council.

Jean Vanni	Yakama Nation	September 17, 2010
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Jean represents the Yakama Nation Tribal Environmental Restoration and Waste Management (ERWM) Program as an alternate on the River and Plateau and Public Involvement and Communication Committees. Jean comes to the Yakama Nation ERWM Program with a Master's Degree in Environmental Science. Prior to working for the Yakama Nation, Jean worked for the Washington State Department of Ecology for 10 years as a permit writer for the Waste Treatment Plan and various Hanford facilities. She has also held other technical and analytical positions.

Lyle Smith	Oregon Hanford Cleanup Board	August 17, 2010
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Lyle has been a dialysis nurse for over 28 years and is presently working as a dialysis nurse at Two Rivers Correctional Institution. Lyle has been a member of the Oregon Hanford Cleanup Board for the past two years and was recently elected to a seat on the Umatilla City Council. Lyle received his degree in Environmental Science from Governor's State University in Illinois, and has volunteered with numerous environmental organizations, including the Sierra Club and Cleanup Rocky Flats.

William (BC) Smith	Central Washington Building & Construction Trades Council	July 8, 2010
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BC Smith currently serves as the vice president of the Central Washington Building & Construction Trades Council, and as Business Manager for the Operative Plasterer's and Cement Masons Local #478. BC has been a Building Trades member for sixteen years and has worked at the Hanford Site as a Cement Mason. BC has a great desire to be part of the cleanup solution and to help empower the Building Trades members to perform work safely, and within budget and schedule.

Members or Alternates who left the Board in 2010

Ken Gasper

Donna Noski

Mike Keizer

Greg deBruler

Steve Roney

Barry Beyeler

Debra McBaugh



The full Board typically meets five times a year. Location of the meeting typically varies between Richland, WA; Seattle, WA; and Portland, OR.



Laura Hanses, Lyle Smith and Maynard Plahuta review draft advice.



A load of waste is spread out by bulldozer at the bottom of the 70-foot-deep Environmental Restoration Disposal Facility.

Acknowledgements

The Hanford Advisory Board would like to acknowledge the following resources used for the content of the Board's Annual Report:

- U.S. Department of Energy Hanford Site online photo gallery (www.hanford.gov/photogallery)
- U.S. Department of Energy press releases
- Washington State Department of Ecology website (www.ecy.wa.gov/programs/nwp/index.html) and presentations
- U.S. Department of Energy Hanford Site website (www.hanford.gov) and presentations
- U.S. Environmental Protection Agency presentations
- Tri-Party Agreement agency representatives and Board chair
- Hanford Advisory Board members
- EnviroIssues photos



Board chair Susan Leckband, and agency representatives Matt McCormick (DOE-RL) and JD Dowell (DOE-ORP) share a laugh in Seattle at the September 2010 Board meeting.

Acronyms and Glossary

ARRA: American Recovery and Reinvestment Act.

BAG: Hanford Beryllium Awareness Group.

BCC: Budgets and Contracts Committee (HAB).

CAP: Corrective Action Plan.

CBDPP: Develop and implement a best-in-class Hanford Site Chronic Beryllium Disease Prevention Program (CBDPP) to ensure worker protection.

Central Plateau: The location of the 200 East and 200 West Areas and waste management facilities situated in those areas.

CERCLA: Comprehensive Environmental Response, Compensation and Liability Act of 1980, also known as Superfund, providing statutory authority for cleanup of hazardous substances.

COTW: Committee of the Whole (HAB).

CP Strategy: A DOE strategy to establish goals, objectives and principles to guide cleanup decisions for the Central Plateau. Its primary goal is to shrink the final cleanup footprint for the Central Plateau from 75 to approximately 10 square miles by 2015.

DOE: U.S. Department of Energy.

DOE-HQ: U.S. Department of Energy Headquarters in Washington, D.C. Hanford cleanup is overseen by DOE's Office of Environmental Management.

DOE-ORP: U.S. Department of Energy - Office of River Protection.

DOE-RL: U.S. Department of Energy - Richland Operations Office.

Ecology: Washington State Department of Ecology.

EIS: Environmental Impact Statement, a document prepared to comply with the National Environmental Policy Act (see below).

EM: Environmental Management.

ERDF: Environmental Restoration and Disposal Facility, a massive landfill where low-level radioactive waste and mixed low-level wastes from Hanford cleanup are disposed.

EPA: U.S. Environmental Protection Agency.

FACA: The Federal Advisory Committee Act is a U.S. law (Pub. L. 92-463, Oct. 6, 1972) which governs the behavior of advisory committees. DOE chartered the Board in 1994 under FACA.

FFTF: Fast Flux Test Facility, a fast neutron flux nuclear test reactor owned by DOE. The facility is located in the 400 Area of the Hanford Site and is currently undergoing deactivation (i.e., shutdown or transition).

FS: Feasibility Study.

FY: Fiscal Year.

HAB or Board: The Hanford Advisory Board.

HAMTC: Hanford Atomic Metal Trades Council.

HSEP: Health, Safety and Environmental Protection Committee (HAB).

HSS: DOE Office of Health, Safety and Security.

ISMS: Integrated Safety Management Systems.

K Basins: Water-filled basins ("K East" and "K West") located less than 1,000 feet from the Columbia River that were used to store spent nuclear fuel from reactor operations.

LAW: Low Activity Waste facility (WTP complex).

LTS: Long-term stewardship.

MLLW: Mixed low-level waste.

MTCA: The Model Toxics Control Act (1989) is Washington's state Superfund cleanup law, which establishes a process to identify cleanup sites, cleanup standards and management, and cleanup enforcement.

NEPA: National Environmental Policy Act of 1969 requiring federal agencies to use an interdisciplinary approach in planning and decision making for actions that impact the environment. NEPA requires the preparation of an EIS on all major Federal actions significantly affecting the human environment.

Acronyms and Glossary

PIC: Public Involvement and Communications Committee (HAB).

PFP: The Plutonium Finishing Plant was used for stabilizing and repackaging plutonium and plutonium-contaminated material at Hanford. PFP was used extensively during the Cold War to purify and convert plutonium-laced solutions into a solid form to be used by nuclear weapons facilities.

Pre-1970s TRU: Waste with transuranic characteristics disposed of prior to 1970.

RAP: River and Plateau Committee (HAB).

RCRA: Resource Conservation and Recovery Act of 1976.

RI/FS: Remedial investigation/feasibility study (EPA).

River Corridor or Columbia River Corridor: Hanford facilities and waste sites along the Columbia River.

ROD: Record of Decision; a required document administered by EPA under CERCLA.

SSAB: Site-Specific Advisory Board, a board that provides advice and recommendations to DOE's environmental restoration and waste management activities. Nine local community boards are chartered under the EM SSAB Federal Advisory Committee Act (FACA) Charter.

SWBG: Solid waste burial grounds.

TC&WM EIS: The Tank Closure and Waste Management Environmental Impact Statement intended to provide a comprehensive and integrated look at near-term waste management and tank waste cleanup actions at Hanford.

Tank farms: Underground waste storage tanks at Hanford are grouped into "farms." Hanford has 18 tank farms with anywhere from two to 16 tanks per farm.

TPA: Tri-Party Agreement, the informal name for the Hanford Federal Facility Agreement and Consent Order signed by the U.S. Department of Energy, the U.S. Environmental Protection Agency, and the Washington State Department of

Ecology in 1989. Cleanup milestones are identified in the TPA through numbered series, such as M-91 for transuranic waste disposal and M-24 for groundwater monitoring.

TPA agencies: Agencies party to the TPA: DOE, EPA, and Ecology (see above).

TRU: Transuranic waste.

TRUM: Transuranic mixed waste.

Vadose zone: The soil zone between ground surface and the top of the groundwater.

Vitrification: A process that mixes radioactive waste with other materials to form glass. The glass reduces the potential for radioactive and hazardous contamination leaching into the environment.

WTP: Waste Treatment and Immobilization Plant, the facility where tank waste will be vitrified.

WIPP: Waste Isolation Pilot Plant, the world's first underground repository licensed to safely and permanently dispose of transuranic radioactive waste left from the research and production of nuclear weapons. It is located near Carlsbad, New Mexico.

100 Area: 26 square miles of land along the Columbia River where the nine nuclear reactors are located.

200 Area: The location on the Central Plateau of the 177 underground tanks, principal nuclear chemical processing facilities, and defense waste management activities.

200 PW-1, 3 and 6: Waste sites near PFP.

300 Area: An area three miles north of Richland, location of former research and development laboratories and reactor fuel manufacturing facilities.

400 Area: FFTF is located in the 400 Area and currently is undergoing deactivation (i.e., shutdown or transition).

618-7, 10 and 11 burial grounds: Burial grounds in the 300 Area.

Hanford History



In this photo from World War II, B Reactor can be seen between the water towers on the right side of the photo, along with other facilities that supported reactor operations. The reactor began operating in September 1944; it was shut down from 1946-1948, and then went back into service until 1968.

The 586 square mile Hanford Site was the first and primary plutonium production facility for the nation's nuclear weapons program. The site, which began operations in 1944, includes nine production reactors along the Columbia River, two test reactors, four chemical separation plants, and plutonium processing facilities. The Hanford Site also has 177 underground storage tanks containing 53 million gallons of radioactive and chemical waste.

Between the start of operations in 1944 and the shutdown of the last reactor in the late 1980s, Hanford produced more than two-thirds of the nation's estimated 111 metric tons of plutonium. The production of plutonium generated large amounts of radioactive and chemically hazardous wastes. Hanford has 60 percent of the volume of the nation's military high-level radioactive waste and over 1,400 waste sites containing liquid and solid waste.

Currently, Hanford is engaged in one of the world's largest environmental cleanup projects. The site mission shifted from operations to cleanup in 1989 when DOE, EPA, and Ecology signed the landmark Hanford Federal Facility Agreement and Consent Order, commonly known as the Tri-Party Agreement or TPA. The TPA outlines legally enforceable milestones for Hanford cleanup over the next several decades. See page 9 for information about TPA changes made in 2010.

DOE's Richland Operations Office (DOE-RL) is responsible for environmental restoration and waste management activities at Hanford. DOE's Office of River Protection (DOE-ORP) was established by Congress in 1998 to manage the complex project of retrieval, treatment, and disposal of Hanford tank wastes and construction of the Waste Treatment Plant.

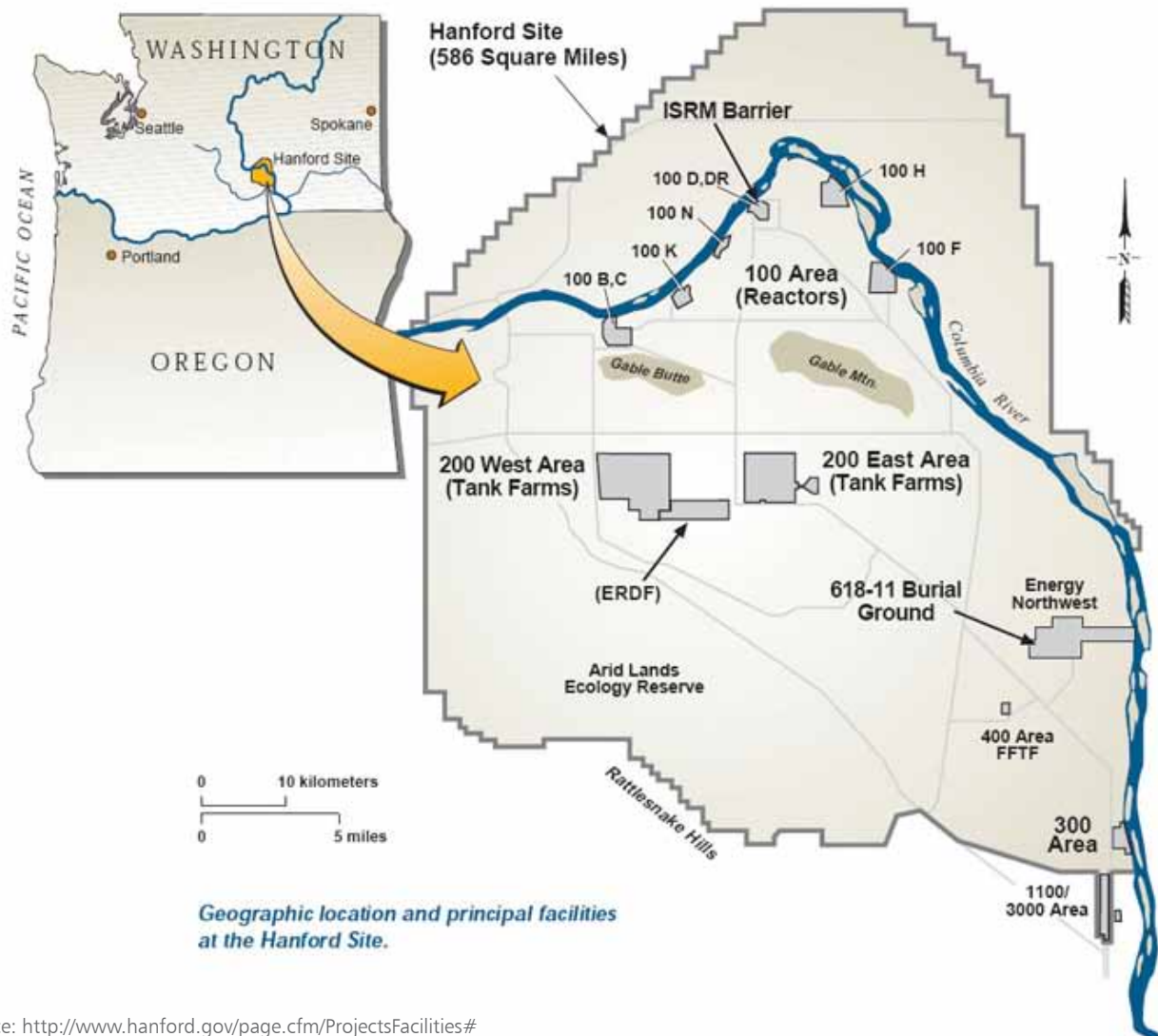
Hanford History



Workers clean up the former site of the 6652-T Fire Protection Lower Pump House on the upper Arid Lands Ecology Reserve.



The bluffs near F Reactor along the Columbia River.



For More Information

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If you would like to receive additional copies of this report, please contact Tammie Gilley, Envirolssues, at (509) 942-1906.

Information about the Hanford Advisory Board is available online at www.hanford.gov.

Hanford Public Information Repositories

Portland
Portland State University
Branford Price Millar Library
1875 SW Park Ave.
Attn: Don Frank
(503) 725-4709
Map: <http://www.pdx.edu/map.html>

Richland
U.S. Department of Energy Reading Room
Consolidated Information Center
WSU Tri-Cities, Room 101L
2770 University Dr.
Attn: Janice Parthree
(509) 372-7443
Map: <http://tinyurl.com/2axam2>

Seattle
University of Washington
Suzzallo Library
Government Publications Division
Attn: Janice Thomas
(206) 543-4363
Map: <http://tinyurl.com/m8ebj>



1,900 WTP construction site staff.