Hanford Advisory Board Progress Report Fiscal Year 1996

Providing Advice on Site Cleanup and Waste Management to the U.S. Department of Energy, U.S. Environmental Protection Agency and the State of Washington, Department of Ecology

A Sumary of Stakeholder Accomplishments and Expectations

Although the Hanford Advisory Board members represent diverse, competing interests, these stakeholders have agreed upon common values and goals for cleanup. Now they work together as shareholders investing time and resources in a necessary, expensive, dangerous and very long term enterprise called cleanup. On behalf of the public, they expect a future return on the investment: a clean, accessible, environmentally safe and economically viable site.

Merilyn Reeves, Chair The Hanford Advisory Board November 17, 1996

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Message from the Chair



The Hanford Advisory Board supports actions that accelerate cleanup, manage wastes safely and get the job done cheaper while protecting workers, the environment and public health. There has been significant progress on these objectives during the past year.

Soil cleanup along the Columbia River (in the old reactor areas) has begun in earnest now that the Environmental Restoration Disposal Facility, a state-of-the-art, environmentally safe burial ground, is open. We believe that most of the surface area along the River can be cleaned up by 2006. Restrictions are likely to remain on use of groundwater.

Removal of the corroding spent nuclear fuel from K-Reactor storage basins, which are within a quarter mile of the Columbia River, continues ahead of schedule. Liquid wastes from cooling and operations are now properly treated. Discharge of contaminated liquids to the soil has

virtually ceased.

Work to clean out and close some of Hanfords large industrial facilities has been accelerated. This work reduces the mortgage the annual operating cost required to baby-sit these old facilities. The dollars saved can be spent on other critical cleanup needs.

Secure shutdown of the Plutonium-Uranium Extraction Plant (PUREX) was completed in 1996, reducing annual maintenance costs from \$35 million to \$2 million. Major strides will be made in the coming year to close down the Plutonium Finishing Plant (PFP) and B-Plant.

Much has been done, but much remains to do. Prevention of contamination of the Columbia River by groundwater migrating from Hanfords old facilities is a primary concern. The Board has supported pump-and-treat operations where they appear effective in preventing the spread of contaminants toward or into the River. The contamination in the vadose zone the soil below the surface but above the water table requires further study.

Monitoring, managing and final disposition of the dangerous long-lived radioactive and chemical wastes in 177 huge underground tanks remain the biggest challenges to Hanford cleanup. Progress has been made on stabilizing tank wastes, and the Department of Energy has let two privatized contracts to develop pilot-scale vitrification plants.

Finally, the Hanford Advisory Board has been providing valuable advice helping the Tri-Parties find solutions to the myriad of technical, financial, regulatory, and other problems that beset one of the most complex and dangerous cleanup jobs in the Western Hemisphere. The agencies have learned that work can proceed faster and cheaper if citizens understand the issues and have the opportunity to provide advice before decisions are locked in. Public involvement in Hanford cleanup is not a frill; it continues to contribute to accelerated cleanup at lower cost.

History of Hanford: From Production to Cleanup

The secret development of the atom bomb during World War II brought the Army Corp of Engineers to the Columbia Basin in 1942 in search of a place to build a factory for the production of a key component of a nuclear reaction plutonium. The selection team was looking for a site where facilities could be built on a large and remote tract of land; where no towns of 1,000 or more people were closer than 20 miles from the hazardous area; and where no main highway, railway or employee village was closer than 10 miles. In addition, an abundant supply of clean water, a large electric power supply and ground that could bear heavy loads were essential site characteristics.

At that time, the Hanford area was neither highly developed nor populated. Only about 19,000 people inhabited Benton and Franklin counties with 3,900 (almost a fourth) of that population residing in the railroad town of Pasco. About 3,000 people resided in other small towns and the rest of the population lived on regional farms. The Corps concluded that of all the possible sites, this area surrounding the small farming town of Hanford, Washington, best met the criteria.

After the site was selected, an enormous amount of construction occurred in a minimal amount of time. In two and a half years, 554 buildings not dedicated to living space were constructed.

Among these were the B, D, and F reactors; T, B, and U processing canyons; 64 underground high-level waste storage tanks; and many facilities dedicated to fuel fabrication in the 300 area near Richland. In addition, 386 miles of roads, 158 miles of railroad, 50 miles of electrical transmission lines, four step-down electrical substations, and hundreds of miles of fencing were constructed. The new government city of Richland was built, providing homes for 17,500 construction and plutonium manufacturing workers and their families. All of this was accomplished at a cost of \$230 million.

Although the war years provided a boom for the area, this prosperity was followed by a two-year production lull. From September 1945 to December 1946, the number of contractor personnel was cut in half. In 1946, William L. Borden, a student who later served on the Atomic Energy Commission, published a small book (*There Will Be No Time*) arguing that in the event of an atomic war, there would be no time for defense preparations once hostilities had begun. Borden and other scientists argued that weapons stockpiling should begin immediately an idea that began to gain wide support among public officials and some civilians. In January 1947, the new civilian Atomic Energy Commission took control of the U.S. atomic complex, including the Hanford site, and declared weapons research and production to be the highest priorities.

Between 1947 and 1949, the largest peacetime expansion of weapons capabilities in American history occurred at Hanford as the Cold War began. During this time, the H and DR reactors, and the Z plant, also called the Plutonium Finishing Plant, were built. The Hanford Atomic Metal Trades Council was now formed, and the city of Richland grew from 17,500 people to about 23,000. Production and research and development became the main efforts from then on.

In 1964, as nuclear weapons bans began to be discussed in earnest, President Johnson slowed the manufacture of nuclear materials and the production activity at Hanford began to decline. Finally, in 1986 there was a shift away from the defense production mission at the site to one of waste management and cleanup of the site. In that year:

- The Department of Energy made public thousands of documents showing there had been off site re-leases of radiation, as well as considerable contami-nation of the site.
- The Chernobyl disaster heightened public concern about all things nuclear and led to the shutdown of Hanfords last production reactor for weapons material, the N Reactor.
- Selection of Hanford as a finalist site for a high level nuclear waste repository further raised public awareness of, and concern about, all aspects of Hanfords nuclear operations.
- Washington voters, through a referendum, rejected using Hanford as a high-level nuclear waste disposal site by an 82.5 percent vote.
- The Department of Energy published its draft Hanford Defense Waste Environmental Impact Statement, making clear to the public the extent and variety of wastes requiring management. Its framework for dealing with major categories of wastes remains, with modifications, the basis for the Tri-Party Agreement.
- Congress, the courts, and the Washington Legisla-ture clarified the States authority to regulate hazardous wastes at Hanford.

Hanford's contaminated soil and groundwater areas were placed on the Superfund National Priority List in 1989. The same year, the Tri-Party Agreement (TPA) was signed by the U.S. Department of Energy (DOE), the U.S. Environmental Protection Agency (EPA) and the State of Washington Department of Ecology (Ecology). DOE manages the site and is responsible for

the cleanup; EPA regulates under Federal statutory requirements; and Ecology regulates under state requirements where Congress and EPA have delegated the authority. The original TPA established milestones and a schedule for cleanup and restoration of the Hanford site over a 30-year period.

The waste legacy and the general expectations of what will be done with it are:

- Tank wastes. The highest hazard and largest concentration of radioactive waste on site is the approximately 55 million gallons of liquid, sludge and salt cakes in 177 underground tanks. The high level fraction of the materials left from nuclear fission will be vitrified (made into glass) and disposed of in a deep geologic repository. The remaining wastes will be retrieved, vitrified and disposed of by near-surface burial at Hanford.
- Other solid wastes. Spent nuclear fuel and encapsulated high-level radioactive wastes are planned to go to a deep geologic repository. Stored transuranic (primarily uranium and plutonium-contamiated) wastes are planned to be repackaged and sent to the Waste Isolation Pilot Plant (WIPP) expected to open in New Mexico. Hazardous non-radioactive wastes will be sent off site for disposal. Low-level radioactive waste generated at Hanford will be disposed of onsite.
- **Liquid wastes.** The discharge of liquid wastes to the ground has been stopped. Ongoing liquid waste streams are being treated to meet stringent standards.
- Contaminated areas. Old contaminated sites, where contaminated liquids were
 discharged or leaked to the soil or groundwater, or where solid hazardous materials were
 buried, will be cleaned up primarily under the Superfund law. Soils excavated from these
 sites will be disposed of in the Environmental Restoration Disposal Facility (ERDF)
 adjacent to the 200 areas in the Central Plateau. Remedial actions for highly
 contaminated groundwater plumes are under way.
- **Old facilities.** Old reactors and processing plants will be transitioned. Contaminated materials and systems requiring expensive maintenance will be removed, and the buildings will be safe-stored until torn down and removed. This reduces the mortgage incurred by maintaining the facilities and their contents.
- Waste management facilities. Both existing and new waste management facilities on the site will eventually be closed in accordance with state and federal laws that protect people and the environment.

The Department of Energy (which now oversees the site) has entered into a new age of openness, which includes more public participation. In 1992, the Future Site Uses Working Group (FSUWG), a broadly representative group of stakeholders in the region, was convened by the Tri-Parties to identify potential future uses of the site and recommend cleanup strategies. A similar group, the Tank Waste Task Force (TWTF) was involved with renegotiating the program for retrieving and vitrifying tank wastes in 1993. The two groups developed consensus on underlying principles and values for the overall cleanup of Hanford, as well as making specific recommendations on cleanup strategies.

Based on the experience with the two previous task forces, the USDOE, Ecology and EPA agreed to form a standing site advisory board to continue to shape the overall direction of

Hanford cleanup. The Hanford Advisory Board (HAB or the Board) was convened in January 1994. It adopted the values and principles of the two previous task groups and continues to build on and implement them. It provides a forum for seeking a regional consensus on Hanford cleanup activities. It works with the Tri-Parties to establish and maintain partnerships, build bridges, increase trust and credibility, and most of all, to solve problems and move the cleanup forward.

The Board issued its first Progress Report, Tracking the Hanford Cleanup, Fiscal Year 1995, in February 1996. That report documented the Hanford legacy of wastes and the sites change from production to its new cleanup and waste management mission. It described the evolution toward government openness and public participation in the decisions affecting that mission. The Boards 1995 report described the complexities it faced in reaching agreement on the correct cleanup path and the value of bringing diverse groups together in the HAB. It summarized the Boards consensus advice given to the Tri-Parties through June 1995.

This second Progress Report builds on that first report, yet stands alone. It describes the HABs expectations for cleanup in the next 10 yearsits Vision for 2006, then sets out highlights of the work the Board undertook in fiscal year 1996 to move toward that vision. The last section highlights the current Board members and their alternates who have given countless hours to this work, and includes a summary of the Boards evolution and operations. This Report is intended not only to serve as a reminder of their accomplishments to those who have worked on and with the Board, but to make the Board more user friendly to others, and to encourage their support and participation.

Stakeholder Vision for the Hanford Site By the Year 2006

The Hanford Advisory Board closed FY 1996 with its September meeting in Kennewick, Washington at which AI AIm, DOE Assistant Secretary for Environmental Management, met with the Board about the DOE Ten Year Plan being developed for all nuclear waste sites. The intent of the Plan is to encourage breakthrough thinking on achieving cleanup faster, quicker, and smarter with a major part of the cleanup completed by the year 2006. The plan is intended to provide a rationale for level funding to achieve the cleanup goals. The HAB chair, Merilyn Reeves, presented to Mr. Alm the Boards vision of what the Hanford site should be like in 10 years, based on the breakthrough thinking of the regions stakeholders over the past few years. The following pages present a summary of that vision, tied to the existing problems.

The Stakeholders Vision is of a Clean, Accessible, and Healthy Environment that:

- Protects the health and safety of the affected communities and the workers at the site.
- Protects the Columbia River and the environment.
- Prepares the site for future productive uses and contributes to the economic transition away from the dominance of USDOE-funded activities to those that are more privately sponsored.
- Fosters economic prosperity through scientific research and innovation in the development and testing of waste management approaches and cleanup technologies that can have benefits locally and worldwide.
- Respects the treaty rights of the affected American Indian Tribes.
- Assumes moving resolutely forward through use of existing technology and resources where solutions exist, and through focused research and development of solutions where

they do not.

• Acknowledges that cleanup work at Hanford will not be completed in 10 years.

Stakeholders Vision: River Corridor/100 Area

Problems and Risks In the River Corridor	Key TPA Milestones In the River Corridor	Stakeholders Vision for 2006 In the River Corridor	Beyond 2006 Stakeholders Values and Principles In the River Corridor
Contaminated soils Contaminated ground-water K-Basins contain spent nuclear fuel unsafely stored with its associated basin sludge and contaminated waters Old reactors	Cleanup of soils to residential standard (CERCLA Record of Decision from September 1995 commits to cleanup of soils to a residential standard) Groundwater cleanup of hot spots that are affecting the Columbia River Initial reactor cleanup and removal schedules to be negotiated by December 1996 (Draft Agreement in Principle extends the due date to March 1997)	Soils cleaned up to residential standards in the areas surrounding the reactor cores Groundwater: work in progress to contain and reduce the mass of contaminants; awaiting development of new cleanup technologies Institutional controls will be defined	Complete cleanup of soils to residential standard Cleanup of groundwater to unrestricted status Removal of reactor cores

Stakeholders Vision: Columbia River

Problems and Risks	Key TPA Milestones	Stakeholders Vision for 2006
The K-Basins along the River contain spent		River is protected from contamination from the

nuclear fuel unsafely stored, along with its associated basin sludge and contaminated waters

Contaminated soils within 1/4 mile corridor to the Columbia River restrict access to the River and its banks

Potential impacts of contaminated groundwater to the Rivers water quality, threatening biological integrity of spawning beds, downstream drinking water and irrigation supplies, and recreational uses

Columbia River will be based on results of the Columbia River Comprehensive Impact Assessment, due in December 1996 (Document expected to be released for public comment in March- April 1997)

Hanford site

Public access is not restricted because of residual contamination

Pipelines and islands remediated

Stakeholders Vision: All Other Areas

Problems and Risks	Stakeholders Vision for 2006	Beyond 2006 Stakeholders Values and Principles
Contaminated soil sites Groundwater contamination reaching the Columbia River Developed areas near Richland contain numerous old facilities	300 Area: Soils cleaned up for industrial use 1100 Area: Cleaned up and deleted from Superfund list (completed September 1996) Arid Lands Ecology Reserve: Pristine - no contamination North (Wahluke) Slope: Completely cleaned up (completed September 1995) All other areas: Soils cleaned up to residential	Groundwater remediation Land available for appropriate uses

standards	
Institutional controls for ground-water contamination available for other uses	

Stakeholders Values and Principles Related to the 10-Year Plan

- The DOE must continue to meet its TPA obligations which go beyond 2006
- DOE must provide financial and technical resources beyond 2006 to complete cleanup at Hanford
- The Integrated (national) 10-Year Plan must not adversely impact Hanford progress
- Stakeholders, tribal nations, citizens must have clearly defined opportunities to participate in the development of the Integrated 10-Year Plan
- DOE must proceed with a National Equity Dialogue to address such unresolved issues as plutonium disposition and intersite transfer of waste

Stakeholders Vision: Central Plateau/ 200 Area

Problems and Risks	Key TPA Milestones	Stakeholder Vision for 2006	Beyond 2006 Stakeholders Values and Principles
The Central Plateau is unique in that it has been identified as a waste management area for the foreseeable future. It contains numerous areas of contaminated soils and is the location for the 177 underground single and double shell tanks containing 55 million gallons of radioactive waste Containment and reduction of the mass of vadose	Beginning of vitrification and resolution of tank waste issues Groundwater: work underway to contain and reduce the mass of contaminants Waste site investigations completed by 2008 There is no cleanup standard for such an area; the assumption is that it will ultimately be	Beginning of vitrification and resolution of tank waste issues Sitewide integrated vadose and groundwater management plan being implemented Facilities transitioned as much as possible, reducing costly mortgages Integration and identification of all waste systems	Waste management, storage and disposal activities in the 200 Area and immediate vicinity should be concentrated within the 200 area whenever feasible to minimize the amount of land devoted to or contaminated by waste management activities Waste and contaminants within the Central

zone and groundwater contamination is a key issue because of the potential risk contaminated groundwater poses to the Columbia River Large contaminated facilities	cleaned up to permit industrial uses	Continuing commitment to clean up and manage the long-term wastes	Plateau should be treated and managed to prevent migration from the 200 Area to other areas and/or off site Institutional controls for the foreseeable future
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Translating Vision into Reality: A Work in Progress

Highlights of HAB Work in 1996

The Hanford Advisory Board held eight two-day meetings in Fiscal Year 1996, and tackled an extensive and complex agenda. Committees met countless hours between sessions, and members reviewed mounds of paper to be able to raise informed questions and focus key issues. From October 1995 through September 1996, the HAB produced 22 new pieces of consensus advice (making a total of 53), produced a report and recommendations on strategic planning issues, numerous pieces of sounding board advice, and engaged in on-going dialogue with the Tri-Party Agencies.

Following are the highlights of the Boards work during the year, along with a brief description of the impact it had or the current status of the issue. The work is organized by the specific geographic areas of the site, with a separate section devoted to the overarching or sitewide issues. This format parallels the Stakeholders Vision of the previous pages in order to provide a baseline from which to document and evaluate the progress being made each year.

Values adopted by the Board and the previous stakeholder groups provide a basis for the Boards current work. These values are summarized in the FY 1995 Progress Report, and were simplified into the following ten key principles guiding cleanup in Hanford in context: public principles guide new mission, the Context paper prepared for use in the strategic planning process undertaken this year.

Key Principles Guiding Cleanup

- Protect public and worker health and safety.
- **Protect the Columbia River.** Stop actual and potential contamination of the Columbia River and prevent migration of contamination off site.
- Avoid further harm. Minimize use of land for waste management, avoid contaminating uncon-taminated land, and avoid further damage to critical resources, especially cultural resources, habitat and groundwater.
- **Dilution is not the solution.** All liquid wastes need to be treated according to applicable

regula-tions prior to discharge or disposal.

- **Treaty rights.** Preserve natural resource rights embodied in treaties, and enforce laws protecting natural and cultural resources.
- **Regional importance.** Hanford has ecological, economic and human resources of regional importance.
- **Vision.** An understanding of possible future uses of Hanford can focus decisions about what manner of cleanup is needed and what is most important to accomplish over time. The public, the agencies and the workers should be able to see the end of the cleanup, if not predict its exact date.
- "Get on with it." Demonstrate substantive progress on cleanup to assure continued public support and funding.
- Public involvement and accountability. Involve the public and respect tribal rights in development of the goals, scope, pace and over-sight of cleanup, and establish management practices that ensure accountability, efficiency and allocation of funds to high-priority items.
- Compliance culture. There should be a cooperative commitment to comply with environental laws. The Tri-Party Agreement should not become a shield against enforcement of other laws.

Area Specific Highlights of 1996

RIVER CORRIDOR/100 AREA

For clarity and consistency with the public, the HAB recommended that the definition of this area should include the reactors, outfalls and pipes, spent nuclear fuel, soil and burial grounds, liquid discharge sites, and groundwater and recommended changing the name from Reactors on the River to River Corridor.

Impact: Agencies agree on definition for communication with public; DOE management uses more specific breakdowns that will be continued, to designate areas within the 100 Area.

Cleanup Goals and Priorities

The HAB reaffirmed the cleanup goals for the Columbia River Corridor:

- Continue addressing the most urgent risks first.
- Do no harm to the environment during cleanup.
- Institutional controls cannot be substituted for cleanup, and must be defined.
- The goal for <u>Soils</u> is unrestricted surface use.
- The goal for <u>Groundwater</u> in the long term is still unrestricted use in this area. The HAB
 recognizes that due to existing conditions and lack of current capabilities, cleanup of
 groundwater may not be feasible until aggressive research develops new capabilities.
- The budget advice opposed elimination or reduction of cleanup work in the 100 Area.

Current Status: The Environmental Restoration Disposal Facility (ERDF) opened this year ahead of schedule, largely due to the HABs earlier advice that it was needed for cleanup and

construction should proceed. This has allowed the actual removal of contaminated soils from the 100 area to begin. Controls for groundwater will be needed in the foreseeable future.

Reactors

The HAB acknowledged the TPA goal of ultimate removal of reactors. It asked to be kept informed about issues emerging in the TPA negotiations now underway to set the timetable for moving the reactors, and it supported action to put C Reactor into an interim safe storage level and to assess this application for use with other reactors.

Current Status: DOE is proceeding with the Demonstration Program on C Reactor to get it to an interim safe storage state, by removing all but the reactor core. TPA negotiations on the removal timetable for all the reactors have just begun. The agencies will work with HAB as issues are identified.

K Basins/Spent Fuel

The HAB has continually supported the removal of the spent fuel from the K Basins near the Columbia River on a high priority basis. The Health, Safety, and Waste Management Committee works closely with the Program Managers to help resolve problems that could impede progress. The HAB has emphasized that funding priority must be given to this project.

Impact: This project has been receiving the funding needed to keep it moving on schedule. Although some delays have occurred, stakeholders are being kept informed on a regular basis, and the overall project remains ahead of schedule.

Pump and Treat Operations

The HAB recommended continuation of and funding for the successful pump and treat programs for strontium-90 and chromium remediation in the 100/Area, which were slated to be cut in FY 1996 reallocations and were not funded in the draft 1998 budget proposal. The Board urged funding for the N Springs pump and treat upgrade. The HAB acknowledged the possibilities of protection for the Columbia River offered by the experimental subsurface absorbant wall at N-Springs, but urged that funding for the proven successful pump and treat programs not be diverted to such an experiment.

Impact: These pump and treat programs have been continued and proposed funding was restored in the 1998 budget submittal. The treatability test with the barrier wall is uncertain.

COLUMBIA RIVER

The HAB continues to reaffirm its goal of protecting the Columbia River. The HAB expects cleanup to ensure that access to the river and its corridor (1/4 mile on either side) is not limited due to surface contamination. This means that the 1301 crib found in the N Reactor area must be cleaned up to allow unrestricted surface access.

Current Status: DOE is working with the Natural Resource Trustees on a Biological Resources Management Action Plan to assist in doing no harm. Negotiations for the cleanup level for closure of the 1301 crib are underway between DOE and Ecology. DOE recognizes the HAB value and will work with HAB, but has not agreed to clean the crib to a residential standard,

due to its concern about the risks to workers.

Existing Impacts to the Columbia River

Stakeholders have consistently requested information on the existing impacts to the Columbia River, and the HAB has provided representation on a work group which is defining the studies and data needed. The HAB advised DOE to be prepared to request supplemental funds to implement recommendations coming from the study and will monitor the issues and needs associated with the work.

Current Status: The HAB received a status report on the Columbia River Impact Assessment Study, Phase 1. The Phase 1 Study should be available for public comment in Spring 1997.

ALL OTHER AREAS

300 Area Cleanup Plans

In February 1996, the HAB supported the proposed plan for cleanup of the 300 FF-5 Operable Unit, which included natural attenuation as the preferred alternative for the groundwater because of its minimal impact to human health and the environment. Board members expressed some concern about accepting this alternative, and one member asked that it be noted that he preferred a small scale pump and treat option, but would not block the Boards consensus. There was no consensus on the preferred alternative for the 300 FF-1 Operable Unit due to a split over whether the area should be cleaned only to an industrial standard.

Current Status: A record of decision was issued for the natural attenuation of the groundwater and cleanup of the soils to industrial use standards. These decisions are required to be revisited at least every five years, as this is an interim action.

Cleanup Work in 300 Area

The HABs Budget advice opposed the elimination or reduction of cleanup work in the 300 Area. It urged funding of the accelerated schedule for deactivation of designated 300 Area facilities and opposed reductions in well decommissioning and alternative monitoring techniques.

Impact: DOE worked to reduce costs and apply funds to these items. The 300 Area fuel supply shutdown tasks had to be delayed as they were not as critical as others. The first removal of any DOE site from the national superfund list has just occurred with the 1100 area.

CENTRAL PLATEAU (200 AREA)

Waste Migration

The HAB has consistently expressed concern that waste must not migrate from the Central Plateau, and that wastes must be managed to minimize worker and public exposure. Suitable long-term engineered controls and barriers <u>may</u> be appropriate for the wastes in this area. The HAB is currently involved in working with the Agencies on issues relating to entombment and capping waste in place, and has supported undertaking a study of the idea of entombment of

waste in 200 Area Canyon buildings.

Current Status: DOE is currently working with regulators and HAB to develop a 200 Area Remediation Strategy to provide an integrated approach to the remediation efforts in the 200 Area. The 200 Area Canyon Disposition Initiative is undertaking a review of the issues around entombment of waste in the Canyon buildings.

Integrating Waste Streams

The HAB worked consistently over more than a year to assist the Agencies to fulfill the commitment in the TPA to establish new milestones for the acquisition of new facilities, modification of existing facilities, or modification of planned facilities for treatment, storage and/or disposal of solid waste materials based upon the results of the Site Wide Systems Analysis. The HAB identified the need for an authoritative estimate of the nature and size of the various waste streams, buy-in to the planning process by the owners of programs generating and/or managing solid waste streams, integration in dealing with waste streams, and understanding of public values bearing on this issue. The HAB advised the Agencies to delay their time schedule long enough to develop a plan that would be accepted and truly effective.

Impact: A change package has been negotiated and adopted, adding milestones to the TPA which are supported by the Agencies and the stakeholders, and are seen as an effective guide to the treatment, storage and disposal of solid wastes at Hanford in a more cost effective manner. The milestone development process became a catalyst for beginning the effective integration of programs/projects dealing with the same waste streams. Discussions among all concerned resulted in better appreciation of the publics concerns and objectives, and in a more effective plan.

Contaminated Groundwater

The HAB emphasizes treating and/or containing contaminated groundwater so that it does not migrate from this area to pollute other areas or move toward the Columbia River. It has in the past supported continued funding for the Groundwater Treatability Testing at 200 UP-1, which is a pump and treat operation that treated the water onsite and reinjected it into the aquifer. In September, it supported the change from onsite treatment to treating the water in the Effluent Treatment Facility (ETF) which is now operating and can remove additional contaminants such as nitrates. In December 1994, the Board endorsed continued action on the carbon tetrachloride pump and treat project, and gave criteria for measuring results/success. The HAB continues to support the project and its funding.

Current Status: The Agencies are committed to contain the contaminated groundwater in the Central Plateau as much as possible. Groundwater in the 200 Area is currently contaminated and some has moved beyond the 200 Area. DOE is continuing the Groundwater Treatability Testing. A Record of Decision is expected for 200-UP-1 to treat water in the Effluent Treatment Facility. In addition, a 150-gallon-per minute treatment system is operating to remove carbon tetrachloride groundwater contamination. This project is being done in conjunction with a vapor extraction system that is removing carbon tetrachloride vapors from the soil, and has removed over 150,000 pounds since its inception in 1992.

Vadose Zone Contamination

The HAB has urged the DOE to identify and characterize contamination of the vadose zone under the tank farms, and to assess the risks to the Columbia River. The Board advised DOE to fund a third bore hole in FY 1997 in addition to the existing well logging program, to continue consultation with the independent expert panel and to form a steering panel to advise on components of the vadose zone characterization program.

Current Status: Cesium has been identified below some of the single shell tanks. Existing bore holes are being used to identify the type and extent of contamination, and a program is being designed to characterize and assess the risk of vadose zone contamination.

Tank Waste Remediation System (TWRS) -- Environmental Impact Statement

The HAB Chair and two members attended a TWRS EIS hearing held in Washington, D.C. in May 1996 and also met with the Environmental Management Advisory Board (EMAB) there to give comments on the TWRS EIS and the program. While the Board supported the concept of complete retrieval and vitrification of the tank wastes for disposal in waste repositories, the Board questioned the need for the EIS. In addition, they expressed concerns about the EISs reliance on privatization, the EISs impact on TPA milestones, and delays to the program caused by the EIS. They pointed out the difficulty in relying on the data regarding groundwater movement which supported the analysis, when it is inconsistent with data being used in the Hanford Remedial Action EIS. They urged more integrated approaches to analyses of the site.

Impact: The final TWRS EIS is expected to result in a formal Record of Decision to retrieve and vitrify the tank wastes through privatized phased implementation. DOE is moving toward an integrated approach to analysis of groundwater on the Hanford site.

Tank Waste Remediation System (TWRS) -- Privatization of Waste Vitrification

The HAB has been very concerned about the concept of privatizing the vitrification of the tank wastes, and has been working closely and intensely with DOE and the regulator agencies since the concept was proposed. The HAB considers the need to move forward with the disposition of the tank wastes one of the most critical needs on site. It considers the current privatization effort a strategy that has a high risk of failure, and adopted advice opposing the current strategy. Nevertheless, the Board has continued to work with the Agencies to move the process forward and minimize the risk. It has insisted on an alternative path in the event of failure of the private contractors, and on a role for the stakeholders and specifically Ecology, in determining when failure has occurred and when the alternate path should be invoked.

Much of the concern has been with the concept that a privatized approach is assumed to be a financing method that will save money and not require the government to make a huge upfront investment in the vitrification plants. The HAB has not been convinced that this is true. The Board has also been critical of the government reserve required to be budgeted each year to be used in the event of contract cancellation and for the purchase of the product (the vitrified waste) from the private contractors if they are successful. This reserve fund is close to the cost of making an investment in a plant. The HAB did not want the requirement for this huge fund to reduce funding available for on going cleanup on the site, and was not convinced that the setting aside of such funds was really necessary. The HAB has asked DOE to look at some sort of national insurance pool or combined reserve fund for all sites privatization efforts, to provide for the requisite backup fund, but not at 100% of the amounts needed at all sites. Additionally, the HAB has asked the DOE to separate this fund from the cleanup budget, and

to request the funds needed for cleanup to go forward, without considering these set aside funds.

Current Status: The first phase of two privatization contracts to develop pilot-scale vitrification plants were awarded in September 1996. The TPA has been amended to incorporate the process, and included specifics about an alternate path and a role for Ecology in recommending the shift to the alternate path. Al Alm, DOE Assistant Secretary for Environmental Management, looked into but refused to pursue the national insurance pool concept. DOE is requesting and is so far receiving budgets that maintain current cleanup levels with the set aside fund being an additional amount. Congress reduced the amount of the set aside fund in the 1997 Budget and recommended specific other uses for the money removed. DOE believes this amount will have to be replenished in the reserve fund. DOE has agreed to work closely with stakeholders as this process unfolds.

Tank Waste Remediation System (TWRS) -- Funding and Management

The HAB is convinced that the monumental task of monitoring, managing and at some point retrieving, treating and storing these dangerous tank wastes can be done in a more cost-effective manner. It has not had confidence in the TWRS numbers. It has neither been willing to support deletion or delays of significant steps needed for progress toward the goal of retrieval and vitrification (such as waste characterization) because of budget shortfalls, nor to reduce funding for essential safety upgrades. It has been pushing the program to find better, cheaper, smarter ways to do it. It has insisted on the priority of the program for funding, but also insisted on doing the job for less. The HAB gave specific advice on four major areas in which an improvement in performance by the TWRS program is necessary, and recommended that contract incentives be tied to such improvements. The four areas are: 1) complete and issue a safety basis for the tank farm operations; 2) conduct an independent cost review of the Multi-Year Program Plan; 3) develop a meaningful review of life-cycle cost of the treatment and disposal program; and 4) revise the characterization strategy and have it peer reviewed.

Current Status: Considerable refocusing of budget requests in TWRS took place as a result of HABs participation in the 1998 budget process. As the new fiscal year began, the reallocations based on the Congressional budget have left the TWRS Program with a significant shortfall for accomplishing its work scope in FY 1997. It anticipates the possibility of missing some TPA milestones for characterization. Management is concentrating on identifying and implementing all the cost efficiencies it can as quickly as it can. The safety basis for the Tank Farms is scheduled to be completed by November 1996, but the change in contractors could delay it. It has an organized approach underway to assess its practices and costs with an independent firm, Project Time and Cost. It is now using activity based cost estimating, and further refinements in the baseline are underway. The HAB and the regulators have been invited to participate in these reviews at whatever level possible, and will continue to work together to improve cost effectiveness. The characterization strategy has been revised and peer reviewed, but remains to be reconciled with the curent TPA commitments.

Facilities Transition

Advice on the FY 1996 budget reallocations expressed concern about delaying the implementation of recommendations on PUREX and requested information on the effect of this delay. General budget advice continued to support funding for facilities transition as an essential element of cleanup, and expressed concern about deferral of some projects in the FY

1998 budget proposal.

Impact: DOE was successful in implementing the recommendations on material stabilization. A plutonium and uranium solution was removed ahead of schedule, and cleanup of residual plutonium in PUREXs N Cell glove boxes was completed.

Overarching or Sitewide Issues Addressed

INTEGRATED VADOSE ZONE/GROUNDWATER MANAGEMENT

In February 1996, the HAB endorsed the strategy for remediation of groundwater stated in the <u>Hanford Site Wide Ground Water Remediation Strategy</u> and recommended that it be incorporated into the <u>Hanford Site Ground Water Protection Management Program</u>. The HAB subsequently urged that an integrated vadose zone/groundwater management plan is needed sitewide. The Board has insisted that the Agencies must work to resolve current uncertainties about contamination and migration in the vadose zone. The integrated strategy must identify future risk from the potential contamination of groundwater from sources like leaking tanks and existing vadose zone contamination.

Impact: Integration is occurring in management of Hanford Site Ground Water Protection Management Plan. Actions are being initiated to assure integration and coordination between TWRS and ER vadose zone monitoring and characterization activities. Funding is being sought for additional characterization of contaminants in the vadose zone under the tanks. Risk assessments are being done or scheduled, but are also dependent on funding.

Prevent Further Groundwater Contamination

The HAB has reiterated that DOE must use the basic principle of emphasizing source reduction and when that is not practical, using surface and subsurface barriers to prevent further groundwater contamination.

Impacts: The Agencies agree with this principle. DOE has eliminated discharge of liquid effluent to the sites as of June 1995. The potential use of barriers will be identified in the 200 Area Cleanup Strategy being developed.

STRATEGIC PLANNING AND TEN YEAR PLAN

From October 1995 through September 1996 the HAB was involved in working with DOE on issues related to its various planning documents: Strategic Plan, Mission Direction Document and the Ten Year Plan. Other related documents were also used: Strategic Thinking Draft, Comprehensive Land Use Plan and Hanford Remedial Action EIS draft. The HAB, through its Strategic Planning Task Group, attempted to relate the issues in each to publicly established values and goals from Future Site Uses Working Group and the Tri-Party Agreement, and to identify changes being proposed. The HAB decided during the process to focus on the issues rather than to try to comment on each document individually. The HAB made consensus recommendations in its Strategic Planning Workshop Report of May 7, 1996, reiterated some points in later advice, and continues to follow the specific issues in Committees. Only sitewide and general process issues are outlined here. Specific recommendations relating to geographic areas were integrated with the HAB work on each area.

Consistency and Common Terminology

The HAB pointed out the need for consistency in assumptions, data and modeling throughout the DOE planning documents. Consistent terminology must be developed, defined and used for discussions of cleanup and technology development.

Current Status: DOE has begun to coordinate the preparation of these documents so they will be consistent. It has agreed to work with the regulators and stakeholders to develop consistent terminology. It is not producing a revised Mission Direction Document for 1997, but will revise the draft as part of the 1999 budget development process.

Tri-Party Agreement

The HAB has consistently reiterated that the TPA is the blueprint and schedule for Hanford cleanup, and has urged the Tri-Parties to aggressively defend the TPAs integrity in the face of budget pressures to reduce or escape from the commitment to fully clean and restore the Hanford site. In FY 1996 the HAB advised that DOEs planning documents should treat the TPA as the key blueprint, and must acknowledge and support the schedules in the TPA. Therefore, DOE budget requests must be based on TPA schedules and commitments.

Impact: DOE has acknowledged its intent to do this <u>except</u> when constrained funding scenarios cause some plans to reflect paths forward which are not in compliance, or when it believes it has found a better way and will be asking for changes in the TPA. It has agreed to identify the additional funding required to comply with the TPA in cases of budget forced differences. DOE has also agreed to identify the plans or budget requests that are based on anticipated changes in the TPA. It has agreed to work with the Boards Dollars and Sense Committee to communicate those changed assumptions.

Institutional Controls

The HAB opposes the use of institutional controls as the long-term cleanup option for the majority of areas of the site. It recommended that DOE work with the HAB and the regulators to develop a better description of institutional controls and time periods when they may be necessary.

Current Status: DOE and the regulators are working with the HAB to develop definitions and descriptions.

DISPOSITION OF NUCLEAR MATERIALS AND RADIOACTIVE WASTE

Plutonium Disposition

The Board began FY 1996 by participating in the Plutonium Roundtable at its October 1995 meeting. It heard presentations by a panel of experts and a response panel on the disposition options for plutonium reserves, then participated in four breakout workshops. In December 1995 the State of Oregon presented its town meeting public involvement workshop on plutonium disposition to the HAB. The HAB recommended that DOE assist with financial support to make possible a Tribal Roundtable on plutonium disposition. The HAB has repeatedly advised the DOE to allow more time and locations for public meetings on the Storage and Disposition of Excess Weapons Useable Plutonium and Special Nuclear Materials

Environmental Impact Statement (known as the Plutonium Programmatic EIS). It submitted comments on the EIS, stating the Boards opposition to the bore hole option at Hanford, stating that permanent disposal of waste plutonium at Hanford is not acceptable, and stating a number of values that must be considered in any program to treat and temporarily store plutonium at Hanford. The Board urged that any decision be delayed until the disposition issues can be considered as part of a national dialogue on waste disposition. Additionally, the HAB urged in its budget advice that DOE-Headquarters proceed with a policy decision that large quantities of waste contaminated with plutonium are waste so as to allow an integrated approach to their storage, treatment and disposal as waste.

Current status: The Plutonium Programmatic EIS has not been delayed. DOE plans to issue a Record of Decision in the near future. Additional hearings in the Northwest were not scheduled. The Board has not received a response from DOE on any of its advice on this issue. DOE-HQ drafted a plutonium residue policy and DOE-RL has made comments. The policy is being finalized and DOE-RL will evaluate what, if any, changes it would require at Hanford.

National Equity Dialogue

Since February 1995, the HAB has been urging DOE to hold up decisions on individual EISs and on the Programmatic Waste Management EIS, relating to the disposition of nuclear materials and radioactive waste among the various DOE sites. It wants to establish a credible process, providing integrated information to allow the public to fully understand the interrelationships of the various proposals and to participate in meaningful dialogue about them. The HAB has also submitted a list of criteria to be met prior to importing any off site waste to Hanford for processing or for temporary storage. It has insisted that any such proposal include all the fully- burdened long term costs. It has urged DOE to integrate its decision-making process and to set national nuclear policy direction in an open national public forum involving all interested stakeholders. The HAB has proposed a National Equity Dialogue and suggested the key characteristics that must be part of such a dialogue.

Current Status: In October 1995, Thomas Grumbly, then DOE Assistant Secretary for Environmental Management, committed DOE to instituting such a process. Merilyn Reeves, Jeff Breckel and David Conrad from the Northwest serve on a national Planning Group providing advice to DOE on goals, scope, products, approach/process, participants and timeframes/schedule for the process.

GENERAL BUDGET AND MANAGEMENT ISSUES

The HABs involvement in DOEs budget development process has been one of its most significant achievements. DOEs budget and planning information has been opened to the public in unprecedented ways, and the HAB is clearly having an impact on budget decisions. In this fiscal year the HAB issued advice on both the FY 1996 budget reallocations required following Congresss late passage of the 1996 budget, and on the Richland sites submittal for the 1998 DOE budget request. The portion of that advice which related to specific area programs were referred to in discussions of those areas. Portions of the advice having broader application are highlighted here.

Using Risk Data Sheets and Integrated Priority List

In 1995, DOE began to focus on risk based priority setting, and formed a Risk Data Sheets (RDS) Consistency Team to rate the elements of the scope of work proposed for the 1998 budget year. The HAB worked with DOE throughout the RDS and the budget development process. The HAB advised DOE that its Integrated Priority List (IPL) (which combined the RDS ratings with other criteria to produce the budget priorities) needs to have some kind of reproducible criteria to explain the priorities, and that the RDS ratings do not appear to provide it. They also requested that the IPL include a description of what is occurring in each project listed, so that stakeholders can get a better idea of what workscope DOE is prioritizing. The HAB advised DOE that the Board will not endorse specific priority rankings by DOE and will not do a stakeholder ranking. It instead will comment on DOEs budget planning relative to the HABs adopted values, advice and cleanup goals. It specifically requested DOE to remove the column from the IPL called stakeholder ranking.

Current Status: DOE has indicated it will not be using the RDS process in its 1999 budget development (which begins in December 1996). It has agreed to work with the stakeholders to more clearly identify the workscope reflected in the priority list, and will be working closely with the HAB to engage stakeholders in the budget prioritization process in a meaningful way. It removed the stakeholder ranking list from the IPL.

Cost Savings Initiatives and Independent cost reviews

The HAB continues to support DOEs cost savings initiatives across the programs to recommend how to provide necessary indirect functions and services at optimum cost, and to challenge expenditures which do not directly serve the goals of cleanup. The HAB has continued to advise the DOE to establish a strong independent external cost review team. A similar team was recommended to review capital project costs. Emphasis has been placed on establishing an externally validated baseline from which true cost reductions can be measured, and on involving the HAB and the regulators in the process.

Impact: DOE has put an integrated Cost Savings Initiative in place, and agreed with the need for an independently validated baseline. It now has specific validation processes underway. The HAB has been specifically invited to participate in reports from the Project Time and Cost effort. The site is nearly totally converted to activity based cost estimating. Regulators are intimately involved in verifying the 1997 baseline, and a clear system for making changes in the baseline has been implemented.

Tracking and reducing overhead and support costs

The HAB has taken a leading role in urging DOE to make and achieve reductions in overhead and indirect support costs. It has worked diligently with DOE to get such costs released in a way that can be understood by stakeholders. It advised DOE to build anticipated or promised reductions into its budget projections, and to conduct functional reviews of the overhead costs, comparing them with service costs elsewhere. Additionally, when the 1996 reallocations were being made, the HAB advised DOE to require cuts in overhead and administrative costs in the same proportion as were required in program cuts. The HAB urges vigilant oversight of these costs as additional subcontractors are added due to privatization and the new management contractor.

Current Status: There has been considerable confusion in identifying the numbers associated with overhead and indirect costs because of different ways such costs are defined on site, at

different sites, and by the public. DOE, the regulators and the HAB Dollars and Sense Committee are undertaking a joint initiative to identify a better way to communicate the needed information. Additionally, DOE is taking actions to identify administrative and support costs by function regardless of whether costs are considered direct or indirect. The same functional cost data will be generated for different contractors so comparisons may be made. Although DOE cannot breakout overhead for each line item in the Integrated Priority List (IPL), it is working with the regulators and the Dollars and Sense Committee to add something to the IPL to identify what the impacts of overhead and indirect costs are to the budget proposal outlined in the IPL.

Assumptions Used in Budget and Planning Documents

The HAB advised the DOE that assumptions used in planning and budget priorites should be identified and consistent, and should be based on the TPA, on the current program (workscope) baseline and on other prior established public expectations or consensus values and principles that DOE had previously indicated it would utilize. The HAB identified significant inconsistencies and departures from prior planning assumptions in its review of the FY 1996 BEMR, MYPP and Site Level Assumptions, in the FY 1996 budget reallocations, FY 1998 Budget Guidance, and FY 1998 Budget draft decisions. Some of the departures were reflected in such things as extending the timeline for cleanup in some projections, identifying new endpoints and relying on interim safe storage for reactors and on entombment and capping of wastes. Assumptions should not be changed in planning documents without clearly identifying when, where and why they are changed, and without subjecting them to HAB review and public input so that the impacts on the TPA and on consensus values can be fully understood.

Current Status: The Board advice has resulted in a commitment and effort to get planning documents to be consistent, and to communicate more clearly about assumptions being used. DOE saw the identified departures from prior assumptions as being misunderstood or ones that were considered only in alternative analyses, but has been working with the HAB to identify and discuss any changes. It agreed to develop a process for identifying when assumptions are being changed and for including stakeholders in that process. It is also developing a clear management process for establishing the baseline and a process for changing it. Official planning documents will be based on the existing baseline, and will not be changed until or unless the baseline is officially changed. However, blue sky or breakthrough thinking has to be allowed and encouraged to happen as well. DOE will take care to identify when new assumptions fall into that category.

Project Hanford Management Contract

The HAB had an ongoing concern about the new Project Hanford Management Contract (PHMC) (formerly referred to as the Management and Integration contract) from the release of the first draft Request for Proposals (RFP) through the award of the contract to the Fluor Daniel Hanford team in July 1996. The Board initially expressed its disagreement with the fundamental approach of the contract in that it did not reflect stakeholder values. It has continued to express concern about the effect on workers and on cost reduction at the site. The HAB has urged full disclosure of all costs and has expressed concern that the contract lacks performance standards that emphasize cost efficiency and lacks strict incentives to control overhead, support and management costs. The layering of subcontractor costs and the achievement of goals related to establishing new businesses for the region are continuing concerns.

Current Status: The Board has met with the new PHMC team from Fluor Daniel, and the Committees are following up with them to understand the implementation steps and the various management plans being developed. The HAB intends to give input on the plans as they develop and will work to make the PHMC successful.

Taking Information to the Public

The HAB has had more focus this year on trying to assist the Tri-Parties to communicate more effectively with the public. Some members of the HAB in different areas have co-sponsored public events with the Agencies that have been quite successful. Members have also participated in quarterly meetings on TPA public involvement to give feedback and assist in identifying upcoming needs for Hanford cleanup public involvement that goes beyond the HAB activities. The Board has several times requested additional public involvement for key issues, and has made a specific recommendation for a national equity dialogue on waste disposition. Additionally, the Board gave specific advice on the TPA Community Relations Plan update, emphasizing that meetings should be held with the public only when their input is truly needed and will be used to influence decisions. The HAB advised the Tri-Parties to: require only one round of public meetings per year on the budget, although others are encouraged if useful; commit to providing relevant information; and jointly sponsor meetings. The HAB also advised DOE to incorporate stakeholder values in drafting the Ten Year Plan, to present and discuss the assumptions contained in the Plan in the course of the 1999 budget development process, and to discuss the cross-site issues related to waste disposition in the national dialogue.

Impacts: All of the HABs suggestions were included in the Community Relations Plan, which also acknowledged and included information about the Board. The Tri-Parties are committed to continuing the quarterly public involvement planning meeting and are trying a number of new approaches. Issues from the Ten Year Plan will be addressed in the budget process, and planning for the waste disposition national dialogue is underway.

HEALTH AND SAFETY RELATED ISSUES

Continuity of Safety Controls With Changing Contractors

HAB advice has requested assurance that needed safety controls will remain despite changing contractors and administrations.

Impact: DOE has assured that the new PHMC is designed to continue progress on health and safety issues. The PHMCs Health & Safety plan has already been presented to the relevant HAB Committee, which will work closely with DOE on issues related to the Plans implementation.

Training in Transportation and Emergency Management

The HABs budget advice specified that funding not be reduced for transportation safety and emergency response while shipments of radioactive and hazardous materials continue, and that evaluations of motor carriers transporting radioactive materials to/from Hanford not be decreased.

Impact: An emergency preparedness training was conducted for states and local emergency and transportation management officials in September 1996. Thomas Grumbly, Deputy

Secretary of DOE was the honorary Exercise Director. DOE assured that only motor carriers who had passed Motor Carrier Evaluations would be transporting radioactive and hazardous materials to/from Hanford.

Workforce Restructuring and Health, Safety and Dignity of the Hanford Workforce

In the face of the downsizing that occurred in 1996, the HAB advised the DOE to consider the effects on the health and safety of the stressed and demoralized workforce, and to consider offering an enhanced retirement program along with a phased departure schedule so as to keep skilled workers in the community to train their replacements.

Impact: DOE offered an enhanced retirement program, and the effects of the downsizing on the community and the workforce were somewhat tempered.

Acronyms Used in This Report

CERCLA Comprehensive Environmental Response, Compensation and

Liability Act (The Superfund Law)

DOE Department of Energy

DOE-RL Department of Energy - Richland

DOE-HQ Department of Energy - Headquarters, Washington, D.C.

Ecology Washington Department of Ecology

EIS Environmental Impact Statement

EPA Environmental Protection Agency

HAB Hanford Advisory Board

IPL Integrated Priority List (DOE)

PHMC Project Hanford Management Contract

RDS Risk Data Sheets

ROD Record of Decision

TPA Tri-Party Agreement

Tri- DOE, EPA, and the Washington Department of Ecology

Parties

TWRS Tank Waste Remediation System

Meet the Hanford Advisory Board

Who is the Hanford Advisory Board?

The Hanford Advisory Board is composed of 30 members, with the seats being divided to

represent 9 different interest areas. The interests include: Local Government Interests, Local Business Interests, Hanford Workforce, Local Environmental Interests, Regional Citizen, Environmental, and Public Interest Organizations, Local and Regional Public Health, Tribal Governments, State of Oregon, and Public-At-Large.

Chair:



Merilyn Reeves, from Amity, Oregon, is chair of the Hanford Advisory Board. She is a former Vice President of the League of Women Voters of the United States and has been an active leader of that organization. She currently serves on the University of California Berkeleys College of Natural Resources Advisory Board and the Oregon Building Code Structure Board. She has served on a variety of federal advisory boards, including the USEPA National

Drinking Water Advisory Council and the first USDOE Environmental Advisory Committee.

Local Government Interests (7 seats):



Ben Floyd, Richland, is the Hanford Coordinator for Benton County. He represents the Board of Benton County Commissioners on Hanford environment, public health and safety, and economic development issues. Ben worked two years at Hanford in the Solid Waste Management and Pollution Prevention organizations. He has been with

Benton County since May of 1995. He has a B.A. from Brigham Young University in Political Science, with an environmental policy emphasis and is currently pursuing a Masters degree in Business Administration through WSU Tri-Cities.

Alternates: Ray Isaacson, Sandi Strawn



Robert Larson, Richland, is a Commissioner for the Port of Benton and a member of the Benton-Franklin Regional Governmental Council, which he represents on the Board. The Council is composed of 13 local governmental jurisdictions and follows issues of regional significance to its members. He was Director of Procurement for the

Department of Energy at Richland for 15 years and previously the Director of Procurement for the DOE Project Office when the Fast Flux Test Facility was designed, constructed and operated.

Alternate: Chuck Potter



George Kyriazis, Kennewick, is the vice-chair of the Hanford Advisory Board, the chair of the Strategic Planning Task Group and represents the City of Kennewick. He retired after 32 years with Westinghouse Corporation with 20 of those years as a Project Manager at Hanford. He is also chairman of the Planning Commission for the City of

Kennewick. George received his B.S. in Building Construction Engineering from Rensselaer Polytechnic Institute and is an active participant in a number of sports and social activities.

Alternate: Robert Noland



Charles Kilbury, Pasco, is the mayor of Pasco and represents it on the Board. The citys primary interests in Hanford cleanup are economic and transition issues, including a diversified economy, future land uses, and work force stabilization. He is a former Merchant Mariner, state legislator and insurance executive. He was Yardmaster for the

Pasco rail yard 1955-1967.

Alternates: Mike Garrison, Carl Strode

Pam Brown represents the City of Richland. She deals with Hanford issues for the city and is staff person for the Hanford Communities. She was previously Land Use Planning Coordinator for Marion County, Oregon and has managed economic development programs at the state and local levels in Washington and Oregon. Pam has a B.A. in Urban & Regional Government and a Masters in Management from Willamette

University.

Alternate: Joe King

Jerry Peltier, is the Mayor of West Richland, and represents that city. The City is located adjacent to Hanford and could be directly affected by site environmental releases. Jerry is currently employed by Fluor Daniel Northwest as the Manager, Quality Assurance. He is a graduate of Eastern Oregon State College and has worked for DOE contractors for the past 14 years.

Alternate: Stan Stave

William T. Riley, Soap Lake, Washington, represents Grant and Franklin Counties. He is the Executive Director of Big Bend Economic Development Council (BBEDC) in Moses Lake. BBEDC provides planning services to 35 cities and towns in three counties. Bill has a Masters in Urban Planning from the University of Wisconsin - Madison.

Local Business Interests (2 seats, one seat is currently vacant):

Harold Heacock, is a member of the Tri-Cities Industrial Development Council (TRIDEC). TRIDEC is a vital non-profit, private organization that tracks economic impacts in the mid-Columbia region. TRIDEC represents the interests of the Tri-Cities in the economic impacts of ups and downs in federal spending at the Hanford Site.

TRIDECs particular interest is in diversifying the areas economy -- partly through privatization of some Hanford activities and services.

Local Environmental Interests (1 seat)

Rick Leaumont, Pasco, is a member of the Lower Columbia Basin Audubon Society. The Audubon chapters prime interest in Hanford cleanup is to protect the longest uninterrupted stretch of the Columbia River by having the reach declared a federal wild and scenic river and also protecting wildlife and native plants throughout the reservation. Rick has worked for the U.S. Internal Revenue Service for 24 years, 16 of them in the Tri Cities.

Alternates: Bev Weisbrodt, Richard Steele

Hanford Workforce (5 seats, one seat is currently vacant):

Richard Berglund, Richland, is the Assistant Business Manager for the United Association of Plumbers and Steamfitters, Local 598. He is also President of the

Central Washington Building and Construction Trades Council, AFL-CIO, representing 16,000 members. He is active in various organizations including TRIDEC, the HAMMER Steering Committee and the Yakima Democratic Club. He attended Yakima Valley Community College and Columbia Basin College.

Alternates: Al Skinnell, Bill Wilcoxson

Jim Watts, Richland, is a longtime Tri-Cities labor leader. He is a member of Hanford Atomic Trades Council, which is composed of fifteen unions that represent 3,500 workers. He has represented workers in the energy field since 1960 and is a 32-year member and current President of his union local, the Oil, Chemical and Atomic

Workers Union. He is President of the unions Western District.

Alternate: Jay Rhodes

Mark Hermanson, represents the Non-Union/Non-Management Employees on the site. The concerns of the employees include all aspects of the site and cleanup, including the environment, economy and worker health and safety. Mark has been an employee on site for over 15 years and currently provides oversight on computer systems for the site. He is active in various different organizations including American Society of Mechanical Engineers, the Nuclear Quality Assurance Committee, and the American Nuclear Society. He has a Bachelor Degree in Communications and has done graduate work in Environmental Science.

Alternate: Madeleine Brown

Thomas E. Carpenter, Seattle, is a lawyer activist who represents whistle blowers from Hanford. He heads the Seattle Office of the Government Accountability Project, a non-profit, public interest organization that protects the public interest and promotes government and corporate accountability by advancing occupational free speech, defending whistle blowers and empowering citizen activists. He is a 1986 graduate of Antioch School of Law.

Alternate: Alene Anderson

Tribal Governments (3 seats with 2 choosing ex-officio status):

Donna Powaukee, Lapwai, Idaho, represents the Nez Perce Tribe. The Nez Perce is the affected Tribe that retains treaty rights on the Columbia River. The Tribe used Hanford lands as their aboriginal wintering grounds many years ago. Donna serves as the Tribes Department Manager for Environmental Restoration and Waste Management.

Alternates: David Conrad, Rico Cruz, Dan Landeen, Stan Sobezyk

Regional Citizen, Environmental, and Public Interest Organizations (5 seats):

Gregory deBruler, White Salmon, WA, is a technical consultant working on Hanford issues since 1989. Greg is a co-founder of Columbia River United, a grassroots citizen group that works to protect the water quality of the Columbia River. He is the author of Hanford and the River, a reader friendly guide about the environmental problems at

Hanford. He is a co-founder of Northwest Radiation Health Alliance, a citizen organization that

works on human health issues relating to radioactive releases. He also serves on the Hanford Health Effects Sub-Committee.

Alternate: Cyndy deBruler



Todd Martin, Spokane, is the staff researcher for Hanford Education Action League (HEAL). He represents HEAL, which is a non-profit, non-partisan watchdog group founded in 1984. One of HEALs strengths is the technical expertise of its staff and its involved membership. HEAL is actively involved in public education and outreach.

Alternate: Lynne Stembridge

Paige Knight, Portland, is a member of Hanford Watch. The organization is concerned about Hanford cleanup, in particular, the health and safety of future generations and the environment. Paige is a teacher at an alternative school for at-risk youths. She also works with Nuclear Free Port Coalition in Oregon, which is a group working with long

shore union members on issues of mutual interest.

Alternates: Robin Klein, Deane Morrison

Gerald Pollet, Seattle, is an attorney and executive director of the regions largest public interest group involved in the cleanup of the Hanford site, Heart of America Northwest. The organization has focused on advancing the regions quality of life and lobbying for Hanford and US Department of Energy complex clean-up funding and accountability. He is also the executive director and legal counsel for Legal Advocates for Washington. Gerry has a J.D. degree from the University of Washington School of Law and a Bachelor of Arts degree from Clark University. He serves as Chair of the Boards Dollars and Sense Committee.

Alternate: Sharon Bloome

Elizabeth Tabbutt, Olympia, is a member of the Washington League of Women Voters. She received her undergraduate degree from Oberlin College and her Masters in medical sciences from Radcliffe College. She is adjunct faculty at Evergreen State College in the environmental policy field. Betty has been involved in environmental affairs in the Pacific Northwest for 25 years.

Alternate: Maureen McCarthy

Local and Regional Public Health (2 seats):

Richard Belsey, M.D., Portland, is a retired physician and a member of the Oregon Chapter, Physicians for Social Responsibility. The organization strongly opposes nuclear weapons proliferation and has been involved in various nuclear related environmental issues. Dicks professional practice was in internal medicine,

endocrinology and pathology. He serves as Chair of the Boards Health, Safety and Waste Management Committee.

Alternate: Dr. Steve Laney



Margery J. Swint, M.D., retired in 1995 from the Occupational Medicine department of the Hanford Environmental Health Foundation (HEHF). She served as Director of the US Transuranium Registry from 1982 to 1989 and as Medical Director of HEHF from 1989 to 1992. She currently serves on the

Boards of Kadlec Medical Center in Richland, Benton-Franklin Medical Society and Northwest Association of Occupational and Environmental Medicine. Margery graduated from the University of Michigan Medical School in 1961.

Alternates: Herb Cahn, Fred Jamison

State of Oregon (2 seats):



Shelley Cimon, LaGrande, Oregon, has been a member of the Oregon Hanford Waste Board since its inception. The Oregon Board advises the Governor and the Legislature on Hanford-related activities that impact Oregon. She has degrees in art and drafting.

Alternate: Patty Yraguen



Michael Grainey, Salem, Oregon, is the deputy director of the Oregon Department of Energy. Oregons primary concerns with Hanford cleanup activities include protection for the Columbia River and river and overland nuclear materials and transport. Mike is an attorney.

Alternates: Mary Lou Blazek, Ralph Patt, Dirk Dunning, Ken Niles

Ralph Patt for the last 9 years has been a Hanford Hydro Geologist for the Oregon Water Resource Department/ Oregon Department of Energy. Ralph is the chair of the Boards Environmental Restoration Committee and alternate for the State of Oregon. He previously worked for the Desert Research Institute (University of Nevada), the US Geological Survey (State of Colorado) and for a consulting firm in Bend, Oregon. He has an undergradute degree in Geology from the University of Pittsburgh and a Masters in Hydro Geology from the University of Nevada. His background also includes 3 years in the US Army and 17 years as a professional guitarist.

Public-At-Large (5 seats, one seat is currently vacant):

Norma Jean Germond, Lake Oswego, Oregon, has served on the Board of Directors for Portland Community College for 12 years and formerly served 6 years on the National Board for the Association of Community College Trustees. She is the past president of the Oregon League of Women Voters, past chair of an energy advisory committee for former Governor Tom McCall, and the public representative on the Hanford Environmental Dose Reconstruction Project. She serves on the Oregon Hanford Waste Board. Norma Jean is a longtime public activist and has coordinated a few political campaigns.

Gordon Rogers, Pasco, is a retired Hanford worker whose career at Hanford included broad experience in development programs and major facility projects with emphasis on safety evaluation. Since retirement he has been active in many Hanford issues. His principal interest in the cleanup program is in achieving the greatest reduction in risks with cost effective use of funds, permitting beneficial uses of the site.

Alternate: Martin Bensky

Dr. Thomas Engel, Seattle, is a Ph.D. chemist, professor and former Chair of the Department of Chemistry at the University of Washington, which he represents. His expertise is in physical chemistry with a background in instrument design. He also serves on the Site Technology Coordinating Group Management Council and on the Advisory Committee for the Environmental Molecular Sciences Laboratory. In 1992, he was co-facilitator of a group that explored methods for nuclear waste disposal.

Alternates: Dr. Tim Takaro, George Nelson



James A. Cochran, Richland, is a PhD applied mathematician, professor and Dean of the Tri-Cities branch campus of Washington State University. He has had a long career in business and education. As a member of the U.S.DOE Community Leaders Network and TRIDEC, Jim brings both national and local perspectives to the work of the Board.

Alternate: Emmett Moore

John Erickson, is an ex-officio member of the Board. He represents the State of Washington Department of Health, where he is director of the division of Radiation Programs. He directs both regulatory and nonregulatory radiation programs on the Hanford site. The departments priority for cleanup is the adequate protection of public health and safety.

Members Who Have Resigned in FY 1996

Sonja Anderson Helen Fancher

Christie Battiste Kathy Hackley Cliff Groff

Walt Blair Robert Noland
Patty Burnett Herman Reuben
Herbert Cahn Gerald Sorenson

Paul Chasco Terry Strong Denny Condotta Tracy Walsh

Kathy Criddle

EVOLUTION OF THE HANFORD ADVISORY BOARD

After two landmark advisory efforts at Hanford, the Future Site Uses Working Group in 1992 and the Tank Waste Task Force in 1993, John Wagoner, DOE Site Manager, Mary Riveland, Director, Washington Department of Ecology, and Gerald Emison, Acting Regional Administrator, EPA, announced in July 1993 their intention to create an ongoing Hanford Advisory Board (HAB or the Board) to advise them on key decisions about Hanford cleanup and the future of the Hanford site. They asked an independent facilitation/mediation team to survey public views on the formation of such a Board, and subsequently to convene the group and to facilitate initial meetings, drafting a Charter and ground rules for the group. After holding a number of public meetings for reviewing the draft charter and an open nomination process, the regulatory agencies (Washington Department of Ecology and U.S. Environmental Protection Agency) recommended members, and the Department of Energy at Richland

appointed them. The first meeting of the newly-appointed Board was held in Richland on January 24-26, 1994.

Initial Expectations

The Board members and the Agencies had a wide range of expectations. Some thought such a diverse group with often opposing interests would never be able to work together. Some thought DOE would control the group or not give it needed information. But on the whole, everyone thought it was worth the effort. The Agencies and the members agreed that in order to be effective, the Board would have to gain credibility with both the public and the Agencies. To have credibility it would have to accomplish two things. First, it would have to be seen as a body that could come to its own conclusions, take its own actions and make its own decisions independent of the Agencies, yet have the ear of the Agencies. Second, it would have to find a way for the diverse interests represented on the Board to work together to move the cleanup forward, while at the same time not losing the unique perspective that each of them brings.

Independence While Making A Difference

To protect its independence and not become a pawn of either the DOE or the regulating agencies, the Board needed to: uncover the issues and set its own agenda; control its own expenditures and have some independent staffing; and be listened to by the highest levels of management. These are all the things DOE had committed to at the Boards first meeting, and for the mostpart, are what DOE has legal control of and responsibility for. The challenge for both the Board and the Agencies has been to make independence work within this system.

Uncovering the Issues and Setting Its Agenda

The Board needs to uncover and define issues that need to be addressed by the public and to decide what issues are most significant in order to define its scope of work and set its agenda. Yet to be relevant to the activities on the site and timely with advice that can actually influence decisions being made rapidly on complex, interrelated issues, it needs to know about emerging issues and decisions that DOE and the regulators intend to make. Initially, the agencies didnt want to be telling the Board what to do, so were hesitant to reveal upcoming issues. They also did not have any customary process for releasing pre-decisional information or half baked ideas. Board members did not trust that a list of issues coming from DOE would reflect the real issues that needed airing. This is an ongoing dilemma simply due to the enormity of the subject matter and the myriad of decisions being addressed at the site from day to day. Over time, and not without considerable anguish at various points, the Board and the agencies have built relationships that allow for sharing information at earlier stages. They are identifying concerns, and they give time for preparation of information or deliberation that is needed by each, while still fitting into the often cumbersome government decision-making process, and limited availability of HAB members.

The HAB's Internal Operations

The HAB was formed and had developed its own Charter and Operating Groundrules slightly ahead of the DOE Headquarters effort to establish a national charter for its Environmental Management Site Specific Advisory Board (SSAB). This ultimately resulted in individual site Boards being considered a sub-part of the whole national Board, but operating locally. The national Charter, complying with the Federal Advisory Committee Act (FACA), was signed in

June 1994 with members officially appointed by headquarters in December 1994. This was nearly a year after the HAB had started functioning.

The Boards budget is allocated out of DOEs budget, and Federal regulations apply. Both the Board and the DOE have struggled to find the balance in meeting legal requirements and maintaining the Boards independence. Board members are reimbursed for travel and other expenses, but no members, including the Chair, are paid for serving. The Board did make the decision to use a substantial portion of its budget to fund independent facilitation and administrative support of the Board. It has now gone through two procurement processes, selecting a mediation/facilitation team from Confluence Northwest Hallmark Associates for its initial period from June 1994 through the end of FY 1996, and beginning FY 1997 with a technically oriented team from Envirolssues and TRI. It decided in the first period that it needed to maintain an independent address and telephone number clearly separated from the site, and chose to use the site of the Confluence team in Portland, Oregon. Now feeling more comfortable with its ability to maintain its independence, it is establishing its address and phone number at the Richland offices of TRI.

A Designated Federal Official (DFO) from DOE is required under the FACA to attend all Board meetings. Hanford Site Manager, John Wagoner, has consistently designated either his Deputy Manager or the Chief Financial Officer, maintaining a constant connection with DOE at the highest levels, and assuring that the Board is being heard. Both Ecology and EPA also maintain a constant representative at the same high level.

Working Together

This Board of 30 members and 5 ex-officio members, each having one or several alternates, and all being charged with representing specific, different, and strongly held interests, was challenged from the outset with the difficulty of working together. In its initial months, it tediously hammered out agreements about how it would make decisions, conduct its business, treat each other and the agencies, and present itself to the world. (See the Boards Charter and Operating Ground Rules.) Since then it has been learning how to live those agreements in doing its work.

Commitment to Consensus

The Board committed itself in its Charter and Operating Ground Rules to operate by consensus on all but rare occasions. Although difficult, this commitment has served it well. By the end of Fiscal Year 1996, it had reached consensus on 53 different pieces of advice, surprising even itself that it could come to agreement so often. The Boards Charter recognizes several levels of consensus, from unanimous agreement, to willing to live with, to registering a level of dissent, while not wishing to block the consensus from moving forward. There have been only rare occasions when the third has been used and conveyed. Any Board member may block consensus if she/he believes that strongly held views of the interests that she/he represents are not adequately addressed by a proposal put forth by other members. In practice, this has served to give a voice to different points of view, and to require the Board to work harder to understand how all the views work together. It has allowed the Board to produce solid recommendations that are truly supported.

Many members were initially quite distrustful of one another and of how the Board would be used. Membership had been carefully balanced, and there was a clear division and skepticism

between local interests and regional interests, as well as business and environmental interests. Through the intensity of its work together and with help from some special sessions focusing on understanding the common interests shared by the regional and local interests, the Board members have come to respect one another and to trust that they will work toward understanding, will adhere to the agreements they have made, and will not always see every issue the same. The whole Board now appreciates the value of a region-wide consensus on steps that move the cleanup forward, manage the wastes safely, protect resources and treat workers and the local citizenry with respect and sensitivity. They have proved that this regional consensus is possible and that it is effective.

Using Committees

Over time the Board has developed a collaborative way of working that makes use of a Committee structure (initially strongly resisted as divisive and subject to misuse or manipulation) to consider more detailed information and then define and focus the issues on which the full Board should be informed and should perhaps develop advice for the agencies. This has allowed for access to detailed information and building of working relationships to build trust, yet does not get the Board itself buried in the details or in trivia. Initially five committees were created: Cultural, Socio-Economic Impacts; Dollars and Sense; Environmental Restoration; Health, Safety and Waste Management; and Public Involvement. In its effort to become more resource-effective, the Board decided that the functions of the Public Involvement and the Cultural, Socio-Economic Impacts Committees could be dispersed among the other three committees in FY1996, with the caveat that these committees can be reconvened to deal with issues as needed. Generally their members work with the substantive issues in the other committees to be sure the cultural and socio-economic issues and the need for public involvement are included in the deliberations and in proposed advice.

Coordinating Functions and Developing Board Agendas

The agenda for the full Board is developed primarily from the issues brought forward by the Committees, but also from overarching issues brought to the Boards attention by individual members and the agencies. The Board now uses an Executive Committee composed of the Chair, Vice-Chair, Chairs of each standing committee and one or two *ad hoc* members, joined by representative of the Tri-Parties to serve a coordinating and integrating role for developing issues and the agenda and for occasionally responding to fast-breaking issues. However, any response the Executive Committee makes on behalf of the Board reflects only consensus already reached by the Board, and offers no speculation of what the Boards view would be.

The Boards first Chair was hired from outside the Board membership. After she resigned in December 1994, the Board initiated its own process to advise DOE on selection of a new chair. It nominated Merilyn Reeves from among its own members. She was then officially appointed by DOE. Ms. Reeves continues to be admired and supported by all the Board members in her ability to make difficult procedural decisions, to pull the Board together and to represent the Boards views in public.

Evaluations, Workplans and Workproducts

To improve its own functioning, and to get a sense of where it was going, the Board did a selfevaluation in December 1994 and in July 1995. A report comparing the two evaluations and the progress of the Board was prepared by Elaine Hallmark of the facilitation team in July 1995. Both evaluations were parts of continuing to refine both WHAT the Board did and HOW it did it. They led to recognition of difficulties and improvements in its functioning, and contributed to the Boards workplans for each year. The 1995 Report, along with the budget squeeze, fed into the Boards decision to reduce from twelve to eight full Board meetings of two days each per year and to reduce to three standing committees. The Board also agreed to rely more on DOE and contractor support for the committees, and to reduce from the use of six facilitators to one or possibly two facilitators who would primarily focus on the full Board agendas, coordinating with particular Committees as needed. The Board reaffirmed that its work products continue to be: consensus advice, sounding board type feedback and in-depth reports.

Summary

The Hanford Advisory Board seems to have proved the expectation that it was worth the effort, and that it indeed *is* an incredible effort. In its first 2 3/4 years, it has established its credibility as an independent group, and shown that it can in fact get its arms around the giant that is Hanford. It has found a way to work within the constraints of being an advisory group to a federal agency who provides all of its funding, without being coopted. It has found a way to challenge without becoming an enemy. It has embraced its own differences and grown respectful, even appreciative, of them. It has learned to live its agreements. It has learned what consensus is and what consensus brings. It has been frustrated; it has frustrated. It has listened. It has learned. It has taught. It has advised. It has distrusted; it has trusted; it has become trustworthy. The Board has wrestled with the giant and has come out a worthy challenger, a respectful and a respected partner.

From the Facilitator

As I reflect on the Boards development and its achievements in its first 2-3 years, I am inspired by the dedication and commitment of the members, both to the cause of restoring the earth that is Hanford and to the cause of participatory democracy. These people are truly pioneers in both. They are doggedly reminding the people of the United States and of the world that projects like Hanford carry a cost that must be repaid. The Earth must be restored; the harm must be remediated. Those who conducted and benefited from the projects must make recompense. But they also are pioneers in making government work of the people, by the people, and for the people. They are the people, participating in their government. They are the government engaging with its people. It is somewhat of a shock to both the people and the government. But they are both winning. They are learning collaboration. And consensus. I feel privileged to have been a part of the beginnings. I congratulate them all. I commiserate with them all. I urge them all to continue and to pass it on.

Elaine Hallmark, Lead Facilitator June 1994 through September 1996 Confluence Northwest Hallmark Associates

	The Tri-Party Agencies
Alice Q. Murphy serves as the	

Designated Federal Official to the HAB. She was named Chief Financial Officer at the U.S. Department of Energys Richland Operations Office in September 1995. She is a Certified Public Accountant with 22 years of DOE experience, 14 years with three field offices, and 8 years with a Headquarters element. In 1988, Ms. Murphy was selected for the Office of Personnel Managements Womens Executive Leadership Program. She was one of three women selected in the DOE Complex for this highly competitive program. She graduated from the training program in 1989 and a year later received her Masters Degree in Business Administration from the University of Bristol.

Ron Izatt, formerly the Deputy Site Manager, served as the DOE Designated Federal Official to the HAB until he turned the role over to Alice Murphy in March 1996. He has subsequently taken a position at DOE Headquarters.

Randall F. Smith directs the Environmental Cleanup Office, U.S. EPA, Region 10, Seattle. His responsibilities include the cleanup of contaminated sites under the Superfund program, emergency planning and response, and oil pollution regulation and enforcement. He has been a manager in EPAs hazardous waste programs since 1985, playing a major role in federal facility cleanups and sites such as Commencement Bay and the Asarco smelter in Tacoma. In 1988-89, he led EPAs negotiating team for the Tri-Party Agreement with the state of Washington and the Department of Energy, which established DOEs multibillion dollar Hanford cleanup. Prior to joining EPA in 1980, he worked at Battelle on problems of nuclear waste disposal. Mr. Smith has a PhD in Public Policy from Harvard.

The Board has made extraordinary contributions to the U.S. Department of Energy (DOE) decision-making at Hanford. The level of dedication and commitment by the Board and its leadership gives me every reason to believe the Board will continue in years to come. I feel fortunate to have had a role in creating the Board and challenging its membership to give DOE and its Tri-Party Agreement partners sound, value-based advice that reflects a broad public perspective on Hanford cleanup. The Board coalesced to meet that challengesooner than most of us expectedand continues to do so today.

> Ron Izatt, DOE Letter to Merilyn Reeves September 3, 1996

This is a group that is extraordinarily diverse but in my twenty plus years of working on public issues and working in government, this is by far the most effective group of citizens and public officials, that have come together and dedicated themselves to advising government as to what to do. This group and its predecessors, the Future Site Uses Working Group and the Tank Waste Task Force, have had an extraordinary impact on the thinking of the Environmental Protection Agency, of the Department of Ecology and of the Department of Energy here at Hanford. And I would like to ask you and your managers from Headquarters to pay special attention to this Boards advice. When you get letters from this Board theyre the product of a careful Committee structure. A great deal of work has gone into integrating the view points here. We

have learned over the years to really watch and pay attention to this advice. I would urge you and folks in D.C. to do the same.

Randy Smith, EPA Remarks to Al Alm and the HAB September 6, 1996

Dan Silver is the Assistant Director for Waste Management at the Washington Department of Ecology. He is a member of the management team and oversees the four waste programs, which include Waste Reduction, Recycling and Litter Control; Solid and Hazardous Waste; Toxics Cleanup; and Nuclear and Mixed Waste. Mr. Silver holds a Bachelor of Arts degree in Political Science from Kalamazoo College, Kalamazoo, Michigan, and has completed course work for a doctorate in American government at the University of North Carolina. He also studied at the London School of Economics, London, England.

I know the Board still seems a bit unruly, but think back to the summer of 1994. Could you imagine then how such disparate characters could come together in committees, become knowledgeable of substance and respectful of each other, and produce more than 50 pieces of consensus advice, on a broad range of (often sensitive) subjects in just two years? I doubt itl couldnt.

Dan Silver, Ecology Letter to outgoing facilitation team October 24, 1996

For More Information

Who to Contact about the Hanford Advisory Board

The facilitation team:

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TRI
723 The Parkway #200, MSIN-B141, Richland, WA 99352 (509)943-1804

The Agencies:

Max Power, Washington State Department of Ecology, Nuclear Waste Program, P.O. Box 47600 Olympia, WA 98504-7600 (360) 407-7118

Dennis Faulk, U.S. Environmental Protection Agency, 712 Swift Boulevard, Suite 5 Richland, WA 99352

(509) 376-8631

Jon Yerxa, U.S. Department of Energy, P.O. Box 550 Richland, WA 99352 (509) 376-9628

Additional Written Information

There is additional information about the Hanford Advisory Board available in addition to this report. If you would like to receive a copy of any of the following or additional copies of this report, you can contact Collette Casey, TRI, (509-943-1804) or Rosemary Guse, Fluor Daniel Hanford, (509-376-8908).

- Hanford in context: public principles guide new mission
- Advice Adopted by the Hanford Advisory Board
- Hanford Advisory Board Charter and Operating Ground Rules
- Site Specific Advisory Board Charter
- Comparison of the Hanford Advisory Boards First Two Self Evaluations (A Report)
- Hanford Advisory Board Strategic Planning Workshop Report, May 1996
- Future Site Uses Working Group Report, December 1992
- Tank Waste Task Force Report, July 1993

Where to Find More Information About the Hanford Advisory Board

Hanford Public Information Repositories

Portland

Portland State University Branford Price Millar Library Science and Engineering Floor 934 SW Harrison Portland, OR 97202-1151 (503) 464-4617

Richland

U.S. Department of Energy Public Reading Room Washington State University, Tri-Cities 100 Sprout Road, Room 130 West Richland, WA 99352 (509) 376-8583 Attn: Terri Traub

Seattle

University of Washington Suzzallo Library Government Publications Room Seattle, WA 98195 (206) 543-4664 Attn: Eleanor Chase

Spokane

Gonzaga University Foley Center E. 502 Boone Spokane, WA 99258 (509) 328-4220 ext 3844

Attn: Tim Fuhrman

This report was written and designed by the staff of Confluence Northwest Hallmark Associates (Elaine Hallmark, Busse Nutley, and Sarah Cloud). Much help and information was provided by agency personnel - Max Power (Ecology), Barb Wise (PNNL), Rosemary Guse (Fluor Daniel Hanford), Dennis Faulk (EPA), and Jon Yerxa, (DOE). Photos were provided by Rosemary Guse. November 1996.

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URL: http://www.hanford.gov/boards/hab/progress/96progress.htm

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