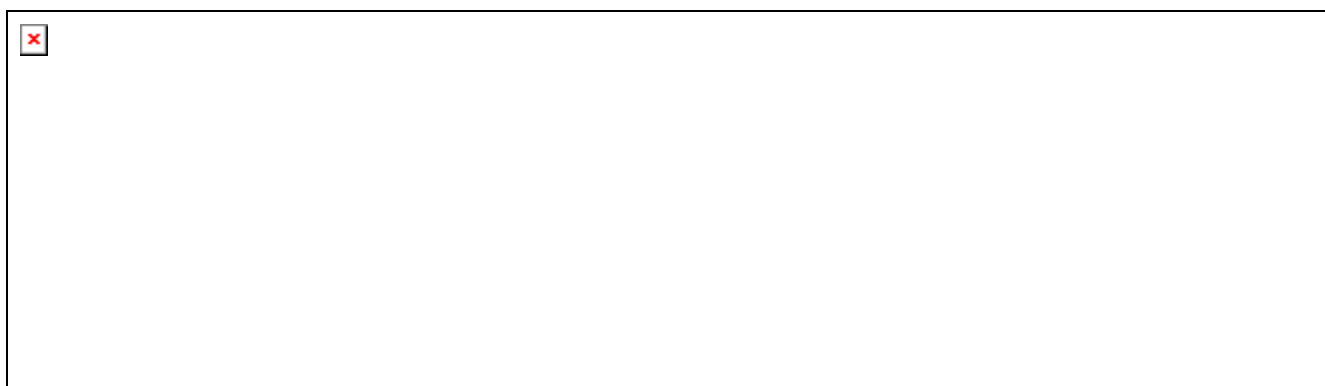




---

**Consensus Advice #94 from the  
Hanford Advisory Board Regarding  
Hanford Cleanup Priorities and the  
Proposed Fiscal Year 2001 Budget**



**Figure 1. Budget Level Summary for Fiscal Year 2001**

## **OVERVIEW**

*(NOTE: Italicized text is directed toward DOE-HQ)*

### ***The Proposed Budget is Not a Compliance-Based Prioritization***

The strategic choices made in the proposed Hanford cleanup budget and prioritization for Fiscal Year 2001 (FY2001) do not reflect the values of the region's stakeholders. Neither the target budget level from the U.S. Department of Energy Headquarters (DOE-HQ) nor the Hanford Site's Integrated Priority List (IPL), which prioritizes the cleanup and safety work to be funded, reflect legal compliance-based budgeting. The strategic choices made at the site level to eliminate all groundwater and soil cleanup along the Columbia River shake public and regulator confidence in the U.S. Department of Energy's (DOE's) commitment to protect the Columbia River and to perform meaningful cleanup along the Columbia River.

For the Hanford site, budget priorities have been established through a prioritization process which includes minimum safe, essential services, urgent risks, target, compliance, and additional requirements. Program elements which are not included in one of these priority groupings are not funded. The target budget case, which is established for Hanford by the Office of Management and Budget (OMB) and DOE-HQ, does not include all regulatory compliance requirements. The DOE is required by the Tri-Party Agreement (TPA) to request

full funding for the regulatory compliance level. The U.S. Department of Energy- Richland Office (DOE-RL) must request program funding to the regulatory compliance level as a minimum. The process by which DOE-RL has established the relative priorities of specific IPL line items in the prioritization categories is not clearly identified but appears to be a subjective process without consideration given to public input and relative risk perceptions. The public review process, of which this advice is a part, focuses more on the total available funding than on specific IPL priority listings.

*The Hanford Advisory Board (HAB) wishes to restate its position that DOE is obligated under the TPA to request full programmatic funding at the regulatory compliance level. DOE must work with OMB to obtain this funding.*

In previous advice on Hanford cleanup program funding and priorities, the HAB has identified concerns including the need to continue reductions in site contractor and overhead costs; duplication of program management between the Maintenance and Integration (M&I) contractor and DOE-RL; avoid use of cleanup program funds for non-direct cleanup program costs, such as contractor litigation expenses; and the disposal of off-site waste at Hanford without full cost recovery. A new area of concern is the incurrence of contract termination costs resulting from program curtailment as a result of changes in program priorities.

The HAB notes with alarm the recent work of the DOE Center for Risk Excellence (CRE) as it may pertain to budget priorities. Any guidance on risk, future use, or exposure scenarios must be built upon extensive public, state, regulator, and tribal nation input. Studies or guidance that have not been developed in this way must not be used in budget formulation, priority setting, or decisions.

### ***Level Funding Plan is Not Acceptable***

*The HAB appreciates the work done by Secretary Richardson to increase the budget request for Fiscal Year 2000 (FY2000). This is the first step toward securing required funding levels. Level funding for the Hanford nuclear waste cleanup in FY2001 and remaining years in the 2006 Plan is neither sufficient nor acceptable. Failing to request sufficient funds to meet the minimum safety standards and environmental cleanup schedules is not acceptable. The failure to fund those legally-required activities in Fiscal Year 1998 (FY1998) and Fiscal Year 1999 (FY1999) has created a bow wave into the next two years of unfunded, legally-required cleanup and safety work that is forecast at \$98 million and \$232 million for FY2000 and FY2001, respectively. We either invest in disaster prevention now, or our children and environment will pay a far higher price later.*

### ***Skilled Workers Must Be Retained***

DOE and its contractors must keep the skilled employees who work in high-risk facilities and with high-risk materials. The skills, experience, and institutional memory these workers possess are essential for Hanford's safe and efficient cleanup. DOE must ensure these employees have the skills and tools they need and that all Hanford employees go home after a day's work as safe and healthy as they arrived. It is cheaper and faster to keep the workers with those skills than to hire new workers who must acquire them. Institutional memory is vital to mitigate the limits on information caused by the culture of secrecy.

### ***DOE, OMB, Administration, and Congress Must Re-Prioritize***

The HAB finds that there are numerous highly important activities that are not funded and which are not included in the compliance case budget. *DOE-HQ must make funding of actual cleanup work a much higher priority.* The public is fully supportive. The HAB, stakeholders, tribal nations, and the public have explicitly stated that DOE-HQ must make funding of actual cleanup work a much higher priority. DOE-RL must propose a budget prioritization list that funds truly essential safety and compliance work ahead of other activities. At a minimum, the DOE-RL proposed budget request must be at a compliance-based level that ensures funding for all legally-required cleanup and safety work for the year.

### ***Improve Efficiency to Accomplish More Work***

*DOE has much work to do in improving efficiency and lowering costs. The HAB is concerned that the 2006 Plan dropped the proposed limit on each site's management, contract, and overhead costs. Hanford has reduced overhead and indirect costs and has promised DOE-HQ to continue to identify and work to attain a lower target for those costs. While Hanford's contractor overhead and indirect costs have come down, doing so at other DOE sites would make more funds available for cleanup everywhere.*

### ***Non-Cleanup Activities Should Not Be Funded with Hanford Cleanup Funds***

Last year, the HAB identified a number of non-cleanup activities, which were funded ahead of legally-required cleanup and safety work. *The HAB again urges DOE-HQ and DOE-RL to not use cleanup funds for non-cleanup work, e.g., litigation, and security and safeguards.*

### ***Caution on New Contract Awards***

Management must carefully consider the risk that any contract awarded for new work may be canceled, incurring substantial liabilities, due to shortfalls in funding and a revision of the budget priority list. New awards for work that is not legally required by the TPA or other legal requirements should be questioned at a time that the site forecasts a compliance gap of \$232 million for FY2001.

### ***Budget Public Involvement Process***

The HAB advises DOE-RL to forward all citizen comments related to the budget and budget priorities to appropriate managers on site and at DOE-HQ and for DOE-RL and DOE-HQ to provide concerned citizens with a timely response before decisions are finalized. *This includes comments relative to the Accelerating Cleanup/2006 Plan.* DOE-RL should submit these comments to DOE-HQ in order to be considered in the revision to the 2006 Plan. The HAB commends DOE for its timely response to this Board, in which DOE related what it heard at the FY2001 budget public meetings. The HAB urges the Washington Department of Ecology (Ecology) and the U.S. Environmental Protection Agency (EPA) to view these public involvement requirements as substantive elements of the budget prioritization process under TPA paragraphs 148 et. seq.

## **PROGRAM-SPECIFIC BUDGET ADVICE**

*(NOTE: Italicized text is directed toward DOE-HQ)*

### ***High-Level Tank Waste Removal from the 177 Underground Tanks***

The major budget item in the FY2001 and all previous budgets have been related to the risks associated with the 54 million gallons of high-level radioactive waste now stored in aging single and double shelled underground tanks. Hanford does not have a facility that can treat and convert these wastes into a safer form suitable for long-term storage.

There are many categories in the FY2001 budget relating to these high-risk wastes. The HAB's budget advice addresses each category. First is the urgent need to provide funding for the design, construction, and ultimate operation of facilities to vitrify high-level tank wastes. Second is the need to fund removal of liquids from the aging and dangerous single-shell tanks as required by the proposed federal court consent decree. Third is the need to fund the preparation to recover the high-level wastes so that they can be successfully vitrified. Fourth, the high costs and risks associated with management of the design, construction, and operation of a vitrification plant caused Congress to establish a new office which does not yet its permanent senior managers. Fifth, funding is needed to meet ongoing safety and management work. And, finally, funding is needed to identify contaminants underground (vadose zone) in the single-shell tank farms. The HAB offers advice for each of these and documents the serious shortfalls in the FY2001 budget. Reliance on level funding will not be sufficient to remove and secure high-level tank wastes and also meet other compliance-driven work.

### **Compliance Shortfalls**

On paper, the TWRS FY2000 budget has been balanced by focusing only on regulatory compliance tasks due in FY2000. This compliance shortfall in the FY2000 budget will affect FY2001 compliance requirements. DOE must aggressively seek additional funding for the Hanford Environmental Management (EM) program to meet these compliance requirements.

### **High Level Nuclear Waste Treatment (Vitrification)**

The TWRS waste vitrification program is the highest priority, most expensive, and longest term program for cleanup of the Hanford site. Obtaining adequate funding is vital to keep this program on schedule, including consideration of alternative financing mechanisms. The HAB has consistently advised DOE of its support for the TWRS waste vitrification program. Advance funding authorization is included in the FY2000 budget request for the privatization program. Funds necessary for outyear TWRS total budgets are projected at over a billion dollars annually; a substantial portion of these funds must be provided from the separate privatization authorization. In contrast, the total Hanford EM budget is proposed to be \$1.065 billion and flat from FY2001 through FY2006. DOE and Congress need to avoid having the privatization authorization impact funding to meet the compliance requirements for the entire site.

For FY2001, DOE's planning has shown a need from \$400 million to \$675 million for the TWRS waste vitrification program. The HAB requests the supporting details for this budget request be provided.

DOE must consider alternative financing mechanisms to reduce the overall cost of the vitrification program. DOE-HQ and DOE-RL must prepare an evaluation of the full range of alternative financing mechanisms for tank waste treatment as urged by the General

Accounting Office (GAO) and this Board to develop proposals for reducing the budget authorizations and budget obligations for tank waste treatment. These studies should be integrated with other optimization studies to determine if retrieval and treatment could occur sooner and with greater capacity than the dates and processing rate in the contract with BNFL.

### **Single-Shell Tank Pumpout**

The program for pumping out the balance of the remaining single-shell tanks is proposed to be under a Federal court monitored consent decree. As additional tanks are pumped in FY1999, FY2000, and FY2001, the overall costs of this program increases. The HAB wants to encourage DOE to conduct an independent validation of the costs of the program to determine if additional programmatic savings can be achieved in order to make additional funding available for other TWRS program commitments.

In 1998, costs to pump waste from tanks were estimated at \$2-4 million per tank. The pace of the proposed consent decree is based significantly on projected available funds, in particular funding to restore crews which were cut as a unilateral management decision in violation of the TPA and commitments. The pace of tank pumpout is reduced to four startups for FY1999; four for FY2000; and eight for FY2001; at approximately \$37 million per year. The HAB is concerned with these significant cost increases and asks DOE to explain the situation. DOE should move ahead this year to obtain an independent cost validation to determine if costs can be lowered. This independent cost validation should not wait for another year to be part of a TWRS wide effort, which could take over a year.

### **Readiness to Proceed**

The HAB has concerns regarding the availability of adequate funding for the Readiness to Proceed tasks within TWRS in a timely manner to support the vitrification program. Due to the extension of the schedule for the vitrification project, funds initially budgeted for this purpose in FY1999 will be utilized to meet other urgent safety and programmatic needs within TWRS. It will be necessary to restore the TWRS portion of the FY99 reprogrammed funds, \$49 million, to the TWRS budget for use in FY2000 and FY2001 so as to not delay the vitrification program.

DOE must not proceed on the assumption that its contract with BNFL will supplant milestones for waste retrieval and treatment in the TPA. DOE must be ready to proceed on an accelerated tank waste retrieval schedule. Deferral of work to be ready to retrieve and deliver waste to the treatment plants appears to be based on the assumption that the contract dates will be accepted as the legal milestones or that BNFL will not provide capacity earlier.

### **Management and the Office of River Protection**

The Office of River Protection (ORP) was established to provide a high-visibility, focused management structure for the highest priority project in the Hanford site cleanup program. This project includes both the continued safe storage and retrieval of the tank wastes and the design, construction, and operation of the planned vitrification plants (BNFL contract).

*The HAB strongly recommends that the Secretary and senior staff of DOE give a high priority to fully staffing and implementing a management plan for the ORP to successfully*

*expedite vitrification of the tank wastes.*

### **TWRS Urgent Needs**

Budget projections for the TWRS program for the safe storage of the tank wastes indicate a shortfall of \$200-300 million per year beginning in FY2001 to meet all high priority safety, compliance, and urgent needs in addition to the restoration of the FY1999 reprogrammed funds. These needs will not be met within the current level funding projections for the TWRS program. DOE must aggressively seek additional funding to meet these increasing needs.

### **Vadose Zone Characterization**

Additional funding is needed to begin vadose zone characterization in the single-shell tank farms. Funding for readiness to proceed is insufficient for single-shell tank vadose zone characterization, boreholes, and retrieval.

### ***Hazardous and Radioactive Waste Management***

#### **Transuranic Waste Retrieval**

Buried transuranic (TRU) waste retrieval should be funded because of the deteriorating containers. Delaying retrieval defers only approximately \$2.5 million in FY2000 and \$4.0 million in FY2001, while potentially driving up retrieval costs by more than \$500 million in outyears due to worker safety and container degradation issues.

#### **End Subsidy of Offsite Wastes**

*The HAB reiterates its previous advice that Hanford cleanup dollars should not be used to subsidize the receipt, storage, and/or waste disposal of offsite wastes. In FY1999, approximately 55% of all low-level waste to be disposed of on site will be from offsite generators. In FY1999, the total base funding for Hanford solid waste disposal, management, treatment, and storage is \$78 million. In FY2001, these same activities are to be funded at \$95.8 million. If, as the HAB believes, Hanford cleanup dollars are being used to subsidize offsite generators, and the budget for these activities is increasing, then an increasing percentage of the site's budget will be going to support other sites, not to clean up Hanford.*

*We again urge DOE-HQ and DOE-RL to adopt a policy of charging offsite generators the fully burdened, long-term costs of disposing of waste at Hanford or other DOE sites.*

### ***Environmental Restoration***

#### **Reduction of the Environmental Restoration Program is Unacceptable**

The HAB opposes any reduction in funding for the Environmental Restoration (ER) Program. DOE-RL site management stated that it based the proposal to eliminate all cleanup work on strategic choices but this does not reflect the public values for protecting the Columbia River and the promised acceleration of cleanup along the River to release these areas for unrestricted public use. Many of the most visible achievements for the cleanup effort on site are contained in the ER Program. The current pump and treat activities along

the River and for strontium and chromium and for carbon tetrachloride and uranium in the 200 Area must be continued to control spread of major groundwater plumes.

The HAB is concerned about the risks to workers and the increased costs and risks of continuing to defer decontamination and decommissioning (D&D) work. The underfunding of the D&D budget is analogous to the neglect of the tank waste program during the site's production mission. The region can ill afford another legacy of this nature.

The reduction of the ER budget will also shut down the cover/barrier program, resulting in the discontinuation of critical monitoring data collection for this program. These data are absolutely critical to increasing the probability of acquiring regulatory support and approval of cover designs for site closure. The ER program has made a greater than \$12 million investment and continuing data collection would cost about \$200,000/year. The return on investment for the \$200,000/year would easily be captured in an accelerated acceptance process for final closure of numerous sites at Hanford and is applicable to other DOE sites.

\$14 million is budgeted in FY2001 for groundwater/vadose zone integration. These funds should be prioritized for funding characterization and groundwater remediation activities required by the TPA and CERCLA. DOE's obligation is to ensure characterization and cleanup work along the Columbia River, as required by the TPA, is funded before spending funds on integration, management and models that are not essential to carry out the legally required clean-up activities. Tank retrieval objectives should be funded from TWRS or the Science and Technology budget. *The HAB expresses its disappointment that the DOE-HQ commitments to fund the groundwater/vadose zone investigations from sources outside the Hanford cleanup funding baseline were not met.*

Forced termination of current contracts wastes money that is better used for actual cleanup work. By following our advice, DOE will save \$20 million by avoiding contract termination costs. Management costs should be decreased in FY2001 rather than increased, if less actual work will be performed.

The failure to meet TPA milestones in the ER Program will destroy visible progress for Hanford cleanup and undoubtedly will result in external legal actions seeking compliance under various state and federal laws.

The HAB finds the decisions to decimate the Environmental Restoration Program are in conflict with the explicit commitments made by DOE and the President.

### ***K Basin Spent Fuel Program***

This program is another high priority Hanford cleanup project. During the last several years the program has experienced significant schedule delays and resultant cost increases. Currently DOE-RL and its contractors have established high confidence schedules and cost estimates for the completion of this program. The HAB expects the K Basin project team to successfully complete this project on schedule and within budget.

The major portions of the construction phase of this project will be completed in FY2000 and initial staffing and training for the operational phase of the program undertaken. In FY2001 the primary focus of the project will be on the successful removal and processing of the spent fuel for interim storage. The HAB's view of this program is that DOE-RL and its contractors

must demonstrate a very high degree of management attention to the Operation and Maintenance (O&M) program to insure that the cost and schedule projections are achieved. This must include stringent and penetrating reviews of contractor staffing and performance.

DOE and its contractors must make every effort to reduce the projects costs to avoid any additional escalation of costs and schedule on this project. Therefore, the HAB urges that any cost savings for the Spent Nuclear Fuel project baseline for FY2001 be identified in consultation with the EPA and independent cost reviewers. This should result in reallocation of funds saved to other unfunded compliance activities in FY2001. The contractor should be incentivized to find savings to reduce the project costs below the promised \$1.4 billion. (The long-term baseline needs to reflect the \$180 million dismantling costs no matter what contractor does the work.)

### ***Environment, Safety and Health (ES&H)***

Activities that protect the environment (air, land, water/biological/ecological resources), the workers, and the public must be fully funded in the FY2001 Hanford site budget. These activities may not be as visible in the budget process as project activities. ES&H activities, whether they are funded via indirect or direct program funds, are essential to protecting the overall health of the Hanford site. To ensure that all three elements of protection of workers, public, and environment are maximized each year, the FY2001 Hanford budget should:

- Provide for a fully compliant budget, which includes funding for all TPA milestones and for compliance oversight (including inspection/assessment activities) and ES&H performance activities (such as the ISMS).
- Provide assurance that ES&H activities (some of which are hidden costs, either through indirect charges or charges made directly to specific functional IPL activities) are not reduced simply to show cost efficiencies resulting in a lower indirect rate or reduced direct project costs. It is important to strive for efficiencies but sacrificing ES&H activities to accomplish these efficiencies is not acceptable.
- Meet high profile commitments and legal requirements for improving emergency response plans and capabilities, chemical management and configuration management (correcting site blueprints to reflect as is conditions).

### ***Overhead and Indirect Costs***

These costs continue to be projected to be reduced, with a reduction of \$14 million proposed between FY1999 and FY2001. When adjusted to include fees for indirect funded activities and the overhead costs of the Enterprise Companies (ENCOs), the FY1999 Project Hanford Management Contract (PHMC) budget for overhead, service centers and indirects is now forecast at \$277 million. The disclosed figure should reflect enterprise company overhead and fees, indirect activities, and a breakout of common support pools. The site should continue to identify lower targets. The HAB recommends examinations of costs, consideration of the scope of computer upgrades and related contracts, and reduced subsidy of offsite waste.

### ***Richland Direct-Funded Activities***

DOE should evaluate redundant staffing and management between the M&I contractor and DOE as a possible way of reducing costs. *The HAB urges again that DOE-HQ and DOE-RL*



*not use Hanford EM funds to pay for non-cleanup activities. This includes DOE identifying other sources to pay for the \$3.5 million budgeted for legal fees of former Defense Program contractors in downwinder litigation. These funds should be reprioritized towards meeting compliance needs. The HAB, State, and emergency preparedness grants, and payment-in-lieu of taxes are legal requirements that should be funded in the target level.*

### ***Facilities Stabilization***

#### **Plutonium Finishing Plant**

In February 1999, the HAB recommended that characterization efforts for Tank 241-Z-361 be given high priority and expeditiously completed (see Consensus Advice #91). Funding must be identified and committed for the retrieval of the tank's wastes, including 35-70 kilograms of plutonium, and investigation of leakage to the soil.

\$17 million of EM funds are spent per year on safeguarding plutonium at the Plutonium Finishing Plant (PFP). This is an example of Hanford cleanup funding being used for a non-cleanup activity. DOE should require the Defense Program to pay this cost annually.

For the PFP budget items to be defensible, it is essential that DOE reach agreement with the State of Washington and EPA on characterization, treatment, storage, disposal, and management requirements for dangerous waste materials and mixed wastes subject to the Resources Conservation and Recovery Act (RCRA) and Washington Dangerous Waste Act requirements (see Consensus Advice #91).

Plutonium solutions pose significant criticality, chemical, and radiological hazards. The HAB has urged that DOE move immediately to reach agreement on compliance requirements and schedules. Until this is achieved, proposed major expense line items should be deferred, freeing up significant funds for compliance activities, including the 361-Z tank and the 324-B cell.

Calcliner operation, ash processing, and pyrolysis should be subject to regulatory oversight due to chemical hazards and the need to meet treatment, disposal, and emission standards, and alternatives should be reviewed for these actions pursuant to meeting RCRA and Washington State requirements to ensure that budget planning has a sound and valid basis.

#### **324-B Cell**

The 324-B Cell presents a high risk, urgently requiring cleanup. Continued funding in FY2001 is required to complete the removal of highly radioactive waste materials and close the facility in compliance with an existing regulatory order.

---

**[Hanford Home Page](#) | [HAB](#) | [Advice Index](#)**

*For questions or comments, please send [email](mailto:Hanford_Advisory_Board@rl.gov) to Hanford\_Advisory\_Board@rl.gov  
HAB Consensus Advice # 94  
Subject: Hanford Cleanup Priorities and the Proposed Fiscal Year 2001 Budget*