

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).

RCBRA: The objective of the River Corridor Baseline Risk Assessment is to assess the risk of contamination exposure to humans and ecological receptors using the Columbia River corridor on the Hanford site.

RCRA: Resource Conservation and Recovery Act of 1976.

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 the CERCLA.

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

STCG: Site Technology Coordination Group.

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 eighteen tank farms with anywhere from two to sixteen 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.

TWC: Tank Waste Committee (HAB)

Vadose zone: Region of aeration above the water table; water in this area is called vadose water.

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 the city 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.

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Looking back

2009 was a year for milestones. Hanford celebrated the twentieth anniversary of the Tri-Party Agreement (TPA) and the Hanford Advisory Board (HAB or Board) celebrated its fifteenth year of providing advice and counsel to the TPA agencies – the U.S. Department of Energy (DOE), Washington State Department of Ecology (Ecology), and U.S. Environmental Protection Agency (EPA).

As predicted, the year turned out to be incredibly dynamic for the HAB. Committees were extremely busy gathering information and determining if advice was warranted on a full slate of cleanup issues. The Public Involvement and Communications Committee became rejuvenated, increased the frequency and depth of their meetings, and responded enthusiastically to agency requests for input on a variety of public events regarding Hanford cleanup. Board members participated in a record number of committee and Committee of the Whole meetings and workshops to support information gathering and advice development. It seemed like we Board members were either participating in a workshop, committee meeting, or full Board meeting while accommodating changing schedules in order to address emerging issues. I appreciate the dedication and flexibility that Board members and the TPA agencies demonstrated during this busy year.

One indicator of the increased level of effort and the depth and breadth of policy issues demanding Board attention in 2009 was the amount of advice the Board produced. The Board nearly doubled the amount of advice generated in 2008, adopting 14 pieces of advice in 2009. More details on this year's advice follow later in this report and complete versions of the advice and agency responses are available on the HAB website at www.hanford.gov.

The Board and the TPA agencies underwent leadership and staffing changes in 2009. Bob Suyama was selected as vice chair for the Board. Ecology director Jay Manning was succeeded by Ted Sturdevant and EPA manager Nick Ceto was

succeeded by Dennis Faulk after leaving to work for DOE. Senior management at local DOE field offices remained in place and the Board worked closely with all three agencies throughout the year.

Sadly, the HAB lost two staunch Hanford cleanup supporters in 2009. Ralph Patt was an early member of the Hanford Advisory Board, noted for his support of slant-well drilling for monitoring wells. Dr. Jim Trombold was passionate about worker and public health, and was a current member when he passed away. Both Ralph and Jim believed public involvement was critical to better cleanup decisions. They will be missed.

American Recovery and Reinvestment Act

Hanford cleanup got a big boost in 2009 from American Recovery and Reinvestment Act (ARRA) funding, receiving \$1.96 billion in addition to the base budget for cleanup. This money came to Hanford with specific criteria: It must create new jobs or save jobs slated for elimination; work identified must be “shovel-ready” to put people to work immediately and be readily accelerated; work must focus on cleanup completion and active cleanup footprint reduction; and the bulk of the work must be completed and money spent by the end of 2011.

Workshops

HAB and public workshops were well attended by HAB members. Workshops focused on the Hanford budget, science and technology, base assumptions, public involvement, Central Plateau Cleanup Completion Strategy, and the draft Tank Closure and Waste Management Environmental Impact Statement. HAB members worked with the TPA agencies to schedule workshops, identify

Acronyms and Glossary

BCC: Budgets and Contracts Committee (HAB).

BC Area: An area of the Hanford Site along the Columbia River where B and C reactors are located.

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

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 active cleanup footprint for the Central Plateau from 75 to approximately 10 square miles.

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

DBVS: The Demonstration Bulk Vitrification System is a treatment technology currently under consideration to treat low-activity tank waste as a supplement to work at the Waste Treatment and Immobilization Plant.

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 the 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.

HAMMER Training and Education Center: A training site for cleanup and emergency response personnel. It is also used for training and education of non-Hanford workers.

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

IPL: Integrated Priority List.

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).

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.

PIC: Public Involvement and Communications Committee (HAB).

Members or Alternates who left the Board in 2009

Meredith Crafton
Nolan Curtis (Washington State Department of Ecology, ex-officio)
Susan Kreid
Mason Lowe
Gene Schreckhise
Tom Stoops
Charles Weems

In Memoriam

Ralph Patt

Jim Trombold

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 and presentations
- U.S. Department of Energy Hanford Site website and presentations, including *Central Plateau Cleanup Completion Strategy* (DOE-RL-2009-91, REV 0, page 3-1)
- U.S. Environmental Protection Agency presentations
- Tri-Party Agreement agency representatives and Board chair

presenters and develop agendas. Each of these workshops had focused agendas, encouraged attendees to become more educated and involved, and fostered lively dialogue – exactly what a workshop should do.

Cleanup accomplishments in 2009

In 2009, the TPA agencies reached agreement on changes to the TPA schedule and milestones (see page 8). DOE successfully completed plutonium shipments off the Hanford Site and is on track to complete decommissioning at the Plutonium Finishing Plant by 2015. DOE also reached the 50 percent completion mark for construction at the Waste Treatment Plant (WTP) and removed the 105 K East Basin. More accomplishments are outlined in the body of this report.

Looking ahead

2010 is the second year for ARRA funding and the Board has high expectations for the initiation and completion of many more “shovel-ready” cleanup activities. The Board's committees are developing and tracking their work plans to support agency requests for advice and to identify emerging issues. The vision for reducing the size of the Hanford Site will undoubtedly be the center of much discussion and should become clearer as records of decisions are issued for the Central Plateau. The draft Tank Closure and Waste Management Environmental Impact Statement (EIS) will be examined and its influence on cleanup decisions will become more evident as the year progresses. The HAB will continue to be very involved on a national level with the DOE Environmental Management Site Specific Advisory Board. Additionally, we will continue to gather information from various national forums to better understand how national events may affect Hanford cleanup and bring that information to the full Board.

The HAB leadership will work hard to maintain the planned schedule for full Board and committee meetings in 2010 but we do understand that occasionally emerging issues require flexibility and change of plans. I look forward to this new decade, beginning with 2010, to usher in a renewed emphasis on public participation in monumental Hanford cleanup decisions on the immediate horizon – especially for the 200 Area Central Plateau.

I extend my gratitude to the volunteer members of the Hanford Advisory Board for their continued dedication and commitment, and for both past and present service.

Susan Leckband, HAB chair

“Workers successfully completed removal of the K East Basin, completing a top cleanup priority at Hanford and reducing a significant environmental risk to the Columbia River.”

Dave Brockman, DOE-RL manager

“This year, DOE-ORP celebrated the achievement of surpassing 50 percent completion of the Waste Treatment Plant. We value the HAB's involvement in the decisions the Department will make as we continue to move toward tank waste treatment and eventual closure of the tank farms.”

Shirley Olinger, DOE-ORP manager



Susan Leckband, HAB chair

Hanford history

The 586-square mile Hanford Site was the first and primary plutonium production facility for the United States' nuclear weapons program. The site, which began operations in 1944, includes nine production reactors along the Columbia River, two test reactors, the Fast Flux Test Facility, four chemical separations plants, and plutonium processing facilities. The Hanford Site also has 177 underground high-level nuclear waste storage tanks containing 53 million gallons of radioactive waste and 176 million curies of radioactivity. 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.



Hanford Site

Currently, Hanford is engaged in the world's largest environmental cleanup project. 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 8 for information about TPA changes made in 2009.

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 WTP. This year, DOE-ORP surpassed the 50 percent completion mark for WTP.

Organization/Group

Primary Member

Alternate

STATE OF OREGON (2)

Oregon Hanford Cleanup Board

Barry Beyeler

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

Emmett Moore

PUBLIC AT LARGE (4)

Norma Jean Germond

Nancy Murray

Keith Smith

George Jansen, Jr.
Shelley Cimon

Bob Parazin

Samuel Dechter

Bob Suyama

Mike Korenko

EX-OFFICIO REPRESENTATIVES

Confederated Tribes of the
Umatilla Indian Reservation

Armand Minthorn

Washington State Department of Health

Earl Fordham

Debra McBaugh
John Martell

U.S. Department of Energy-RL

Dave Brockman
Doug Shoop, Co-Deputy

Paula Call

U.S. Department of Energy-ORP

Shirley Olinger
Steve Pfaff, Co-Deputy

Lori Gamache

U.S. Environmental Protection Agency

Dennis Faulk

Emy Laija

Washington State Department of Ecology

Jane Hedges

John Price

Organization/Group	Primary Member	Alternate
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LOCAL ENVIRONMENTAL INTERESTS (1)

Richland Rod & Gun Club	Gene Van Liew	Paul Kison
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REGIONAL CITIZEN, ENVIRONMENTAL & PUBLIC INTEREST ORGANIZATIONS (5)

Columbia Riverkeeper	Greg deBruler	Steve White Steve Roney
Hanford Watch	Paige Knight	Steve Hudson Robin Klein
Heart of America Northwest	Gerald Pollet	Helen Wheatley Amber Waldref
Washington League of Women Voters		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

Cleanup focus: Central Plateau Cleanup Completion Strategy

Hanford Site cleanup in 2009 will be remembered for many things: The infusion of nearly 2 billion dollars of additional funding through the American Recovery and Reinvestment Act (ARRA or “stimulus funding”); proposed changes to scope and milestones contained in the TPA; the application of advances in science and technology in cleanup approaches; the long-anticipated release of the draft Tank Closure and Waste Management EIS; and the development and roll-out of the Central Plateau Cleanup Completion Strategy (CP Strategy). While each of these significantly influenced the future of Hanford, DOE’s proposed CP Strategy is a major component of cleanup that the Board will continue to focus on in 2010.

Background

The Central Plateau is a 75-square mile area located near the center of the Hanford Site. It includes the 200 East and 200 West Areas that contain approximately 900 facilities formerly used to support fuel processing for plutonium production. Today, the area contains 177 underground storage tanks, 337 wells, and 884 waste sites. Approximately 60 square miles of contaminated groundwater plumes originate from the radioactive and hazardous materials contained within the Central Plateau.



Crews demolish large vertical tanks at N Area. This work is part of the effort to shrink the active cleanup footprint of the Central Plateau.

Did you know?

You can view all Board advice at www.hanford.gov.

Central Plateau Cleanup Completion Strategy

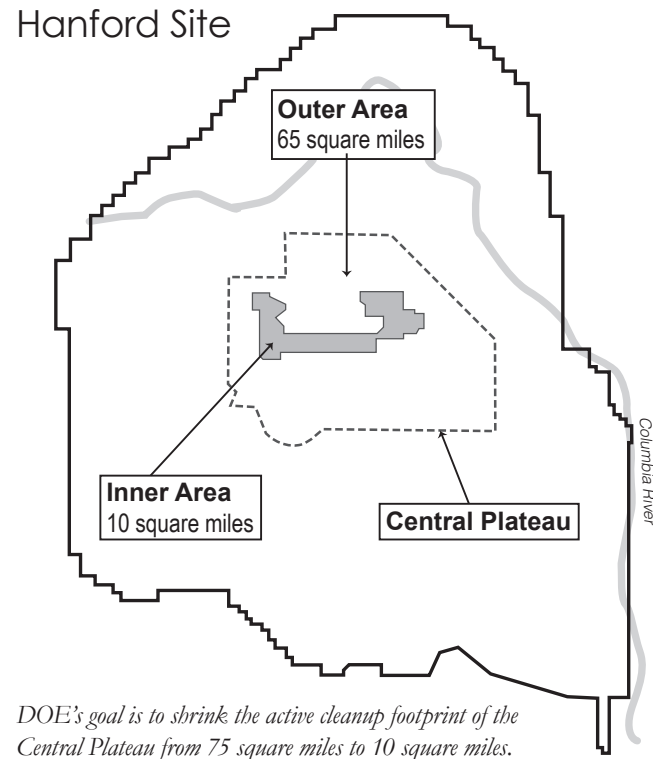
In September 2009, DOE released the CP Strategy. DOE stated that the purpose of the strategy is to “establish a vision for what the Central Plateau would look like when cleanup is done” and “establish goals, objectives and consistent principles to guide cleanup decisions.” Throughout the year, DOE, EPA, and Ecology have briefed the Board and invited input on the Central Plateau cleanup approach.

DOE's CP Strategy identifies three major cleanup components: 1) the Inner Area, 2) the Outer Area and 3) groundwater underneath the Central Plateau. The CP Strategy's primary goal is to shrink the active cleanup footprint of the Central Plateau from 75 square miles to approximately 10 square miles. The following is a description of these components:

- Inner Area: The final 10-square mile active cleanup footprint of the Hanford Site.
- Outer Area: All areas of the Central Plateau beyond the boundary of the Inner Area (65 square miles).
- Groundwater: Contaminant plumes underlying the Central Plateau and originating from waste sites on the Central Plateau.

DOE proposes assessing each individual site and making cleanup decisions for the Inner Area based on geographic area, and consolidating documents that make such decisions to help with "consistent remedy selection and effective implementation." With the same purpose in mind, DOE proposes to consolidate cleanup decisions for the Outer Area into a single record of decision (ROD).

Refer to the CP Strategy at www.hanford.gov for a complete description of DOE proposals.



DOE's goal is to shrink the active cleanup footprint of the Central Plateau from 75 square miles to 10 square miles.

Board Involvement

Central Plateau cleanup was the focus topic for the 2008 Board annual report, and is again this year with the CP Strategy. Since issuing its first piece of advice in 1994, the Board has expressed and retained interest in cleanup on the Central Plateau through issuance of an additional 12 pieces of specific advice (see Board Advice #1, 82, 128, 132, 141, 170, 173, 174, 177, 181, 197, 207 and 216). The Board believes Advice #173, Central Plateau Values, issued in 2005, to be critical as it stresses the Board's preference for DOE to 1) first characterize, then retrieve, treat and dispose of waste; 2) ensure that all remaining waste left in a facility or configuration is protective to human health and the environment; and 3) use engineered barriers only as a last resort remedy. Advice #197, Groundwater Values, is also a pivotal piece of advice, and includes a groundwater decision flow chart to ensure Board values regarding groundwater are considered in agency decision-making processes.

HAB Members and Alternates
as of December 2009

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	Julie Jones	Donna Noski
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	Mike Keizer	
Hanford Atomic Metal Trades Council	Becky Holland	David Molnaa
"Non-Union, Non-Management" Employees (2)	Jeffrey Luke Susan Leckband	Laura Hanses Larry Lockrem
Hanford Challenge	Tom Carpenter	Allyn Boldt Liz Mattson

Hanford Advisory Board membership

New 2009 HAB members and alternates

Name	Seat	Appointment Date
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Howard Putter	Local and Regional Public Health	July 10, 2009
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Howard is a retired orthopedic surgeon and has lived in Seattle with his wife since 1983. He works with Physicians for Social Responsibility and has always found Hanford to be one of Washington's most significant issues. Howard is happy to have the opportunity to learn more about the site and join others in working to clean it up.

Dale Engstrom	State of Oregon	April 6, 2009
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Dale comes to the Nuclear Safety Division of the Oregon Department of Energy from the University of Montana Doctor of Philosophy candidacy. His dissertation work delved into the detection and modeling of complex sediment architecture found in high energy braided rivers. Dale entered the graduate program after teaching environmental sciences for five years at Salish Kootenai College on the Flathead Reservation in northwestern Montana. Prior to teaching, Dale worked as a mine geologist, mine exploration geologist, surface water hydrologist and hydrogeologist.

Mecal Samkow	State of Oregon	July 20, 2009
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Mecal is currently enrolled in the Systems Science Master's Program at Portland State University and works for IVIS Software, assisting and consulting in winery production and vineyard records/analysis. Mecal spent much of her childhood in Hood River with her grandparents, and thus has a particular interest in the history and future of the Columbia River. Her interest in Hanford is somewhat unique among Board members in that she has family members in Belarus and Ukraine who were affected by the Chernobyl disaster.



Board members Ken Gasper and Steve Hudson discuss DOE's proposed CP Strategy at a Committee of the Whole meeting in October 2009.

The benefit of early Board involvement was successfully demonstrated in 2008 for the proposed plan for PW-1, 3 and 6 waste sites on the Central Plateau. Decision-making for these cleanup sites may serve as a model for other planning. Following that model, DOE began providing monthly briefings on the CP Strategy development to the Board's River and Plateau Committee, beginning in March 2009. At the June 2009 Board meeting, DOE briefed Board members on the CP Strategy and reviewed in more detail each of the three major components (Inner Area, Outer Area and groundwater). The Board identified issues, concerns, and additional questions for each of the three components; this information was synthesized and provided to DOE. Monthly updates continued at the River and Plateau Committee meetings in July and August.

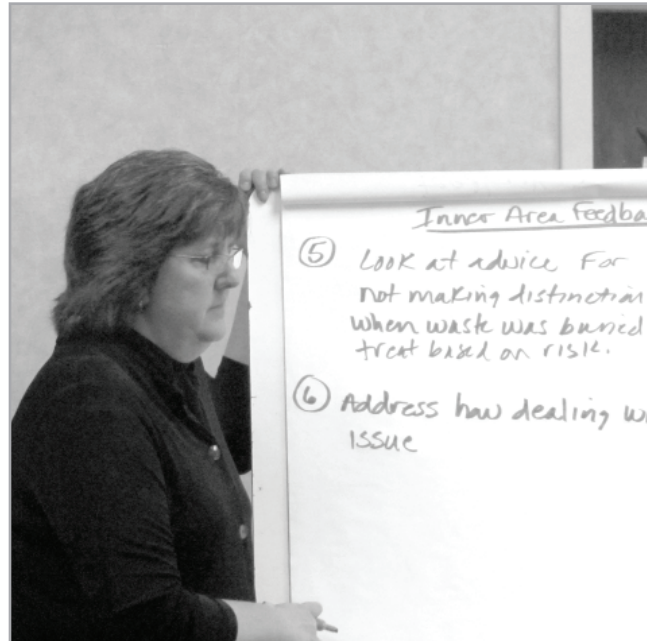
After DOE's September release of its CP Strategy, the Board held a Committee of the Whole meeting in October focused entirely on the strategy. Based on the

issues, concerns and questions previously identified by the Board, the Committee of the Whole was structured to focus on DOE's proposals for 1) the overall decision structure and geographic approach, 2) the Inner Area, and 3) characterization of waste sites. Board members identified new and ongoing areas of concern and questions, which were later provided to all Board members and representatives from DOE, EPA, and Ecology.

At the November Board meeting, a "sounding board" was held to provide an opportunity for each Board member and alternate in attendance to make a brief, formal statement addressing their constituencies' interests, support and/or concerns regarding DOE's proposed CP Strategy. The Board has used this method of facilitation in the past to provide the TPA agencies with the breadth of opinions and concerns about specific, major issues that is sometimes not reflected in consensus advice.

Areas of interest and/or concern identified by Board members during the sounding board include:

- Continuous waste management by DOE in perpetuity in the Inner Area
- New exposure scenarios to set threshold criteria and cleanup levels
- Decision-making based on geographical areas
- Whether to have a fewer number of RODs (one for the entire Outer Area and potentially four for the Inner Area)
- Degree of characterization (especially for the vadose zone)
- Whether to cap waste sites adjacent to canyons and other structures
- Applying EPA guidance for landfills to burial grounds



Board facilitator Susan Hayman facilitated the Committee of the Whole meeting in October. Board members identified comments, questions and concerns about DOE's proposed CP Strategy.

What's next?

DOE, Ecology, and EPA are still discussing key points on the strategy, paying particular attention to finding common ground on the concept and cleanup of the Inner Area. Once negotiations are complete, TPA change packages for the Central Plateau will be proposed for further Board evaluation and public review and comment. In the meantime, the Board will decide whether to offer advice on the CP Strategy itself, or wait until TPA change packages are proposed.



Gene Van Lien, Dick Smith, Al Boldt and other Board members participated in a Committee of the Whole meeting to discuss DOE's proposed CP Strategy.

What's next ?

Board work in 2010

The Board will continue to challenge itself in 2010 by tackling big issues important to Hanford cleanup. Board members will track TPA agency review and changes to the CP Strategy and the draft Tank Closure and Waste Management EIS, as well as the development of new technologies and how to encourage further emphasis on research and development. The Board will also focus on public involvement for the Resource Conservation and Recovery Act Site-Wide Permit and worker safety around tank vapors. Additionally, the Board will continue to follow WTP construction and how DOE-ORP and its contractors identify ways to deal with technical issues related to treating tank waste.

As always, the Board and the TPA agencies encourage all members of the public to come learn about and share their thoughts on Hanford cleanup at a Board meeting. The Board serves as a major pathway for the public to provide input on decision-making at Hanford. Please visit the Board's Web site at www.hanford.gov and see the back of this report for more information.

We want to hear from you.

Share your thoughts on Hanford cleanup at a HAB meeting.

2010 Board meeting schedule

February 4-5, 2010

Kennewick, Washington

June 3-4, 2010

Richland, Washington

March 4, 2010

Special meeting
Richland, Washington

September 9-10, 2010

Seattle, Washington

April 8-9, 2010

Portland, Oregon

November 4-5, 2010

Tri-Cities, Washington

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

"We engaged the HLAB early and often in discussions surrounding the Central Plateau Strategy. The HLAB's sounding board exercise provided us with an excellent array of stakeholder values to keep in mind as we continue to refine the strategy."

Dave Brockman, DOE-RL manager

"DOE's Central Plateau strategy is one of many considerations that will be discussed during TPA milestone negotiations. The change package resulting from negotiations will be submitted for public comment. Our job is to make certain that the approach to cleaning up the Central Plateau provides for the thorough investigation of waste sites, facilities and groundwater contamination and a full evaluation of cleanup alternatives so that we can create protective and lasting solutions."

Craig Cameron, EPA project manager

2009 Board and committee leadership

Board leadership

Chair: Susan Leckband
Vice Chair: Rick Jansons
National liaison: Shelley Cimon

Committee leadership

Budgets and Contracts Committee

Chair: Gerry Pollet
Vice Chair: Harold Heacock

Health, Safety and Environmental Protection Committee

Chair: Keith Smith
Vice Chair: Mike Korenko

Public Involvement and Communications Committee

Chair: Steve Hudson
Vice Chair: Ken Niles

River and Plateau Committee

Chair: Pam Larsen
Vice Chair: Maynard Plahuta

Tank Waste Committee

Chair: Larry Lockrem
Vice Chair: Rob Davis

Changes to the Tri-Party Agreement

One of the many important issues the Board has been tracking over the past few years is the continuing negotiations between the TPA agencies over changes to the TPA. The TPA is the legally binding document that directs cleanup at Hanford. The TPA agencies have been in negotiations since 2007 over the schedules for construction and commissioning of WTP, schedules for retrieval of single-shell tank waste, expansion of groundwater cleanup, and development of a report of the total cost and time expected over the life of a cleanup activity, or a “lifecycle scope, schedule and cost report.” In 2007, the Board adopted advice (Advice #203) asserting that cleanup delays were not justified and would directly impact the environment and public safety.

In spring 2009, the TPA agencies reached agreement on the first change package that added new groundwater milestones to the TPA, reflecting their shared priority of protecting the Columbia River through aggressive groundwater cleanup. Negotiations on the second change package regarding tank waste cleanup, among other issues, resulted in a stalemate and the State of Washington filed a lawsuit in late 2008. The State of Oregon joined the litigation in early 2009. The TPA agencies resumed talks in 2009 to resolve these remaining issues. This culminated in mid-August when Energy Secretary Steven Chu along with Washington Governor Chris Gregoire, Oregon Governor Ted Kulongoski, Washington Attorney General Rob McKenna, U.S. Senators Patty Murray and Maria Cantwell, acting U.S. Assistant Attorney General John Cruden and other officials made an announcement that they had reached a legal settlement to impose a new, enforceable and achievable schedule for tank waste cleanup at the Hanford Site.

The new tank waste cleanup and TPA milestone schedules are outlined in a judicial consent decree. The proposed consent decree, in which a judge determines when all actions are done, would modify existing milestones and provide provisions for defining the retrieval rate for single-shell tanks as well as regulatory processes and coordination to resolve disputes. Key changes include:

- Retrieve tank waste from all C Farm single-shell tanks by 2014 instead of 2006
- Complete construction of WTP and begin operations (“hot start”) by 2019 instead of 2011
- Achieve initial WTP operations in 2022 (new milestone)
- Complete waste retrieval from nine additional single-shell tanks in 2022 (new milestone)

In conjunction with the proposed consent decree, the TPA agencies recommended key modifications to TPA milestones including:

- Retrieve waste from all single-shell tanks by 2040 instead of 2018
- Treat all tank waste by 2047 instead of 2028
- Complete closure of all double-shell tanks by 2052 (new milestone)

“2009 marked the 20th anniversary of the Tri-Party Agreement. Although it is not perfect, I believe it serves as a valuable tool in moving Hanford cleanup forward.”

Dennis Faulk, EPA program manager



Construction was completed on the waste retrieval system for tank C-104 at Hanford. The proposed settlement agreement between the TPA agencies would change the deadline for retrieving all waste from C Farm single-shell tanks to 2014 instead of 2006.

“This past August, DOE and the State of Washington reached a critical agreement over modified Tri-Party Agreement milestones and a proposed consent decree. The Board’s advisory role provided a highly valuable perspective throughout the public comment period. The Board’s voice remains a strong indicator of public values and concerns and will be considered as we move forward with determining the milestones and schedules for cleanup of the Hanford Site.”

Shirley Olinger, DOE-ORP manager

The Board adopted advice (Advice #223) which advised the State of Washington and DOE-ORP to sign the consent decree and seek ways to retrieve waste from single-shell tanks on a faster schedule, as well as adopt a new milestone to commence early start-up of the Low Activity Waste facility (see page 17).

As part of the settlement agreement, the TPA agencies proposed adding a new milestone that DOE would prepare an annual report outlining the lifecycle scope, schedule and cost for completion of the Hanford Site cleanup. In Advice #224 (see page 17), the Board recommended that DOE allow regulators and stakeholders to review project and milestone long-term cost, schedule, and assumptions, including for projects projected beyond five years. Furthermore, the Board advised the TPA agencies to provide all necessary information to determine if projects could be accelerated or re-prioritized through project review and to see if DOE took public values for cleanup into consideration in the project baseline assumptions.

The TPA agencies hosted public meetings around the region and held public comment periods on both TPA change packages. The comment period for the proposed consent decree and modifications to the TPA was held from October 1 through December 11, 2009. As a matter of procedure, the Board decided to submit Advice #223 and #224 as formal public comment. After reviewing and considering comments received during the comment period, and assuming there is no comment-based reason not to reconsider finalizing the proposed agreements, the TPA agencies will request the court to enter the proposed consent decree, making the TPA changes final. The TPA agencies will prepare a responsiveness summary for the changes to the TPA. It will be available at www.hanford.gov.

You can view the Tri-Party Agreement at www.hanford.gov.

Board and committee leadership



Board and committee leadership identify HAB priorities for 2010 at the spring leadership retreat in 2009.

The Board chair and vice chair, national liaison, and committee chairs and vice chairs comprise the overall leadership of the Board. Board leadership meets annually at a spring leadership retreat to review the previous year’s work and identify priorities for the coming year. At the 2009 leadership retreat, the Board decided to change the timing of leadership transitions to ensure new Board and committee chairs and vice chairs have the opportunity to participate in the retreat. Therefore, committee leadership selection in 2010 will occur prior to the spring leadership retreat to involve them in planning priorities and setting goals for the coming year.

In 2009, Board leadership was faced with the challenge of tackling a heavy workload while maintaining its processes, which are established to ensure efficiency and efficacy. Managing an onslaught of issues important to Hanford cleanup, such as the proposed changes to the TPA, the imminent release of the draft Tank Closure and Waste Management EIS, and ARRA funding, kept Board leadership diligently tracking cleanup topics with issue managers to ensure timely advice and information gathering.

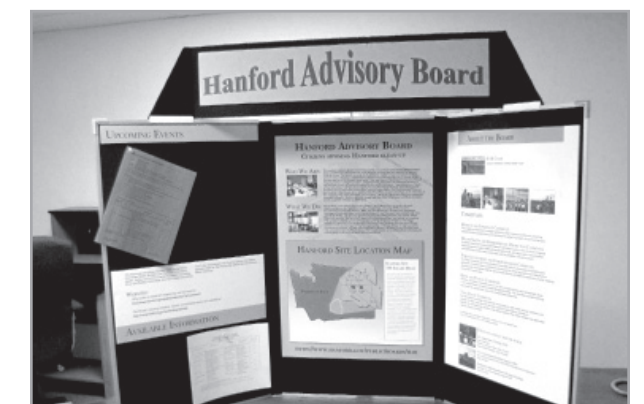
Did you know?

Look for the Board’s blue traveling display. It contains information about the HAB and Hanford cleanup.

National involvement

In 2009, the Board continued to be involved as a member of the U.S. DOE Environmental Management (EM) Site Specific Advisory Board (SSAB). The EM-SSAB advises DOE-EM and is composed of DOE cleanup site advisory board chairs and vice chairs. The EM-SSAB typically meets twice a year; this year it met at the DOE Savannah River Site in Georgia in March and at the Idaho National Laboratory in Idaho Falls in September. In 2009, the EM-SSAB issued two letters to DOE-EM, one welcoming Inés Triay as the new DOE-EM Assistant Secretary and one regarding the recycling and reuse of excess metals and other materials to support waste minimization. The HAB is a leader within the EM-SSAB due to its longevity and institutional knowledge, which is seen as a benefit to site advisory boards across the nation.

This year, the Board’s national liaison also attended the Third Annual Rad Waste Summit in Nevada, a conference that reviews ways to improve radiological waste management.



River and Plateau Committee

RAP considers issues related to contaminated areas along the Columbia River, institutional controls, waste importation, Hanford Central Plateau facilities and burial grounds, and groundwater contamination and remediation. RAP tracked the following issues in 2009:

- Central Plateau Cleanup Completion Strategy
- Remedial investigation and feasibility study work plans for the 100 Area
- Long-term stewardship and use of institutional controls

The committee sponsored Advice #219 about ERDF expansion and regulatory framework, and the June letter to DOE-RL regarding the application of systems criteria to Central Plateau and River Corridor cleanup.



Cranes lift rebar and framework to the pretreatment facility at WTP.

Tank Waste Committee

TWC tracks technical issues related to WTP and tank waste storage, retrieval, treatment, and disposal. In 2009, TWC focused on:

- Design and construction of WTP
- Review of supplemental waste treatment technologies
- Updates on the system plan and the draft Tank Closure and Waste Management EIS
- Report on the single-shell tank integrity workshop findings and recommendations

The committee also worked with the TPA agencies on issues such as the C Farm Tank Performance Assessment and the 242-A Evaporator Environmental Analysis.

“We highly value Board members’ sharing of their values and concerns with the Single Shell Tank Integrity Expert Panel in developing its report for ORP. The report will serve as a significant document as ORP establishes and implements its plan for the Single Shell Tank Integrity Program.”

Shirley Olinger, DOE-ORP manager

American Recovery and Reinvestment Act: Cleanup accomplishments at Hanford

With receiving close to \$2 billion in ARRA funding, or stimulus funding, the Hanford Site is moving forward in its cleanup mission. This infusion of money enables the site to accelerate and re-prioritize project work schedules, hire and train more employees, and meet TPA milestones. The DOE field offices, DOE-RL and DOE-ORP, must spend the stimulus funds within three years, by the end of Fiscal Year (FY) 2011. DOE has a rigorous on-site project review process to ensure ARRA projects execute safe procedures while managing project scope, cost, and schedule baselines.

Of the stimulus funding, DOE-ORP will receive \$326 million. DOE Headquarters (HQ) authorized work to begin in April with the focus on extending the life of operating facilities necessary to support Hanford cleanup, upgrading tank farm infrastructure for future waste transfers to WTP, and preparing for WTP operations. DOE-ORP designated stimulus funds into four areas:

- Tank farm infrastructure, including activities to extend the life of some single-shell tanks
- Waste feed infrastructure, including demonstrations of mixing waste in tanks
- Facility upgrades, such as upgrades to the 242-A Evaporator
- Other infrastructure, including demonstrating whether wiped film evaporator is a viable technology for reducing tank volume in Hanford’s tank farms

“With the investment of nearly \$2 billion in Recovery Act funding, our President and congressional delegation have sent a clear and unmistakable message that America is serious about cleaning up the toxic legacy at Hanford. More than 1,300 jobs have been created or saved at the site by this funding.”

Polly Zehm, Deputy Director, Ecology

The American Recovery and Reinvestment Act funding supports needed upgrades to the aging tank farm infrastructure to prepare reliable and consistent waste feed to the Waste Treatment Plant - creating 200 jobs for next generation nuclear workers to complete the mission.

Shirley Olinger, DOE-ORP manager

“Recovery Act funding allowed construction of another super cell at the Environmental Restoration and Disposal Facility. Expanding disposal capacity by 50 percent plays an extremely important role to ongoing cleanup at Hanford.”

Dave Brockman, DOE-RL manager

Did you know?

You can see how Hanford is using stimulus funding by visiting www.hanford.gov.



Workers remove a section of the wall at the Plutonium Finishing Plant. Hanford recently celebrated moving all plutonium and reactor fuel containing plutonium out of PFP.

DOE-RL aims to reduce the environmental footprint of the Hanford Site from 586 square miles to 75 square miles by 2015 with the allotment of \$1.6 billion in ARRA funding. To accomplish this ambitious schedule, DOE-RL's main focus areas are:

- Plutonium Finishing Plant (PFP), including deactivation and decommissioning activities to prepare for demolition; in November, workers finished moving special nuclear material containing plutonium out of PFP
- Solid waste stabilization and disposition, including soil and groundwater remediation
- Central Plateau decommission and deactivation, and soil remediation, including reducing the Central Plateau Outer Area footprint
- River Corridor, including remediation of 618-10 burial ground trenches and Environmental Restoration and Disposal Facility expansion
- Solid waste stabilization and disposition, including transuranic waste retrieval



Workers prepare to remove four gloveboxes from PFP. Funding from the American Recovery and Reinvestment Act will help DOE complete demolition of PFP by 2013, three years ahead of schedule.

Board Input

DOE-ORP and DOE-RL provided updates on ARRA funding to the Budget and Contracts Committee and the full Board which resulted in the Board adopting Advice #220 in June. The premise of the advice encourages the TPA agencies to not further delay milestones, request sufficient funding to meet current TPA milestones, provide budget information to the public, and accelerate tank waste retrieval and processing through early start-up of the Low Activity Waste facility. The Board will continue to track ARRA funding as cleanup activities continue on the site.



Crews demolish large tanks near U Plant on the Central Plateau. This work is funded by the American Recovery and Reinvestment Act.

Public Involvement and Communications Committee

PIC coaches Board members to meet their commitment to inform and seek feedback from their constituencies, and develops a means for Board members to educate and inform the public about Hanford and the Board's work. In 2009, PIC took the initiative to become more active as a committee through a concerted effort to focus more on Hanford's public involvement issues and activities. In 2009, PIC worked on:

- Public involvement strategic planning
- Improvement of public involvement opportunities for the State of the Site meetings and the draft Tank Closure and Waste Management EIS
- The revision of the TPA Community Relations Plan
- Refocusing the role and function of the committee

PIC sponsored three pieces of advice in 2009 regarding the public comment period for the draft Tank Closure and Waste Management EIS (Advice #212), TPA agencies' State of the Site meetings (Advice #222), and TPA Community Relations Plan revisions (Advice #225)

Did you know?

Board members active in the Public Involvement and Communications Committee routinely collect informal comments from the public at TPA agency workshops and public meetings.

Budgets and Contracts Committee

BCC reviews and monitors the state of Hanford funding, focusing on DOE budgets, expenditures, requests for proposals, and contracts. In 2009, BCC focused on:

- Use of ARRA funding
- Total costs expected over the life of a cleanup activity as identified in the to-be-developed lifecycle scope, schedule and cost report
- TPA modifications and the proposed consent decree
- FY 2009, 2010, and 2011 budgets
- Multi-tier pension and benefit program

The committee developed and brought three pieces of budget advice before the Board for adoption (see page 14).

"PIC has embraced a proactive approach to community involvement which is not only assisting agencies in their efforts but also fulfilling an imperative public need."

Dennis Faulk, EPA program manager

"We are pleased to see the Board's Public Involvement and Communications Committee reinvigorated. The committee produced substantial advice this year to agencies on public involvement for major work at Hanford."

Jane Hedges, Nuclear Waste Program Manager, Ecology

Committees of the Board

The majority of the Board's work takes place at the committee level. The Board's five committees delve into policy issues concerning cleanup at Hanford, identify issues they wish to explore, hold informal discussions to identify major policy issues, work with TPA agency representatives, frame issues for Board consideration, and prepare draft advice. Like the Board, 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 are the River and Plateau Committee (RAP) and the Tank Waste Committee (TWC). The three other committees that work on cross-cutting issues 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 to address leadership issues.



Board chair Susan Leckband and facilitators Susan Hayman and Cathy McCague.

Committees typically meet and have conference calls on a monthly basis. 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 are relevant to multiple committees, members may convene as a Committee of the Whole. The Board increasingly used Committee of the Whole meetings in 2009 and decided to establish periodic placeholders for meetings, which it had never done before. The Committee of the Whole met twice in 2009 to discuss the Central Plateau Cleanup Completion Strategy and base assumptions for Hanford cleanup.

Health, Safety and Environmental Protection Committee

HSEP considers how cleanup activities and DOE and contractor operations impact public health, worker safety, and the environment. HSEP produced more advice in 2009 than it has in previous years, sponsoring both pieces of beryllium advice (#217 and 218). The committee pursued other program topics including tank vapors, worker safety programs and systems (e.g. Integrated Safety Management Systems), and uniform safety programs at Hanford that cut across contracts and project areas.

Advice in 2009:

Board recommendations for Hanford cleanup

The Board's primary purpose is to provide policy recommendations and advice to the TPA agencies on selected major policy issues related to cleanup at the Hanford Site. Examples of policy level issues include impacts to TPA milestones and activities, events of national significance, conflicts with DOE's stated plans, and changes to stakeholder or other public involvement activities or programs. The Board's strength lies in the fact that it operates and adopts advice by consensus of its 31 members. Advice development begins at the committee level (see Committees of the Board on page 23). Committees consider their priority list, which are developed annually by Board leadership and the TPA agencies, and hear from the TPA agencies about cleanup activities and issues. Draft advice is only brought before the full Board once it has committee consensus, and becomes a final product when it achieves full Board consensus. The TPA agencies review and provide formal responses to Board advice.

As of December 2009, the Board has produced 225 pieces of advice on a range of issues related to Hanford cleanup. The Board was very active in 2009, producing 14 pieces of advice regarding:

- Public comment period considerations for the draft Tank Closure and Waste Management EIS (Advice #212)
- Budget priorities (Advice #213, #220 and #221)
- Systems criteria to guide Hanford waste treatment (Advice #214)
- Surface storage capacity for vitrified high-level waste (Advice #215)

"We value the thoughtful advice from the Hanford Advisory Board on Hanford cleanup and compliance work. The Board strengthens our decision-making processes through their advice."

Jane Hedges, Nuclear Waste Program Manager, Ecology

- TPA modifications, including the lifecycle scope, schedule and cost report, proposed consent decree, and TPA modifications (Advice #216, #223, and #224)
- Beryllium disease prevention and workers compensation (Advice #217 and #218)
- Environmental Restoration and Disposal Facility expansion and regulatory framework (Advice #219)
- TPA agencies' State of the Site meetings (Advice #222)
- TPA Community Relations Plan revisions (Advice #225)

The next page is a summary of advice adopted in 2009. To read advice in its entirety, please visit www.hanford.gov and follow the links to HAB advice.

“Public input on the draft is critical for an acceptable final Tank Closure and Waste Management Environmental Impact Statement. Ecology encourages tribal nations, stakeholder groups, members of the public and especially the Hanford Advisory Board to participate in the public comment process and have ample opportunity to review and comment on the draft EIS.”

Jane Hedges, Nuclear Waste Program Manager, Ecology

“The long awaited release of the draft Tank Closure and Waste Management Environmental Impact Statement this fall marked a key step in developing our long-term tank farm closure strategy. The Board’s advice regarding an extended public comment period was adopted by DOE. The Department remains focused on finalizing the EIS and issuing a final Record of Decision.”

Shirley Olinger, DOE-ORP manager

Public comment period considerations for the draft Tank Closure and Waste Management EIS (Advice #212)

The Board has closely followed the development of DOE-ORP’s draft Tank Closure and Waste Management EIS, and believes that decisions made based on its analysis will have significant impacts on cleanup work remaining at Hanford and will influence “the level of perpetual care, monitoring, and oversight necessary for hundreds of years into the future.” Due to the expected length and complexity of the draft EIS, in February, the Board advised DOE-ORP to allow a minimum 120-day public comment period to ensure the public has a fair opportunity to thoroughly review the draft EIS and consider its implications. The Board also requested that DOE-ORP and Ecology conduct

an informational workshop for the Board and other interested parties to explain and discuss the key contents and decision points in the draft EIS. Additionally, the Board advised DOE-ORP to conduct a series of public hearings across the region to solicit public comment, but hold them no earlier than 75 days after the release of the draft EIS to give the public enough time to read the draft, and develop questions and comments. The Board asked that DOE-ORP and Ecology work with the Board’s Public Involvement and Communications Committee to determine the location and number of hearings, as well as their content. Finally, the Board advised that public information materials should explain the implications of bringing new waste to Hanford for disposal or leaving wastes in underground storage tanks and soils.

Did you know?

DOE hosted a workshop on the draft Tank Closure and Waste Management EIS for the Board and public in December 2009.



Bob Suyama, Steve White and Gerry Dagle listen to a draft advice discussion.

Other Board activities and products

Board members are charged with funneling information about Hanford Site cleanup and Board work to the constituencies and public they represent, as well as collecting and providing constituent feedback to the TPA agencies. To help accomplish this, Board members participate in workshops, site tours, and TPA agency-sponsored public involvement activities.

In 2009, Board members were provided a tour of WTP by DOE-ORP. Board members also participated in several Board and TPA agency sponsored workshops and meetings in 2009 on the following topics:

- FY 2011 budget
- Public involvement and strategic planning at Hanford
- Proposed changes to the TPA
- Proposed consent decree and TPA modifications
- Hanford science and technology
- Single-shell tank integrity review and expert panel
- American Recovery and Reinvestment Act and funding
- Base assumptions
- 100 Area B and C remedial investigation and feasibility study
- Tank Closure and Waste Management EIS
- Central Plateau Cleanup Completion Strategy

The Board felt that the two-day science and technology workshop was a highlight of the year, due to the degree of interest and the level of participation by Board members in its development. DOE-RL hosted the workshop in June at Washington State University

- Tri-Cities. The River and Plateau Committee worked with the TPA agencies to help identify meaningful topics and speakers for the workshop. The workshop was open to the public and provided a forum to discuss science and technology needs and priorities, funding for technology development, applying scientific advances to Hanford cleanup. The workshop also provided an opportunity to share and learn about what other DOE sites are doing, and to hear DOE-HQ and local DOE office perspectives.

Other Board products

Advice is the most powerful, formal, and common way the Board provides its comments and recommendations to the TPA agencies. At times, however, the Board decides to communicate with the TPA agencies with a letter. Letters do not require a response by the TPA agencies, but can serve as a way to communicate thanks or congratulations. In 2009, the Board sent a letter thanking DOE staff for their efforts in securing cleanup funding under ARRA. Moving slightly away from typical letter content, the Board decided to send a summary of past advice on institutional controls and long-term stewardship to TPA agencies managers. It also sent a letter asking DOE-RL to use the same systems criteria the Board recommended to DOE-ORP (Advice #214) and included an appendix of past Board advice on systems criteria.



The Board most frequently develops advice, but sometimes decides to send letters to the TPA agencies; letters, however, do not require a formal response.

and accountability and supports the concept of State of the Site meetings. The Board believes these meetings should include an overview of key accomplishments, challenges, and future activities; an overview of how the TPA agencies used public feedback from previous meetings; an opportunity for all organizations and agencies involved with Hanford to share information and perspectives with the public; and an opportunity to receive feedback from the public on cleanup accomplishments, challenges and future activities. The Board provided specific recommendations for supporting meeting objectives and advised the TPA agencies to work cooperatively with the Board and its member organizations to actively promote the meetings.

Updating the TPA Community Relations Plan (Advice #225)

The Board recognized the need for the TPA agencies to update the Hanford Site TPA Community Relations Plan, and the TPA agencies requested advice with specific recommendations

for updating the plan. The plan “outlines the public participation processes implemented by the TPA agencies” and serves as “one of the overall public participation plans guiding TPA public involvement at the Hanford Site.” In Advice #225, the Board provided advice on updating the plan’s content and structure, and improving mechanical and technical aspects. For example, the Board recommended expanding on desired outcomes of public involvement and asked the agencies to identify specific actions and commitments in the plan. The Board also advised the TPA agencies to develop a strategic public involvement workplan and include it as an appendix to the Community Relations Plan.

Did you know?

You can read the TPA Community Relations Plan at www.hanford.gov.

Based on the Board’s advice, DOE-ORP decided to hold a 140-day public comment period from October 30, 2009 through March 19, 2010. An informational workshop was conducted in December and eight public hearings were planned around the region.

Did you know?

You can attend and provide public comment at Board meetings. Check out the 2010 Board meeting schedule on page 28 or visit www.hanford.gov and follow the links to the calendar.

Budget priorities (Advice #213, #220 and #221)

The Board issues yearly advice on budget and funding priorities at Hanford. This year was no exception, and if anything, the Board was more focused on budget given the increased opportunities for work afforded by ARRA, or stimulus funding. During three different Board meetings in 2009, the Board issued advice on Hanford funding: Priorities for FY 2010, Out-Year and Economic Stimulus Budgets (Advice #213), FY 2010 Budget Request and Stimulus Funding (Advice #220), and FY 2011 Hanford Cleanup Budgets and Priorities (Advice #221).

In Advice #213 (February 2009), the Board expressed in detail its recommendations for DOE’s FY 2010 budget request, future requests and how to prioritize additional funding provided by ARRA. To both DOE-RL and DOE-ORP, the Board provided general principles to consider during budget development, including allocating funding by general program priorities rather than specific tasks; identifying what cleanup activities could start early and the resulting benefits; and ensuring worker health and safety. The Board also recommended that DOE identify the impact the proposed expenditures would have on

cleanup objectives such as protecting the Columbia River, reducing the active cleanup footprint of the Hanford Site, stopping or reducing the spread of groundwater contamination, and accelerating cleanup of specific waste sites to reduce long-term maintenance and surveillance costs.

“We agree that the distribution of American Reinvestment and Recovery Act funding provides significant cleanup opportunities to complete work on the Hanford Site through 2011.”

Excerpt from EPA response to HAB Advice #220

“Continued demolishing of buildings in the 200 and 300 Areas and remediating waste sites near those buildings supports our goals of putting people to work using Recovery Act funding. This also is in line with our goal of reducing our footprint of active cleanup to less than 10 square miles in the center of the Hanford site.”

Dave Brockman, DOE-RL manager



Building 212 N (foreground) was a nuclear facility that was demolished in 2009.



Workers completed construction of the waste retrieval system for tank C-104 at Hanford in 2009.

Advice #213 outlined many overarching Board values, funding priorities for DOE and suggested areas for supplemental funding from ARRA. For example, one overarching Board value for DOE-ORP is to provide adequate funding to meet the WTP start-up deadline in 2019. The Board recommended applying ARRA funding to upgrade site infrastructure in preparation for transferring waste to WTP.

In Advice #220 (June 2009), the Board focused more extensively on ARRA funding uses in FY 2010. In advice addressed to both DOE-RL and DOE-ORP, the Board advised that DOE identify and request adequate funding to meet current TPA commitments, and also advised that TPA milestones should not be delayed. The Board recommended that DOE use ARRA funds or annual appropriations to meet existing milestones, and requested that DOE make project funding

allocations, baseline summary prioritization, and cost estimates for both ARRA funds and annual appropriations available to the public. Furthermore, the Board advised DOE to “analyze and implement measures to minimize expenditure of cleanup funds on security costs related to spent fuel storage, plutonium waste materials and PFP.”

Additionally, the Board asked DOE-RL to establish a schedule and provide adequate funding for the processing and disposition of K Basin sludge. The Board also advised DOE-ORP to provide additional funding to accelerate tank waste retrieval, seek public input on priorities for technology research, identify future funding needs for comprehensive system planning studies, and continue to consider early startup for WTP’s Low Activity Waste facility.

In Advice #221 (September 2009), the Board thanked

Advice #218 focused on workers compensation regarding chronic beryllium disease. The Board advised that “DOE should improve the [workers compensation] processes and support affected Hanford workers, including advocacy for fair compensation.” The Board identified ways DOE should assume a leadership role beyond their organization to help Hanford workers, including educating the local medical community about beryllium sensitization, chronic beryllium disease, and expected symptoms; encouraging medical institutions to improve the beryllium sensitivity test; interfacing with the Department of Labor as an advocate for current beryllium sensitized employees; and reviewing the process to obtain compensation through DOE’s third party administrator for industrial accidents. The Board recommended ending the practice of requiring multiple medical exams to receive workers compensation after a worker is already diagnosed under DOE’s beryllium program.

Environmental Restoration and Disposal Facility (ERDF) expansion and record of decision (Advice #219)

ERDF is a disposal site for waste generated by cleanup actions from Hanford. In Advice #219, the Board acknowledged ERDF’s critical role in Hanford cleanup and supported plans to expand the facility, if expansion is done in a manner protective of human health and the environment. The Board advised that DOE-RL, in consultation with EPA and Ecology, should transparently complete and update the ERDF performance assessment using the new understanding of vadose zone transport and uranium solubility and mobility. The advice stated that “based on these evaluations, the TPA agencies should implement actions and/or changes in the design of the facility to mitigate these future releases.” The Board also advised the TPA agencies to create an inventory tracking record and

“We appreciate the Board advising that it is important for DOE to consult with EPA when performing the [ERDF] performance assessment to ensure that EPA’s data needs are met during the performance assessment process. Also, the Board’s advice that the performance assessment not be linked to or delayed by completion of the Tank Closure and Waste Management EIS is timely given the announced delays to that EIS.”

Excerpt from EPA response to HAB Advice #219

planning tool to assess site wastes intended for ERDF. Finally, the Board recommended that the TPA agencies use the formal ROD amendment and comment process for any expansion of ERDF that involves substantive changes to the facility design.

State of the Site meetings (Advice #222)

The TPA agencies have hosted annual State of the Site meetings since 2002, providing the opportunity for senior decision-makers to discuss cleanup progress and challenges with the public and for the public to provide direct input. The Board feels these meetings help foster openness



An excavator removes stockpile dirt from an area where new disposal cells will be developed at ERDF, the disposal facility for mixed low-level waste. This work is funded by the American Recovery and Reinvestment Act.

proposed agreement to revise TPA milestones, the Board issued Advice #224. Building on other TPA advice in 2009, the Board advised Ecology and DOE-ORP to sign the proposed consent decree after incorporating comments. However, the Board felt that “the proposed pace of emptying one to two single-shell tanks a year by 2022 and emptying all tanks by 2040 remains unacceptably slow.” The Board believes the TPA modifications and proposed consent decree should include milestones to accelerate single-shell tank waste retrieval. The advice provided many recommendations for the TPA agencies to:

- Include a new milestone to accelerate startup of WTP’s Low Activity Waste facility.
- Accelerate the decision about what type of supplemental waste treatment to use at Hanford.
- Include enforceable commitments to prevent the disposal of additional offsite wastes before Hanford wastes are cleaned up.
- Include enforceable commitments for the removal of waste to the extent practical, rather than capping it in place.
- Evaluate accelerating milestones every three years instead of six years.
- Accept public comment on all aspects of the proposed agreements and respond to public comment before taking formal action to adopt proposed changes or enter into the consent decree.

Beryllium disease prevention and workers compensation (Advice #217 and #218)

The Board has long been concerned about beryllium exposure and disease prevention for Hanford employees. In April, the Board produced

two pieces of beryllium advice: Beryllium Disease Prevention at Hanford (Advice #217) and Workers Compensation Regarding Beryllium Disease (Advice #218).

In Advice #217, the Board states that “beryllium represents a very serious potential risk to many Hanford employees, often without their knowledge,” and provided background on beryllium sensitivity, exposure, chronic beryllium disease and education efforts. The Board advised DOE to enhance the effort to identify beryllium sources and mitigate the risks that lead to worker sensitivity, including better tracking of employees and employee exposure to beryllium. The Board advised DOE to enhance the site-wide educational program to encourage employees to take the beryllium sensitivity test and provided recommendations for accomplishing this.

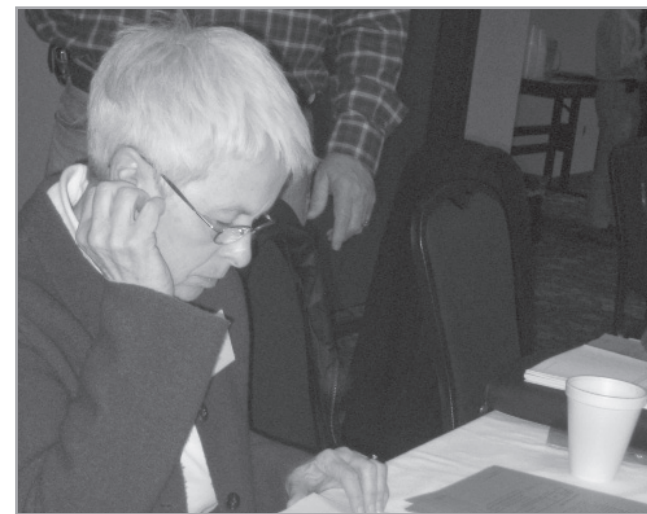


The full Board typically meets five times a year to adopt advice, hear TPA agency cleanup updates, and discuss cleanup issues and priorities.

U.S. DOE Environmental Management Assistant Secretary Inés Triay for her commitment that DOE will develop a lifecycle scope, schedule and cost report to identify the cost and schedule estimates for complete cleanup at Hanford. The Board was also heartened to learn that the combination of ARRA funds and budget requests for FY 2011 will help complete all but one of the current TPA milestones, the exception being the single-shell tank waste retrieval milestone. The Board advised DOE-RL and DOE-ORP to:

- Develop and submit fully compliant Integrated Priority Lists, planning tools that identify and request all funds necessary to meet existing TPA milestones and regulatory requirements.
- Plan for the characterization of waste sites and identify funding to carry out characterization activities in preparation for remediating all non-tank farm units by 2024.
- Realize that multiple RODs and work plans are needed to ensure proper characterization of waste sites (see Central Plateau Cleanup Completion Strategy on page 4).

Systems criteria to guide selecting an optimum



Susan Kreid, Board member in 2009, reviews draft advice.



Board member Gerry Pollet and Earl Fordham, Washington State Department of Health and ex-officio Board member, review draft advice.

path for treating Hanford waste (Advice #214)

In February, the Board provided advice on implementing systems criteria as a guide to treating Hanford waste. This advice recommended that the TPA agencies use a systems engineering approach for managing Hanford wastes based on recent DOE-ORP studies. The Board developed a set of criteria to help define the proper path to deal with secondary wastes:

- Top level criteria: This set of criteria guides decisions for DOE-ORP, their contractors, and the regulators as the fundamental principles. Top level criteria include guidance for remediating and protecting groundwater, soil, environment, and the Columbia River for long-term beneficial use. It also includes determining viable disposal paths for all waste streams so they meet environmental and human health risk requirements.
- Stakeholder and legal criteria: This set of criteria is to protect Hanford workers and to follow legal regulations. The Board included criterion such as reducing the risk to all workers by the application of Integrated

Safety Management Systems and complying with all applicable regulations, including the National Environmental Policy Act and the Comprehensive Environmental Response, Compensation and Liability Act.

- Guiding criteria: The advice states that “guiding criteria imply a degree of flexibility and an expectation that the criteria will be expanded and refined.” Guiding criteria include ensuring that the highest risk contaminants (e.g. technetium, uranium) have solid and realistic risk mitigation options. The Board asked DOE to place a priority on dealing with mobile contaminants that drive long-term risks.

The advice lists more criteria under each section, and includes an appendix with a more detailed discussion about each criterion. In a related action, the Board in June approved a letter to DOE-RL asking them to apply the same systems criteria approach described in the advice to cleanup of the Central Plateau and River Corridor.

Need for surface storage capacity for vitrified high-level waste (Advice #215)

The Nuclear Waste Policy Act requires that Hanford’s immobilized high-level waste be disposed of in a deep geologic repository. Advice #215, issued in February, recommends that DOE “use a systems approach for contingency planning at

“Our newest groundwater treatment system exceeded expectations with three times the treatment capacity. This system is helping us to meet our 2012 commitment to contain all chromium along the Columbia River.”

Dave Brockman, DOE-RL manager



Board members Pam Larsen and Mike Keizer listen to a TPA agency presentation at a Board meeting.

Hanford on the basis of a deep geologic repository not opening on schedule.” The Board believes this would require extensive systems and lifecycle analyses of viable scenarios for surface storage of high-level waste at Hanford. The Board stated that “this storage capability must be sufficiently robust to store waste for decades, but not permanently. Ecology should permit the facility for a time period which obliges DOE to move forward with deep geologic disposal before storage risks increase.” The Board reiterated that high-level waste storage activities should not adversely impact tank waste treatment operations.

TPA modifications, including the lifecycle scope, schedule and cost report, proposed consent decree and TPA modifications (Advice #216, #223, and #224)

Throughout 2009, the Board closely followed negotiations to modify the TPA and produced three pieces of advice: Draft TPA Change Packages (Advice #216), Lifecycle Cost and Schedule Report of the Proposed Consent Decree and the TPA Modifications (Advice #223), and Proposed Consent Decree and TPA Modifications. See page 8 for more information about changes to the TPA.

Advice #216 was issued in April after the Board held a

Committee of the Whole meeting to review proposed changes to the TPA. The Board expressed its support for new groundwater remediation milestones, but was concerned about proposed delays to other milestones. The Board advised the TPA agencies to revisit and attempt to move up some of the proposed delayed milestones. The advice asked the agencies to:

- Accelerate cleanup along the Columbia River and groundwater cleanup on the Central Plateau with more specific goals than simply containing contamination.
- Resume retrieval and certification of transuranic waste and treatment of mixed waste.
- Accelerate PFP removal and characterization and cleanup of two large burial grounds (200-SW-1 and 2).

The Board supported adopting milestones for a new strategy to address Central Plateau area soil units and reach remedies that achieve unrestricted cleanup standards (DOE-RL later released the CP Strategy in September, see page 4). The Board also advised that unenforceable target dates and goals should not replace milestones.

The TPA settlement package with the proposed consent decree and TPA modifications will require DOE-RL and DOE-ORP to present project specific cost, assumptions, and data in a lifecycle scope, schedule and cost report. In Advice #223, the Board advised how the TPA agencies should describe the report in the settlement package. The report should provide more information on alternatives and assumptions for all cleanup projects, not just ones required by cleanup regulations. The Board also advised DOE to provide project specific costs, assumptions, and schedules for work beyond two to five years in the cleanup schedule. The Board is consistently interested in finding ways

to accelerate cleanup. Advice #223 advises DOE to provide enough information in the lifecycle report to be able to determine if cleanup work and milestones can be accelerated. The Board asked DOE to update the report annually and provide enough information for the public to assess if proposed delays to TPA milestones could be avoided if budgets were not constrained or if work were reprioritized. The Board believes public values should be reflected in DOE’s baseline assumptions for accomplishing cleanup.

In response to the TPA agencies reaching a

“The security gates are down at the Plutonium Finishing Plant! Some 20 tons of plutonium-bearing material in various forms have been stabilized, packaged and shipped to Savannah River Site in South Carolina.”

Dave Brockman, DOE-RL manager



Debra McBaugh, Washington State Department of Health and ex-officio member of the Board, listens at a Board meeting.