

Meeting Minutes
U.S. Department of Energy and Oregon Office of Energy
Bi-Monthly Forum

May 28, 1998
 Federal Building, Room 147, 825 Jadwin Avenue, Richland Washington

Distribution:

L. D. Arnold	FDH	H8-67
P. J. Bengtson	PNNL	A0-21
M. L. Blazek	OOE	Oregon
N. R. Brown	DOE-RL	A0-21
R. Lightner	DOE-HQ,	EM-38
M. Grainey	OOE	Oregon
J. W. Graybeal	FDH	B3-35
R. A. Holten	DOE-RL	H0-12
K. K. Randolph	DOE-RL	A7-75
D. C. Malcheski	DOE-RL	A7-89
G. M. McClure	DOE-RL	A7-75
F. R. Miera	DOE-RL	A5-15
R. D. Morrison	FDH	G3-27
N. B. Myers	BHI	H0-14
J. E. Rasmussen	DOE-RL	A5-15
G. H. Sanders	DOE-RL	A5-15
R. L. Sweeney	DOE-RL	A0-21
K. Niles	OOE	Oregon

RECEIVED
 JUL 23 2002
EDMC

Meeting Minutes
U.S. Department of Energy and Oregon Office of Energy
Bi-Monthly Forum

May 28, 1998

Federal Building, Room 147, 825 Jadwin Avenue, Richland Washington

Apprvl.: *George H. Sanders* Date: 8/4/98
George H. Sanders, Administrator
for Tri-Party Agreement
U.S. Department of Energy

Apprvl.: *Mary Lo Blazek* Date: 7/29/98
Mary Lo Blazek, Administrator
Nuclear Safety Division
Oregon Office of Energy

Attendees:

P. Bengtson DOE-RL
M. Blazek OOE
N. Brown DOE-RL
M. Grainey OOE
R. Holten DOE-RL
D. Malcheski DOE-RL
G. McClure DOE-RL
F. Miera DOE-RL
R. Morrison FDH
K. Randolph DOE-RL
R. Sweeney DOE-RL

AGENDA

DOE/OREGON BI-MONTHLY FORUM MAY 28, 1998

- I. Introductions
- II. TWRS Privatization Status, and Contract Announcement -Bill Taylor
- III. Budget Update – Dave Malcheski @ 2:30 pm
- IV. Public Involvement Activities – Blazek/ McClure
- V. League of Women Voters Meetings – Chicago/San Diego – Blazek
- VI. Governor Kitzhaber/John Wagoner Meeting – Blazek/Miera
- VII. Groundwater/Vadose Zone Status Report – Rich Holten @ 3:30 pm
- VIII. TPA Milestone Activities Update – Miera
- IX. Oregon Quarterly Report – Blazek
- X. Follow-up on Action Items from March 30, 1998 Meeting – Morrison
- XI. Set Next Forum Meeting Date – Blazek, Miera
- XII. Closing Remarks

MEETING MINUTES, May 28, 1998 (Richland, Washington)

Note: agenda items are presented in the order in which they were addressed during the Forum.

I. Introductions

F. Miera announced that Ralph Lightner will act as the Department of Energy Headquarters (DOE-HQ) Liaison with RL and the State of Oregon.

U. S. DOE Office of Oversight visit to the State of Oregon

Action: M. Blazek asked F. Miera to check on status and outcome of the Glenn Podonski, Deputy Assistant Secretary for Oversight, visit to the State of Oregon.

M. Blazek reinforced that the Oregon Office of Energy has the lead on Hanford issues and not the Oregon Office of Emergency Management which was visited by Mr. Podonski.

III. Budget Update

D. Malcheski discussed the current DOE budget situation. R Tibbatts has been assigned to participate on a peer review team to evaluate DOE Field Office budgets, specifically looking at how much of the budgets are for compliance costs. The team visited the Hanford Site in May of this year. The findings of the peer review team were:

- All costs are tied to a compliance milestone or compliance need.
- Efficiencies and cost cutting measures will not close the compliance gaps.
- Hanford's regulators are losing patience on budget compliance gaps.

D. Malcheski provided a copy of "FY 2000 Richland Operations Office Budget" (Attachment 1) and explained that this model will be provided to Congress and the Office of Management and Budget. The emphasis will be on establishing a priority ranking rather than being out of compliance on multiple compliance needs. Privatization readiness to proceed also represents a potentially large expenditure.

The Corporate Forum, i.e., the DOE-HQ's evaluation of Field Office Integrated Priority List (IPL) budget submittals, was discussed with the following key points being shared:

1. The purpose of the Forum was baseline validation.
2. The Environmental Restoration program's DOE-HQ proposed funding level, which was much reduced from earlier RL IPL submittals, was discussed. There was a recognition at HQ that a funding level of \$137 million was needed.
3. Within the Tank Waste Remediation Program, concerns were raised regarding the costs of Privatization.
4. The Waste Isolation Pilot Project was also discussed and the potential for sending transuranic wastes to the Site.

5. Plutonium Finishing Plant was discussed within the context that the DOE-RL believes plutonium stabilization is an important near-term goal, with the regulatory agencies not being as concerned.

M. Graine, Deputy Director of OOE, noted that the State of Oregon is quite concerned about the Hanford Site's budget. He also provided a copy of a letter from the Governor of the State of Oregon (attachment 2), which expressed these concerns to the Secretary of the U.S. Department of Energy and the Budget Director of the Office of Management and Budget. Additionally provided was a letter from Mr. Graine to Oregon's Congressional Staff Members (Attachment 3) detailing Oregon's concerns on budget impacts for the Hanford Site in fiscal years 1999 and 2000. M. Graine concluded by stating that it is the State of Oregon's position that Congress must be asked for all the money needed to meet the Hanford Site commitments for cleanup, and if it impacts weapons production, then so be it.

M. Blazek pointed out that a recent edition of the Tri-City Herald reported a six percent increase in the Hanford Site's budget had been approved.

D. Malcheski responded that these news reports should be looked at carefully. Until such time as DOE receives the Congressional Conference Committee marks, one doesn't have a complete picture of the budget.

M. Blazek inquired that, if RL submits a request for a compliance case budget as required by the Tri-Party Agreement, and Congress apparently provides it, why does Hanford Site have a compliance gap?

D. Malcheski responded that RL submitted an FY 2000 compliance case budget request of \$1.14 billion. However, when the budget request was forwarded by the Office of Management and Budget, this amount was reduced to \$0.961 billion.

M. Blazek asked when DOE will have the final fiscal year 1999 budget numbers?

D. Malcheski responded that they should be available in late July or early August.

II. Privatization

N. Brown discussed the status of the tank waste privatization effort.

- Lockheed Martin Advanced Environmental Services (LMAES) was not authorized to proceed with applying for a Part B Permit.
- The British Nuclear Fuels Ltd. (BNFL) contract will be extended by up to 2 months.

M. Blazek asked what the sticking points are in current negotiations with BNFL?

N. Brown responded that the main sticking points were price and what are known as “H clauses”. Brown also added that the contract will not result in strict compliance with the Tri-Party Agreement in that the start of operations for low level waste could be 3 to 4 years later than the current dates in the Tri-Party Agreement. However, high level waste could be perhaps 3 years earlier than the dates in the Tri-Party Agreement. Pretreatment activities would also be moved up about two years ahead of existing Tri- Party Agreement dates.

The primary source of the delays is twofold:

- The construction of temporary pilot plants as originally envisioned turned out to be impractical, the plant(s) to be built will be long term facilities.
- Proceeding with a concurrent design and construction approach was not acceptable to the bidders on the contract, citing as an example complications in the Spent Nuclear Fuels Project.

Double shell tank (DST) space considerations for the single shell tank (SST) transfers are also a concern in light of the possible delays. It is believed that this problem can be solved, for example, by removing the Cesium and Technetium from the tank wastes and then concentrating the remainder of the wastes in one tank. BNFL will also perform sludge washing in its planned facilities, thereby freeing up other tanks. Bottom line is that this potential problem has some solutions. The DOE should know in approximately 2 weeks if tank space under the above plans is an issue and if so we have some other options for coping with future tank space issues.

M. Blazek asked what the State of Washington Department of Ecology’s reaction is to this approach?

N. Brown responded that a primary concern was possible impacts to other programs. By abandoning the pilot plant approach 60 percent of the waste could be treated in one facility by the year 2028 or with two facilities all of the waste could be treated by the year 2028.

N. Brown went on to explain that BNFL’s approach utilized technologies which have been proven around the world. In contrast, the LMAES approach, while highly innovative, was determined to be to great a risk, as it proposed to use unproven technologies.

Additionally, the following represented difficulties for the DOE with LMAES’s proposal:

- No performance guarantees.
- The DOE would have to assume risk for subcontractor performance.
- No acceptance of third party liability.
- The lower cost bid was not considered realistic.
- Proposed schedule was not deemed achievable.

M. Blazek responded that the State of Oregon would have much more confidence, if the process and reviews of the privatization proposals had been more open.

N. Brown responded that employees of the State of Oregon would be allowed to review the material if they agreed to sign the appropriate confidentiality agreements. Alternatively, the information will very soon be widely available.

VII. Groundwater/Vadose Zone Project Status Report

R. Holten stated that a "gap" analysis followed by a "road mapping" effort will be undertaken to identify the future project efforts. As an example, one gap the project is currently aware of is the question of chemical reactivity for various chemical constituent contaminants with geologic formations.

River modeling is another activity that the Project will pursue, and may be able to work with a model the Bonneville Power Administration (BPA) is coincidentally working on related to river flows. The Project could hopefully just add current transport models to the BPA model.

Regarding the Columbia River Comprehensive Impact Assessment (CRCIA), at the last team meeting it was suggested that CRCIA and the vadose project be compared and it may be possible that CRCIA could be integrated into the vadose project.

M. Grainey provided a copy of the Hanford Regional Effects Assessment presentation dated May 5, 1998 (Attachment 4) on the Hanford Site groundwater, vadose zone and the CRCIA issues.

R. Holten suggested that the DOE would be willing to come to Oregon to discuss the project issues. The DOE intends to be proactive and work with the State of Oregon, as well as other stakeholders, possibly in conjunction with these Forum Meetings. R. Holten also stated that he would attend the Oregon Waste Board meeting on June 15, 1998.

M. Blazek stressed that either D. Huston or Ken Niles of the Oregon Office of Energy should be involved at a detailed level.

IV. Public Involvement Activities

M. Blazek reported that the Oregon Office of Energy had just received the Public Involvement Look Ahead and stated that it is a great help and addressed some real problems.

M. Blazek also pointed out that a quarterly forum with the State of Oregon's public interest groups has been initiated.

V. League of Women Voters Meetings

M. Blazek stated that 3 focus groups will be set up to develop what will be taken to the San Diego League of Women Voters meeting. K. Randolph suggested that as the various groups are contacted and as work progresses it may be useful to include someone from the DOE.

VI. Governor Kitzhaber/John Wagoner Meeting.

Efforts are continuing to identify and coordinate an appropriate meeting date and place for a meeting between Oregon Governor Kitzhaber and DOE Manager J. Wagoner.

IX. State of Oregon Quarterly Report

M. Blazek provided a copy of the Quarterly Progress Report for the Period of November 1, 1997 through March 31, 1998 (Attachment 5). M. Blazek requested the DOE to please review the report for adequacy.

VIII. Tri-Party Agreement Activities Update.

F. Miera discussed the current suspension of negotiations in developing commitments in the Tri-Party Agreement for the Spent Nuclear Fuels Program. The main breakdown in negotiations is due to an unstable schedule and budget growth experienced to date. Concerns have also been expressed by the U.S. EPA and State of Washington Department of Ecology negotiators in the Party's inability to make real progress in other areas such as Single Shell Tank Stabilization and the transition of the Plutonium Finishing Plant. It is a possibility that enforcement actions may be forthcoming. Critical to the successful conclusion of negotiations will be the development of a firm schedule for the Spent Nuclear Fuel activity.

XI. Set Next Forum Meeting Date.

The next State of Oregon and U.S. DOE Forum Meeting will be held on July 29, 1998 at 8:30 a.m. in Richland, Washington.

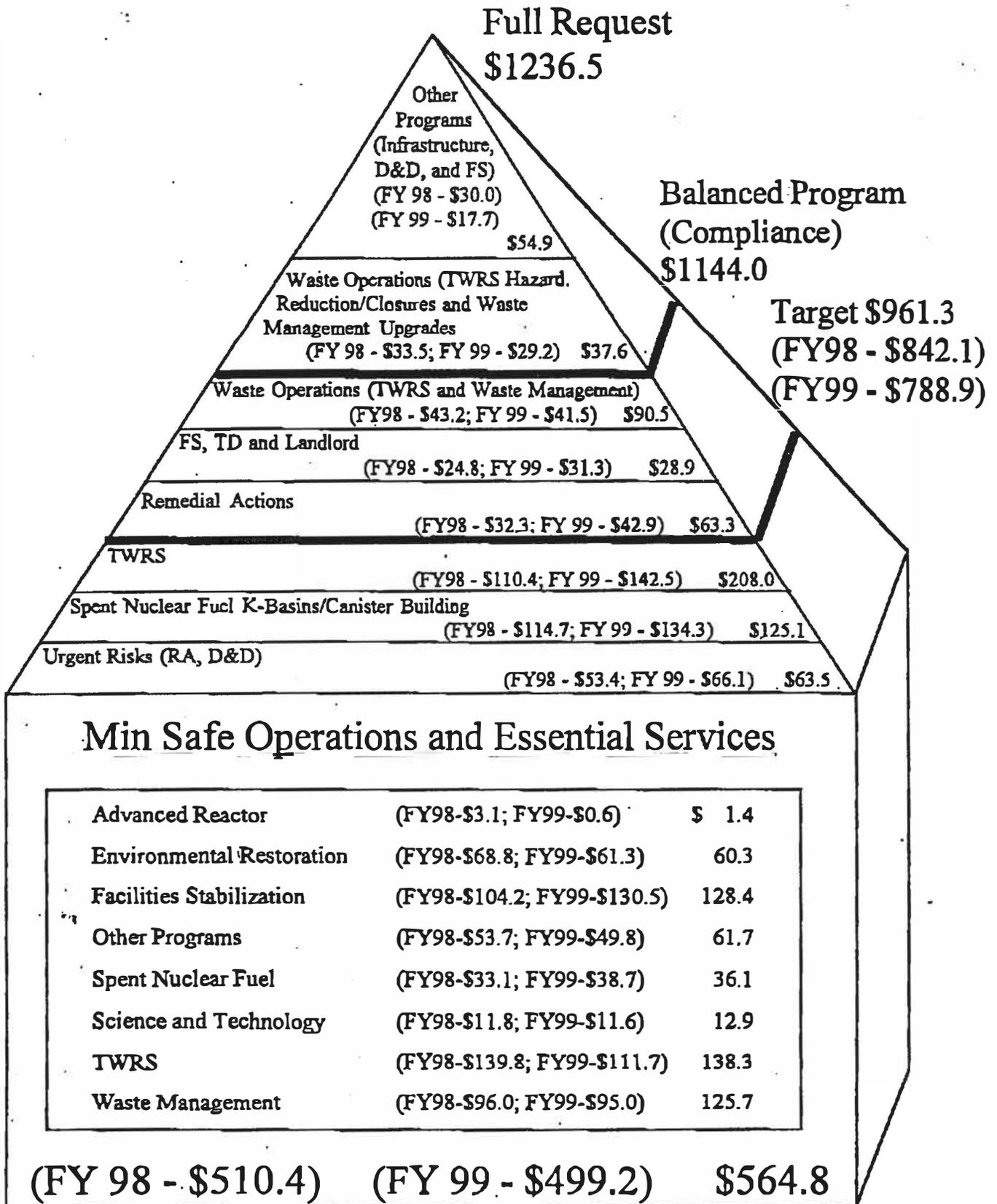
XII. Closing Remarks

K. Randolph committed to provided a copy of the C-Span video tape of the congressional hearings on the Spent Nuclear Fuel Project.

M. Blazek stated that she and Mike Grainey will need to meet with K. Randolph and J. Rasmussen when the Oregon budget request is ready.

Forum Was Adjourned.

FY 2000 Richland Operations Office Budget



Dollars in Millions



May 19, 1998

The Honorable Federico Peña, Secretary
U.S. Department of Energy
Forrestal Building
1000 Independence Avenue, S.W.
Washington, DC 20585

The Honorable Franklin Raines, Budget Director
Office of Management and Budget
Old Executive Office Building
17th Street & Pennsylvania Avenue, NW
Washington, DC 20503

Gentlemen:

I am writing to express my concern about the proposed budget for the U.S. Department of Energy for Fiscal Year 2000 and the amount of funding targeted for the cleanup of the radioactive wastes at Hanford.

The blueprint for Hanford cleanup is the Tri-Party Agreement crafted by the U.S. Department of Energy, the U.S. Environmental Protection Agency, and the state of Washington. With health and safety as its overarching goal, the agreement identifies which sites to clean up, the activities required for cleanup, and the timetable for completing the work. It is the tasks and activities specified in the agreement that should determine the level of funding for Hanford cleanup.

The funding for Hanford in the proposed budget for FY 2000 is 15 percent less than what is needed to achieve the milestones contained in the Tri-Party Agreement. That shortfall will mean a greater risk of contamination as the storage facilities holding the radioactive wastes deteriorate further and the leaks from those facilities seep toward the Columbia River. The specific activities that will be delayed or stopped altogether include a number of measures necessary for protecting the Columbia from contamination and preventing catastrophic accidents. They include a halt in the decommissioning of contaminated nuclear reactors along the Columbia River, a drastic reduction in the effort to remove the contaminated soil near the Columbia, a scaling back on the work to decontaminate radioactive groundwater, and delay in the retrieval and disposal of the highly radioactive wastes stored in leaking underground tanks. Overall, the shortfall will slow efforts to clean up the thousands of contaminated sites at Hanford, all of which pose some degree of risk to public health and safety.

Setting the budget for Hanford without consideration of the goals for cleanup is a short-run solution that will make future cleanup measures more complicated and more expensive. Ultimately, there will be no budget gain from sacrificing progress on the cleanup at Hanford.

The Honorable Federico Peña
The Honorable Franklin Raines
May 19, 1998
Page 2

The proposed budget also eliminates funding for Oregon's work at Hanford. Oregon has a big stake in what happens at Hanford — it's on the Columbia River and it's only 35 miles from Oregon's border. Any release of radioactive materials at Hanford, whether into the water or the air, poses a danger to Oregonians. I believe that a safe, effective cleanup at Hanford requires a strong Oregon voice.

I urge you to increase Hanford's budget for FY 2000 by 15 percent so that it is sufficient to fund the measures called for in the Tri-Party Agreement.

Sincerely,



John A. Kitzhaber, M.D.

JAK/NR/sm

cc: Governor Gary Locke, State of Washington
Oregon Congressional Delegation



Oregon

John A. Kitzhaber, M.D., Governor

Department of Consumer and Business Services

Office of Energy

625 Marion St. NE

Salem, OR 97310-0830

Phone: (503) 378-4040

Toll Free: 1-800-221-8035

Fax: (503) 373-7806

Web site: www.cbs.state.or.us/external/ooe/

Date: May 1, 1998

To: Congressional Staff Members

From: Mike Graine, Assistant Director


Subject: Hanford Budget Cuts

We are very concerned that the US Department of Energy will not have the necessary funding in either Fiscal Year 1999 or Fiscal Year 2000 to continue the management and cleanup of the Hanford wastes in a safe, effective manner. We believe that the US Department of Energy (USDOE) needs to receive from Congress at least the amount requested in its Fiscal Year 1999 budget request. We also believe that the OMB initial target to USDOE for Fiscal Year 2000 is inadequate and must be increased. The problems involving each fiscal year are discussed below. If you need more information, please call me at (503) 378-5489.

Fiscal Year 1999

Congress is considering a proposal to transfer from USDOE's Environmental Management Program between one half billion dollars and one billion dollars to the US Department of Defense for new weapons production. The USDOE Environmental Management Program is the funding source for the management and cleanup of the nuclear weapons wastes at Hanford and at other US Department of Energy facilities. The proposed reductions would result in slashing Hanford funding by \$150 million to \$250 million in Fiscal Year 1999.

The Administration requested \$5.6 billion nationwide for Environmental Management for all USDOE sites for Fiscal Year 1999. Under the Administration's request, Hanford would receive \$1.005 billion, which is about the same amount currently provided to Hanford. Even at this funding level, Hanford may not have sufficient funds to undertake the actions necessary to maintain the cleanup and safe storage of wastes as provided by the Hanford Tri-Party Agreement and recommended by the Defense Nuclear Facilities Safety Board. Instead, the Hanford site may still fall short by as much as \$76 million of what is needed even if all of the Administration's Fiscal Year 1999 budget request is approved by Congress.

April 30, 1998

Page 2

The reduction being considered by Congress would result in a 15% - 25% further reduction at Hanford from this level. The impact of a reduction of this scale on managing and cleaning up the wastes at Hanford would be enormous. Virtually all actual cleanup would cease. USDOE would be limited to funding measures which maintain the current waste storage situation.

Specific impacts caused by the proposed budget reduction include the following:

- eliminates all cleanup and decontamination efforts along the Columbia River.
- terminates operation of the Environmental Restoration Disposal Facility (ERDF). The ERDF has been the disposal site for radioactive material previously close to the Columbia River.
- ends all actions to gather and treat transuranic waste for shipment to the Waste Isolation Pilot Plant in New Mexico for permanent disposal.
- plutonium would continue to be stored in an unstablized form at the Plutonium Finishing Plant. Other needed safety measures at that facility would also be deferred.
- delays retrieval of the high level wastes in the Hanford storage tanks for at least two years.
- delays removal of the spent fuel from the K-Basins for at least one year. All work on the new Canister Storage Building which will hold the spent fuel would cease.

In addition, all funding for Oregon involvement in Hanford matters would cease. All funding for Oregon technical staff to review present waste management work and proposed new cleanup and decontamination work would be eliminated. (Oregon's prior technical work resulted in stopping liquid discharges to the soil, helped terminate operations of two weapons production facilities because of safety issues, PUREX and N-Reactor, and first raised the possibility of contamination of the groundwater from leaking tanks.) The budget reduction would also eliminate all emergency preparation and response in Oregon. This is despite the serious risks posed by numerous facilities at Hanford and the serious incidents which occurred at Hanford last year.

Fiscal Year 2000

While the Fiscal Year 1999 budget is being considered in Congress, the Administration is beginning preparation of the Fiscal Year 2000 budget. The Office of Management & Budget (OMB) has provided initial budget targets to USDOE Headquarters. At a time when the cleanup requirements at Hanford and at USDOE's other sites are increasing, the proposed OMB target for the USDOE Environmental Management Program for Fiscal Year 2000 is \$5.38 billion, which is a reduction of nearly 5% compared to the FY 1999 Administration budget request of \$5.6 billion.

Based on the OMB target, USDOE Headquarters provided the Hanford site with a target level of \$961 million for Fiscal Year 2000, even though USDOE currently estimates that \$1.114 billion is needed at Hanford to adequately address waste management and cleanup problems in Fiscal Year 2000. If the OMB target is not revised, Hanford is expected to have a funding shortfall of at least \$150 million, or 15% less than necessary to accomplish safely the cleanup and waste

April 30, 1998

Page 3

management measures provided in the Hanford Tri-Party Agreement and recommended by the Defense Nuclear Facilities Safety Board. The proposed FY 2000 funding level would cause significant problems at Hanford and in Oregon's ability to assure that Oregon concerns are adequately addressed.

The following adverse impacts would likely occur under the OMB target at Hanford for Fiscal Year 2000:

- eliminates all funding for technical review by Oregon of USDOE's proposed waste management and cleanup actions.
- eliminates all emergency preparedness and response in Oregon and Washington.
- causes a major reduction in most cleanup of waste sites at Hanford.; terminates most work focused on removing radioactive and chemically contaminated soils sitting yards from the Columbia River.
- reduces interim storage measures for reactors near the Columbia River,
- reduces the monitoring of high level waste tanks at Hanford, including the potentially explosive tanks.
- reduces the treatment of groundwater at many locations across the Hanford site, thereby increasing the likelihood that this waste will reach the Columbia River.
- defers treatment of the high level radioactive tank waste; most of the tanks have already exceeded twice their design life.
- eliminates funding for work with Tribal nations, consultation with affected citizens and advisory groups, including the Hanford Advisory Board.

The subsequent OMB targets reduce Environmental Management funding even further. OMB proposed targets are \$5.1 billion in 2001, \$4.9 billion in 2002 and \$5.1 billion in 2003.

Under the OMB targets for Fiscal Years 2001-2003, the deferrals and reductions in actual cleanup measures grow larger as will the number of unmet cleanup actions. By Fiscal Year 2003, the proposed reductions caused by the OMB targets would be so severe that most actual cleanup work would cease. Efforts at the Hanford site would largely be limited to trying to keep the high level radioactive waste storage situation from getting worse. The hazards would grow and the wastes would continue to move through the soil to the groundwater and then toward the Columbia River. The risk of a major accident would also grow.

The OMB Fiscal Year 2000 target should be increased so that Hanford and other USDOE sites can continue progress in cleanup in a safe, effective manner. The Fiscal Year 2000 target for Environmental Management should be increased, not decreased by nearly 5%. OMB targets for Fiscal Years after 2000 should also be revised to reflect the necessary work which must be done to manage and clean up these wastes in a manner which protects public health and safety.

**HANFORD REGIONAL
EFFECTS ASSESSMENT;
*LIGHTING THE PATH TO CLOSURE***

aka:

- Integrated Groundwater / Vadose Zone Project (GWVZ)
- Columbia River Comprehensive Impact Assessment (CRCIA)

Under Secretary Ernest Moniz

May 5, 1998

presented by

The CRCIA Management Team

WHY ARE WE HERE?

- ✦ To stress the need for iterative assessments of the expected Hanford effects on the region as a basis for acceptable waste disposal decisions by Tribes, stakeholders and regulators.
- ✦ To enlist support for developing an approach to converge the CRCIA and the GWVZ Plan.
 - Comparisons with the CRCIA will be discussed.
 - CRCIA familiarity will be provided as desired.

AGENDA

- ✦ Stakeholder acceptance of waste disposal decisions.
- ✦ GW/VZ and CRCIA objectives.
- ✦ Decisions under uncertainty.
- ✦ Improving Hanford's credibility.
- ✦ A conceptual view of CRCIA.
- ✦ Summary

Provide Basis for Full Stakeholder Acceptance of Waste Disposal Decisions

- ✦ Team strongly supports Hanford funding.
 - Move spent fuel and wastes away from the river.
 - Stabilize and contain leaking tank waste.
 - Ensure safety of facilities and interim stored wastes.
 - Protection and Cleanup of Groundwater.
- ✦ Many decisions are acceptable by regulatory criteria while being unacceptable to Tribes and stakeholders.
 - There are serious stakeholder concerns which regulations do not address.

Provide Basis for Full Stakeholder Acceptance of Waste Disposal Decisions

- ◆ Decisions affecting waste isolation must consider:
 - Understanding of cumulative Site-wide effects on region.
 - Understanding of the uncertainty in the estimated effects.
 - Understanding of needed safety margins in disposal solutions to off-set uncertainties.
- ◆ Site endstates must be defined:
 - Necessary to understand source of effects.
 - Should be explicit, site-specific, requirements-driven descriptions for review by the potentially affected people.
 - Decisions on disposal solutions must be based on meeting requirements, including regional effects.

Provide Basis for Full Stakeholder Acceptance of Waste Disposal Decisions

- ◆ Several key decisions should be evaluated for river and regional impact:
 - Shipment of off-site wastes to Hanford.
 - Planned 200 Area endstate, including vadose & groundwater.
 - Tank retrieval and closure.
 - Planned burial ground(s) endstate.
 - Containment performance of liners and surface barriers.

What Is The CRCIA For?

✦ CRCIA Purpose:

The purpose of the Columbia River Comprehensive Impact Assessment (CRCIA) is to assess the effects of Hanford-derived materials and contaminants on the Columbia River environment, river-dependent life, and users of river resources.

For the CRCIA to be comprehensive, representatives of the major community groups (non-DOE) on the CRCIA Team have agreed that the following objectives must be achieved if the results and conclusions are to be acceptable by all concerned:

- Estimate, with useful certainty, river-related human health and ecological risks for the time period that the Hanford materials and contaminants remain intrinsically hazardous
- Evaluate the sustainability of the river ecosystem, the interrelated cultural quality-of-life, and the viability of socio-economic entities for the time period that Hanford materials and contaminants remain intrinsically hazardous
- Provide results that are useful for decision making on Hanford waste management, environmental restoration, and remediation.

Why Is CRCIA Needed?

✦ Some of the historical concerns:

Previous assessments of the Hanford impact on the Columbia River have been performed to provide information for specific projects and have not been comprehensive. The following is a partial list of examples of why previous assessments have not been comprehensive:

- The effectiveness of DOE's approved plan for Site-wide remediation and disposal/closure has not been evaluated, in part because the source term data used has drawn from various listings of known inventories of materials and wastes in their existing states; the planned end states of the wastes have not been reflected in the data used.
- A composite source term has not been used which combines the effects of all chemical and nuclear materials and wastes within the geographical boundaries of the Hanford Site.
- Predictive cumulative effects of Hanford's multiple contaminant sources have not been addressed.
- The time frame considered for potential impacts to occur has been inconsistent with (1) the point at which planned waste containment devices can be expected to eventually be breached allowing contaminant migration to the River, and (2) the period during which potential contaminants remain intrinsically dangerous.
- River-borne contaminant impacts on human health have considered incremental cancer risk and hazard quotients. The full suite of potential health effects are normally not addressed.
- Effects assessments usually focus on human health. Ecological effects are often ignored and socio-cultural effects are never assessed.

Significance of the CRCIA

- ◆ Estimates suitability of planned cleanup.
- ◆ Evaluates interacting effects:
 - Among Hanford projects.
 - Among potential contaminants.
- ◆ Provides answers to decision makers.
- ◆ Provides independent evaluation of overall cleanup and alternatives.
- ◆ Fills crucial role being performed by nothing else.

CRCIA Puts Headlights On The Hanford Cleanup

GW/VZ and CRCIA Objectives

- ◆ Purpose: CRCIA estimates effects; GW/VZ integrates vadose/GW activities.
 - CRCIA: estimate the present and future Hanford effects on the region as affected by river-borne contaminants from cleanup operations and disposal decisions (paraphrased).
 - GW/VZ:
 - ... develop a sitewide strategy to assess impacts of Hanford Site contaminants in the vadose & groundwater ... (pg ES-1)
 - ... achieve and control integration of site-wide activities ... (1-3)
 - ... develop a sound scientific basis for determination of the cumulative impacts of all Hanford Site wastes. (D-6)
- ◆ Do CRCIA and GW/VZ purposes differ?
 - If so, why? If not, why rewrite CRCIA?
 - This is the root cause of the divergence between the two.

Decisions Under Uncertainty

- Decisions dependent upon natural systems, such as Hanford's vadose, groundwater, and river pathways, will always be highly uncertain.
- Uncertainty is a function of the state of understanding the physical phenomena and the extent of effort (funding).
- Use of safety margins is a standard practice in most engineering and environmental design.
- Greater uncertainty demands greater safety margins.
- Reducing uncertainty must be balanced with the higher cost of large safety margins.
- Advances in Science and Technology can be a major factor in reducing uncertainty if selected based on their contribution to uncertainty.

11

Improving Hanford's Credibility

- Tribes & stakeholders distrust Hanford studies.
 - Hanford must understand and protect the potentially affected people, their cultural lifestyles, and the environment.
 - Actions must be consistent with commitments.
 - Study assumptions and reports must be unbiased.
 - Oversight panels must be interdisciplinary as well as fairly represent all affected parties.
 - Models must have site-specific and case-specific validation.
- Affected people must share in the decision making process.

12

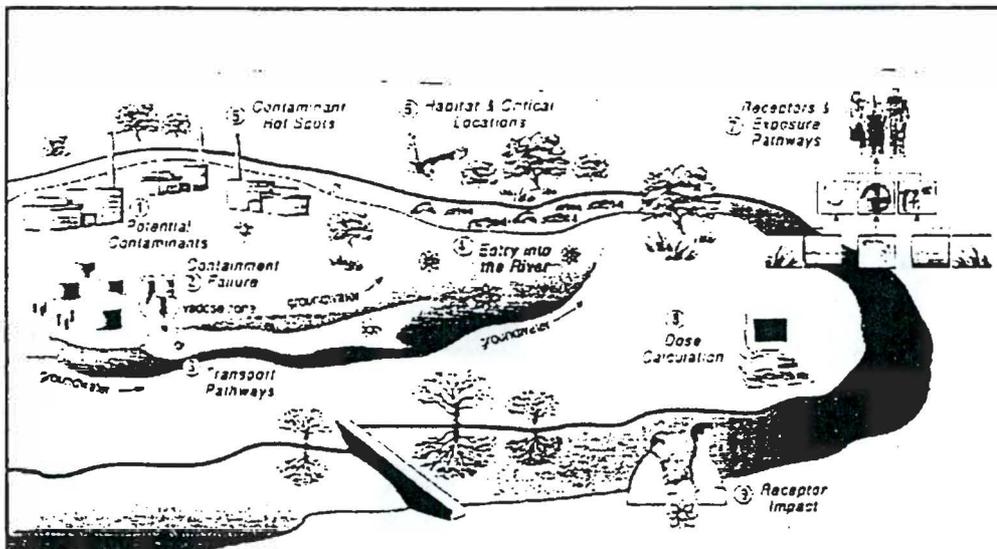
Improving Hanford's Credibility

- ✦ Therefore, independent direction of the assessment's performing contractor seems essential to acceptability of results¹.
 - Common practice for the evaluator to be independent of the agent performing the work.
 - Solutions compatible with procurement limitations are fairly common but must be worked out for the assmt.
- ✦ Concept is consistent with Headquarters' Independent Project Review Process

¹This applies only to the conduct of the assessment, not direction of the interfacing projects or decision-making which may use the assessment's results.

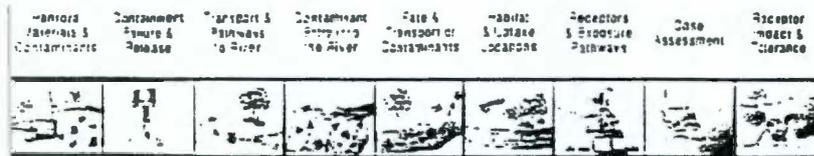
13

A Conceptual View of CRCIA



A Conceptual View of CRCIA

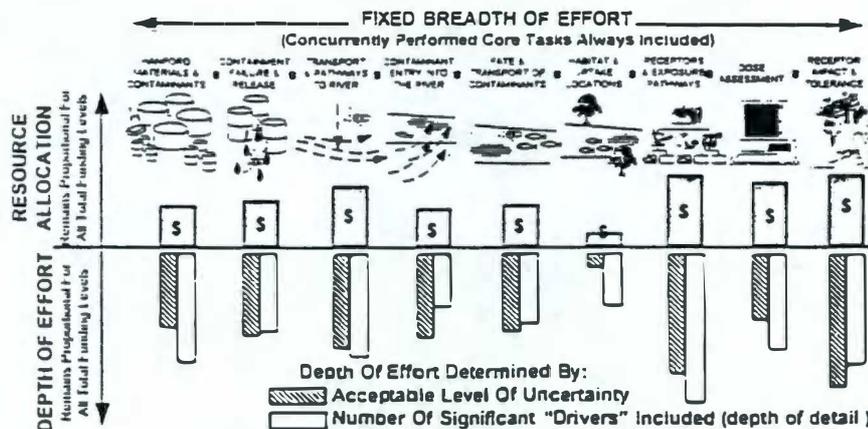
- ◆ An uncluttered "cause-to-effect" architecture:



- ◆ Scope expands only in depth; breadth is constant.
- ◆ Adapts to timing and funding constraints:
 - With more resources, progressively more detail is included.
 - Criteria ensure excluded factors are always less important.
- ◆ Uncertainty is always estimated and controlled:
 - Including more factors reduces uncertainty.

15

A Conceptual View of CRCIA



OBJECTIVE: • Reduce Biggest Source(s) of Uncertainty Controlling Total Uncertainty.
 • Ensure All Excluded Factors Contribute Less Than Those Included.
"PRIORITIZATION" Means Selecting The Acceptable Level Of Quality Of End Result.

16

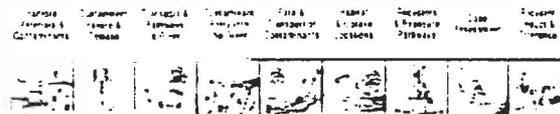
A Conceptual View of CRCIA

- ◆ What are "Requirements?"
 - Forms an at-least-as-good-as floor on how the assessment is to be conducted.
 - Derived from issues and concerns held by those most likely to be affected.
 - "Receptor's" perspective; i.e.,
 - Population groups, cultural lifestyles, regional economies, ecological receptors, and ecosystems.

17

A Conceptual View of CRCIA

CRCIA Structure

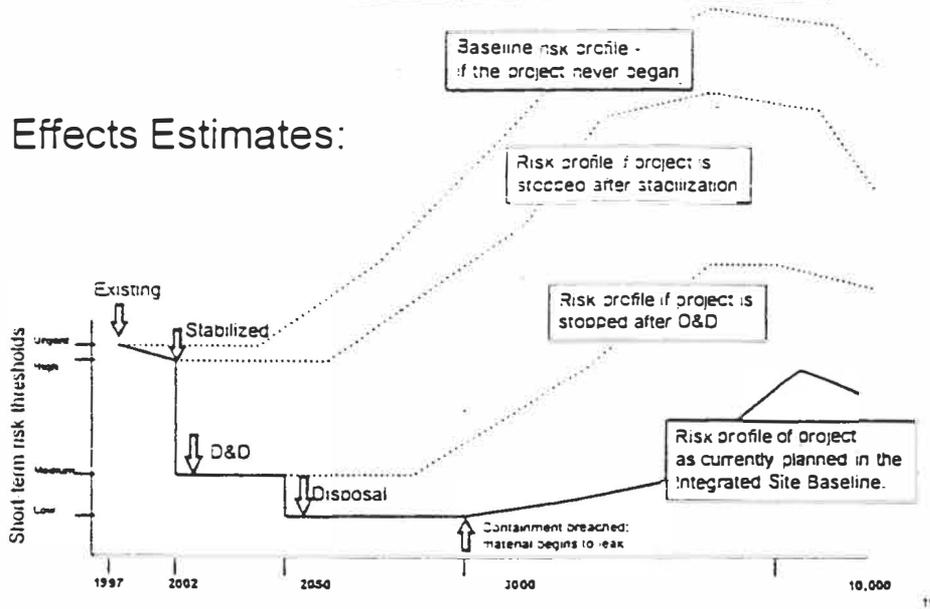


• Principles & General Rqmts									
• Uncertainty									
• Region assessed									
• Time period									
• Standards & regulations									
• Use of other studies									
• What the Assessment Must Include									
• How Good Must the Assessment Results Be									
• Analytical Approach & Methods									
• Conducting and Managing the Assessment									

18

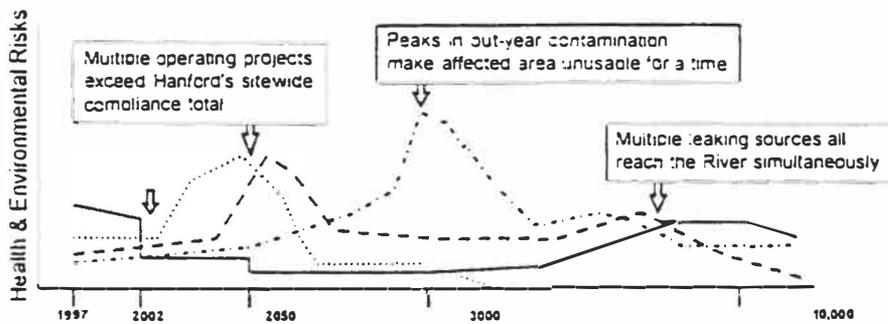
A Conceptual View of CRCIA

◆ Effects Estimates:



A Conceptual View of CRCIA

◆ Effects Estimates:



GW/VZ and CRCIA Comparison

Scope Specified	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8	Area 9
CRCIA / GWVZ	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8	Area 9
Factors Included	Y/N	Y?	Y/N	Y?	Y?	Y?	Y?	Y?	Y/N
How Well Assessed	Y/N	Y	Y/N	Y?	Y	Y	Y	Y	Y/N
Assmt Methods	Y/N	Y	Y/N	Y	Y	Y	Y	Y	Y/N
Mgmt and Control	Y/N	Y	Y/N	Y	Y	Y	Y	Y	Y/N
Uncertainty	Y/N								
Relative Importance	Y/N								
Remediation Options	N/Y	N/Y	N/Y	N?	N	N?	N	N?	N?
Regulatory Pathway	N/Y	N/Y	N/Y	N/Y	N	N	N	N?	N?
Monitoring	Y/N	Y?	Y/N	Y/Y	Y?	Y?	Y?	Y?	Y/N

 Areas presently emphasized in GWVZ

Note: GWVZ requirements are unspecified

21

CRCIA: Help or Hindrance?

- Objectively assesses the effectiveness of cleanup dollars.
- Provides reusable analytical tools to aid in budget analysis.
- Provides defensibility of appropriation requests.
- Lessens probability of costly correction of ineffective decisions.
- Establishes a meaningful forum for interacting with the potentially affected people and assimilating legitimate needs.
- Brings decision makers face-to-face with the projected human and ecological consequences of their decisions.
- Personalizes the technical community's understanding and concern for the potentially affected people.
- Improves credibility of cleanup decisions.
- Could establish opportunities for sharing cleanup decision making and accountability with stakeholders.
- Enables stakeholder acceptance of cleanup decisions.
- Necessitates integration among Hanford activities.

22

Drivers for the CRCIA Process

- ◆ Secy of Energy success yardstick between Governments
- ◆ 5400.5, 5400.1, 5820.2a, Executive Order 12898
- ◆ Trust responsibility to sovereign nations
- ◆ Environmental justice
- ◆ Hanford Advisory Board consensus advice
- ◆ Tri-Party Agreement commitments
- ◆ National Environmental Policy Act of 1969
- ◆ Hanford Strategic Plan
- ◆ Comprehensive Environmental Response, Compensation, and Liability Act of 1980
- ◆ Washington State Model Toxic Control Act
- ◆ Comprehensive Approach (Defense Nuclear Facilities Safety Board 94-2)
- ◆ Protection of the Columbia River (DOE commitment and principle)
- ◆ Future Site Uses Working Group Recommendation
- ◆ DOE Asst Secy Alm's Salt Lake City "mini-summit", July 1997

23

Summary

◆ Decisions

- Timely estimates of Hanford effects - based upon requirements from the potentially affected people and regulators - is essential to acceptance of waste disposal decisions by stakeholders and regulators, i.e., site endstate definition.

◆ Improving Credibility: a major challenge

- Oversight panels and partnering help but may be insufficient to achieve credibility needed.
- Independent direction of the assessment's performing contractor may be the only acceptable course, but procurement details need to be worked out.
- A path forward needs to be developed.

24

Summary

◆ GWVZ Project

- Should be expanded to embrace scope and concepts of CRCIA as DOE-RL committed Feb 26, 1998.
- Presently lacks sufficient purpose and clarity to determine if it could meet the needs of a meaningful decision process.
- Puzzling why its purpose should be different than CRCIA. If the same, why redefine the effort?
- **Acceptability of GWVZ by the State of Washington, tribal sovereign nations, stakeholders, and EPA depends upon embracing the scope and concepts of CRCIA.**

25

CRCIA Team

- Confederated Tribes of the Umatilla Indian Reservation
- Nez Perce Tribe
- Yakama Indian Nation
- State of Oregon
- Hanford Advisory Board
- U. S. Department of Energy
- U.S. Environmental Protection Agency
- State of Washington, Department of Ecology
- Hanford contractors

25

Technical Peer Review Panel

- ✦ Dr. James L. Creighton
- ✦ Dr. Elaine Faustman
- ✦ Ms. Kathleen Goodman
- ✦ Dr. Kathryn A. Higley
- ✦ Dr. Janis E. Hulla
- ✦ Dr. Joel W. Massman
- ✦ Dr. May O'Brien
- ✦ Dr. Glenn W. Suter II
- ✦ Dr. Frieda B. Taub
- ✦ Dr. F. Ward Whicker
- ✦ Dr. Ruth Weiner

27

WHAT WOULD A REGIONAL EFFECTS ASSESSMENT COST?

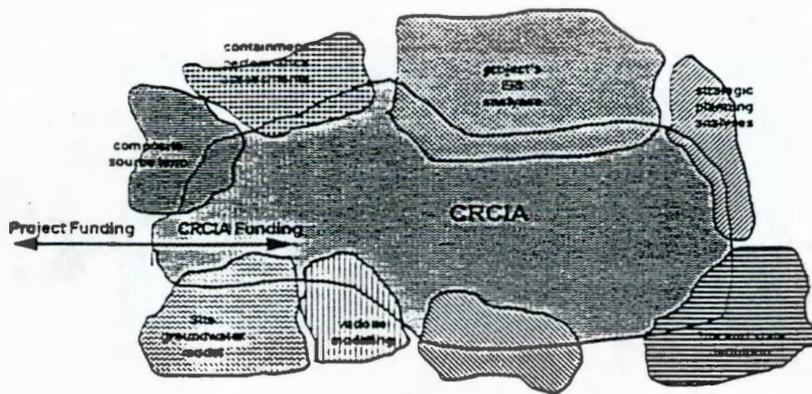
- ✦ Better assessment = less uncertainty
= less costly cleanup
- ✦ Cost estimate assumes:
 - an acceptable level of uncertainty in results.
 - rough, preliminary results in 1st and 2nd years.
 - updates in 4th and 5th years.
- ✦ Five year estimated cost: **\$23.8M**

	FY 99	FY00	FY01	FY02	FY03
Manpower (FTE)	14.5	32.5	33.3	29.0	7.0
Analytical & Sampling (new data collection)	\$300	\$900			
Estimated Cost	\$2,510	\$6,750	\$7,020	\$5,22	\$1,260

estimate made April 22, 1997

28

CRCIA Integration & Cost Avoidance



206



Oregon

John A. Kitzhaber, M.D., Governor

Attachment 5

Department of Consumer and Business Services

Office of Energy

625 Marion St. NE

Salem, OR 97310-0830

Phone: (503) 378-4040

Toll Free: 1-800-221-8035

FAX: (503) 373-7806

Web site: www.cbs.state.or.us/external/ooe/

May 27, 1998

Felix Miera
USDOE-RL MS-A5-15
625 Jadwin Avenue
Richland, WA 99352

Dear Mr. :

Our Memorandum of Understanding (MOU) signed in August 1997 calls for quarterly progress reports. As discussed, these reports will be made on the same schedule as the quarterly reports for the Oregon grant. This report covers the time period November 1, 1997 - March 31, 1998.

In general, Oregon is pleased with the activities accomplished under the MOU. Our first meeting was held September 26, 1997. Meetings were also held November 5, 1997, January 26, 1998, and March 30, 1998. We find these bi-monthly meetings, now referred to as Forum Meetings, a good way to foster working relationships and enhance substantive communication between our two agencies.

We have seen marked improvement in the information provided to us by the Richland Field Office (RL). We are very pleased with the increased level of commitment to include our agency and Oregon stakeholders in the budget process. Given the increasing importance of budget issues, it is imperative that we continue to have access to the meetings and discussions in which budget decisions are considered and eventually made.

As the MOU directs, we have been receiving copies of Tri-Party Agreement (TPA) correspondence which RL sends to Washington Ecology and the Environmental Protection Agency. We also find that the Forum meetings provide us with an appropriate and regular opportunity to hear about ongoing and upcoming TPA negotiations.

Felix Miera
May 27, 1998
Page 2

We received adequate and timely notification about the Columbia River Comprehensive Impact Assessment meeting in early May in Washington DC. And, as we earlier indicated in writing, we were pleased with how RL provided information to us during the picric acid incident. While some were critical of RL for overreacting, we found RL's response to be appropriate.

We still had a few instances where information was not shared in a timely manner or Oregon did not receive adequate notification of upcoming meetings or events. One instance involved an Oregon visit by USDOE HQ which highlighted the need for HQ involvement in the Forum meetings.

We are concerned about RL's notification of the recent tritium release. We were not given early notice of the incident, and we found the news release to contain inadequate information for our needs. Criteria for non-emergency notifications is in draft now. We expect agreement on these procedures by June. Implementation of these procedures should resolve this issue.

Our quarterly report describing Oregon Office of Energy's products and activities is attached.

Sincerely,



Mary Lou Blazek
Administrator
Nuclear Safety Division
Oregon Office of Energy



Oregon

John A. Kitzhaber, M.D., Governor

Department of Consumer and Business Services

Office of Energy

625 Marion St. NE

Salem, OR 97310-0830

Phone: (503) 378-4040

Toll Free: 1-800-221-8035

FAX: (503) 373-7806

Web site: www.cbs.state.or.us/external/oe/

May 27, 1998

Mr. Jamie Zeisloft
USDOE-RL
3350 George Washington Way, MSIN HO-12
Richland, WA 99352

Dear Mr. Zeisloft:

Enclosed are the reports you requested on May 19. This package replaces the pages faxed to you on May 20.

The second quarter Financial Status Report (FSR) was mailed to Melanie Fletcher on April 27, 1998. A copy is enclosed. You'll note it shows a \$151,357 deficit.

We did not receive our Notice of Financial Assistance Award for the funding period beginning November 1, 1997, until May 15, 1998.

On April 30 we submitted a Revised Application to reflect actual carryover. This reduced the amount of the carryover approved in Amendment A013 from \$159,750 (estimated) to \$96,554 (actual).

Given the timing of the award and carryover revision, they cannot be reflected in the FSR. So, in order to get this information to you in time for your May 20 meeting with Headquarters, we used simple math (unofficial, but reasonably accurate). Factoring in the recent award and actual carryover figure, the 3/31/98 balance would be about \$358,197. That's just over half the award at the midpoint of the funding period.

A listing of Oregon's accomplishments under this grant is attached. The accomplishments are inserted in the existing work plan to show the relationship between plans and outcomes.



Mr. Jamie Zeisloft
May 27, 1998
Page 2

You asked about cost reduction initiatives. As you know from our discussions, our small staff is spread very thin to cover the tasks in our work statement. We take every opportunity to attend meetings via conference call to avoid travel expenses. We routinely limit meeting attendance to one staff person and design meeting schedules to leverage travel. In addition we take advantage of low cost/no cost meeting space when meetings are conducted in Oregon.

Another cost reduction initiative that affects RL's budget is the use of Oregon staff to facilitate public meetings. Oregon staff facilitated a number of public meetings for RL during the reporting period saving the additional cost, often considerable, of an outside facilitator.

Please contact me if you have any questions about this report or Oregon's program.

Sincerely,

Mary Lou Blazek
Administrator
Oregon Office of Energy



Oregon

John A. Kitzhaber, M.D., Governor

Department of Consumer and Business Services

Office of Energy

625 Marion St. NE

Salem, OR 97310-0830

Phone: (503) 378-4040

Toll Free: 1-800-221-8035

Fax: (503) 373-7806

Web site: www.cbs.state.or.us/external/oe/

April 28, 1998

Melanie Fletcher
U.S. Department of Energy
Richland Operations Office
Procurement Division
P.O. Box 550 MS A7-80
Richland, WA 99352

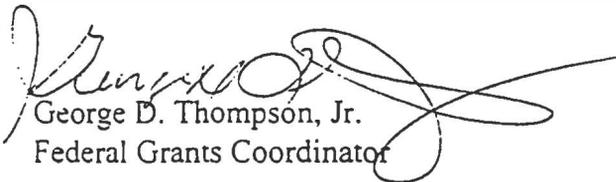
RE: Quarterly Financial Status Report, Hanford, Grant No. DE-FG06-94RL12803

Dear Melanie:

Enclosed are three (3) copies of the financial status report for the quarter ended March 31, 1998. In addition, here is a fully signed copy of Modification A013.

In the very near future, we will submit a revised application reflecting actual carryforward. This application will be based upon our final carryforward figures for the period ended 10/31/97.

Sincerely,



George D. Thompson, Jr.
Federal Grants Coordinator

::gdt.corresp\fsr2ltr.wpd

NOTE: The Quarterly Report in its entirety is attached to and is part of the minutes of record for the May 28, 1998 State of Oregon and U.S. Department of Energy Forum. Due to its volume it is not attached to this copy of the approved minutes. Copies of the Report may be requested from Felix Miera of the U.S. DOE (509) 373-7589 or Ron Morrison of FDH (509) 376-6574.