

**HANFORD ADVISORY BOARD
ENVIRONMENTAL RESTORATION COMMITTEE**

Summary of Meeting
8 February, 1995 - 9 - 3 pm
EPA, Richland Washington

Chairperson. Ralph Patt called the meeting to order, and initiated introductions. Those present were: Committee members, Marty Bensky, Denny Condotta, Greg deBruler, Ray Isaacson, and Ralph Patt; ex-officio member John Erickson, Department of Health; agency representatives, Greg Eidam, Bechtel; Jeff Breggeman, Randy Brich, Mike Thompson, Nancy Werdel, Sue Weissberg, Jon Yerxa, DOE; Dib Goswami, Chuck Cline, Jack Donnelly, Keith Holliday, David Holland, Wayne Soper, Phillip Staats, Jerry Yoker, Ecology; Paul Beaver, Larry Gadbois, Kevin Oates, Doug Sherwood, EPA; Paul Eslinger, Steve Friant, Bruce Napier, Dillard B. Stupler PNL; William Sanderson, WHC; and facilitator Naseem Rakha, Confluence Northwest.

The reading and approval of minutes of committee's last meeting was postponed until the next meeting.

TOPIC: RISK ASSESSMENT TRAINING:

The Committee discussed the need for further enlightenment on risk issues. Jon Yerxa, DOE-RL, discussed the status of a proposed Risk Assessment Training Workshop sponsored by DOE-HQ. Members agreed to ask DOE for a shorter workshop that also would accommodate the Board's Health, Safety, and Waste Management Committee.

DECISION:

Mr. Yerxa and Mr. Patt will meet with DOE-HQ 452 in Washington, DC next week to discuss a special workshop agenda tailored to the need of the two committees.

TOPIC: RISK ASSESSMENT POSTER SESSION:

The Committee agreed to take a poster session to the March Board meeting. Posters will illustrate risk assessment, management, and evaluation. A DOE risk expert will be on hand to informally answer questions and discuss risk issues.

DECISION:

Mr. Yerxa and William Sanderson, WHC will work with the Chair to develop posters and a handout.

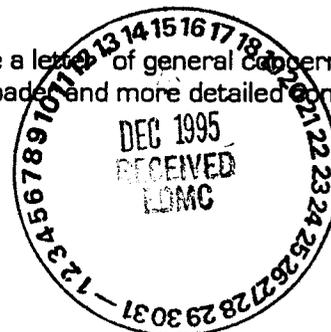
TOPIC: ER RESPONSE TO CERE:

The Consortium for Environmental Risk Evaluation (CERE) is under contract to EMS to "conduct a comprehensive, technically sound, independently managed and credible review and evaluation of existing DOE weapons complex risk assessments and remediation cost estimates and to identify and track issues of public concern." CERE operates out of Tulane and Xavier universities.

The Board's agenda committee, in a February 7 conference call, asked the ER Committee to submit written comments regarding the CERE process to Confluence Northwest in time for the February 14, Board mailing.

It is unlikely the committee will receive the CERE draft report before March. Mr. Patt attended a CERE workshop in Salt Lake City earlier on the week. He said he is willing to comment on parts of the draft report that likely will not change. But, he said, he is not ready to make critical comments on the draft itself because some changes will be made. He said he would do what he can for the March Board mailing. But the committee's final recommendation to the Board will be presented at the April meeting. The CERE report will go to Congress in June.

EPA's Doug Sherwood suggested that the committee might write a letter of general concern for Board approval in March. The committee could then prepare broader and more detailed comments for Board approval in April.



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Mr. Sherwood said that "no one supports the CERE report - not DOE, not Ecology, and not the EPA - not anyone other than the CERE team members." He said the CERE premise relies on "institutional controls in perpetuity" to assure minimum off-site impacts.

That flies in the face of conclusions reached by both the Hanford Futures Site Uses Working Group and the Tank Waste Task Force. He recommended that "as many groups as possible" send that message when the draft report arrives for review. Mr. deBruler said all of CERE's flaws should be pointed out to the Board before the draft comes out.

Members discussed the notion that risk analysis will surely be linked to funding. Sites that can document the highest risks likely will get funding priorities. That will create a competition in which each site will try to look worse than the others.

Mr. Patt agreed. He said he fears this approach would put Hanford "far down the list." This might be offset somewhat, he added, if "old guard" managers at some DOE sites remain in denial that their sites have serious contamination. Mr. Patt said he will bring up the issues at the Site-Specific Advisory Boards meeting in Washington DC, next week.

DECISION:

Mr. Patt will prepare his comments on the CERE process for submission to the Board packet by February 14.

TOPIC: ECOLOGY COMMENTS ON BUDGET IMPACT TO GROUNDWATER REMEDIATION

A presentation by Ecology's Dib Goswami revealed:

- Vapor extraction of carbon tetrachloride from the soil column is working very well," but DOE has produced "minuscule" results from efforts to pump and treat carbon tet.
- If DOE ceases remedial groundwater activities, groundwater carrying 2800 to 3000 parts per billion of carbon tet will reach the Columbia River 100 years from now. Carbon tet is a powerful carcinogen; those amounts far exceed drinking water standards.
- It is "firm" that there will be no funding for pump and treat in the FY 1997 budget.

Mr. Isaacson felt the to ignore this contamination borders on criminal. Mr. Patt asked that the three parties come to the next meeting with more information about the results of pump and treat and potential costs if pump and treat if not funded. Mr. Patt is specifically interested in more information about the B-5 well where Strontium 90 levels have dropped significantly, as well as information on Chromium levels. Additionally Mr. Patt asked that Mike Thompson provide information regarding the amount of dollars allocated for alternative technology research in the H area where researchers have been experimenting with altering the chemistry of contaminants. Mr. Patt wants the ER Committee to go to the Board with a statement about pump and treat at the April meeting.

DECISION:

At the March 3, ER Committee meeting the three parties will discuss:

- * Success of the pump and treat program
- * Cost of program
- * Results of B-5 reverse well
- * Consequences of dropping the pump and treat program (what are the consequences, cost and risk if the contaminants get to the river?)
- * What has been spent on alternative technology research at the H area?
- * The ER Committee will prepare a statement regarding proposed budget cuts to pump and treat for the Board's April meeting.

TOPIC: COLUMBIA RIVER ASSESSMENT/BLUE RIBBON PANEL

Mike Thompson reviewed previously taken steps to develop a Columbia River Assessment. He spoke about the need to establish a credible independent peer review panel to review PNL's work on Columbia River contamination and the contamination's effects on human and environmental health. Mr. Thompson stressed that the DOE must move quickly or the money for this project could be lost.

In an effort to establish this panel, Mr. Thompson met with Bill Funk and Ken Williamson, respective directors of the Washington and Oregon Water Resource Institutes. Both men agreed to review nominations for the panel and make membership recommendations to DOE. Mr. Thompson said the panel's work could be done by the end of FY 1996, but only if it gets underway soon. Mr. Thompson handed out a letter requesting panel nominations from the tribes, stakeholders and agencies. The letter spelled out the criteria Mr. Thompson felt would be important to develop a credible board. (Appendix item A). Mr. Thompson hoped to have nominations for the panel in by February 28, 1995.

Committee members expressed concern that the process was being "fast tracked" without adequate public, agency, and tribal input. Mr. deBruler suggested that all interested and effected parties should be involved in a "round table" discussion, to review DOE criteria for the panel, and develop recommendations regarding the makeup, mission, and nature of this group. Mr. deBruler felt this input was critical and necessary for DOE-RL to establish a credible river study.

DECISION:

The ER Committee will host a meeting Friday, February 24, from 10 am until 2 pm. The purpose of the meeting will be to discuss the Columbia River Impact Assessment Technical Panel. Tribal representatives will be invited by Mr. deBruler. Discussion at the meeting will include criteria for technical panel nomination, and function of the panel.

TOPIC: 100 AREA

Greg Eidem, Bechtel, gave a brief overview of the DOE 100 Area presentation scheduled for release to the HAB on March 2, 1995. The Committee asked Mr. Eidem to review his presentation with reference to how he will address ER Committee questions outlined during previous meetings. Mr. Eidem indicated that a number of the ER committee questions will be not be addressed because they either do not fall under the scope of this specific presentation, or they are irrelevant to how DOE-RL is approaching its work in the 100 Area. Mr. Eidem indicated that Linda McClain will give the 100 Area presentation to the HAB.

Specifically, Mr. Eidem pointed out that the discussion about "unrestricted use" is not appropriate in the 100 area, because the cleanup scenarios in the Sensitivity Analysis do not achieve an "unrestricted use" level. Furthermore, the term "unrestricted use" has questionable use given that there are so few examples of truly unrestricted use, even in uncontaminated areas; policies, ownership, zoning, and other variables all add restrictions of one level or another.

Mr. Eidem also indicated that reactor removal, as a subject, will not be dealt with in any great detail, other than to point out that the "shadow" (or path of transport) of the reactor will not be cleaned until after reactor removal.

There was some discussion about the Interim Record of Decision process and how it fits into the final ROD. Kevin Oates suggested that the ER Committee consider having a poster session to outline the ROD process.

TOPIC: CONTAMINANT OF CONCERN DOCUMENT

Bruce Napier, PNL, gave a presentation about the Contaminant of Concern document (Appendix item B). The document is part of the Columbia River Impact Assessment, and is part of the work that the technical panel would review. The object of the study is to determine if remediation of the river needs to occur immediately.

Mr. Patt expressed concern that the 500 foot test ground boundary around the river would leave out reactors and contamination associated with reactors.

HANFORD ADVISORY BOARD
ENVIRONMENTAL RESTORATION COMMITTEE
DRAFT Summary of Meeting
24 February, 1995 - 10 - 3 pm
EPA, Richland Washington

Chairperson. Ralph Patt called the meeting to order, and initiated introductions. Those present were: Committee members, Marty Bensky, Denny Condotta, Greg deBruler, Ray Isaacson, and Ralph Patt; ex-officio member John Erickson, Department of Health; agency representatives, Randy Brich, Mike Thompson, DOE; David Holland, Jerry Yokel, Ecology; Dennis Faulk, Larry Gadbois, EPA; Guests, Allan Danielson, Washington Department of Health, Tom Gilmore, Confederated Tribes of the Umatilla Indian Reservation, Harold Heacock, TRI-DEC; William Sanderson, WHC; and facilitator Naseem Rakha, Confluence Northwest.

TOPIC: COLUMBIA RIVER IMPACT STUDY, TECHNICAL PANEL

The ER Committee met to discuss and come to agreement about the selection process and the purpose of the Columbia River Impact Study Technical Panel. Specific points of discussion included: role and purpose of the technical panel; who nominates the panel, who reviews and selects the panel; what criteria will be used to select panel; who develops the criteria; how does the panel interact with one another, Tribes and Stakeholders; how will Tribes and Stakeholders be involved?

Mike Thompson began the meeting by handing out a section of the Tri-Party Agreement, which outlined agreed upon criteria for the technical panel. The agreement states that "...data analyses and decisions (of the Columbia River Impact Study) will undergo peer review by a technically qualified independent group, acceptable to Ecology, EPA and DOE." Mike stressed that should the Hanford Advisory Board recommend changes to any of these criteria, the three parties would have to "go back to the table." The purpose of the study is to determine the current level of risk to human health and the environment from Columbia River radiological and chemical contamination.

The Committee agreed that the purpose of the Technical Review Panel was to assure that the Columbia River Impact Study was credible and based its findings on "good science". The manner in which they would do this would be to review all aspects of the study, its documents, and findings, and comment and recommend to the DOE how to improve the integrity of the process and the science. It was also agreed that in order for the study to be credible, the participation of Stakeholders and Tribes was critical.

Meeting participants were in favor of moving forward with the Technical Review Panel as soon as possible. The discussion largely focused on deficits in Stakeholder and Tribal participation in the process thus far, how to correct those deficits, and how to assure that the study is fair, balanced, and participative. Specifically, both Greg deBruler and Tom Gilmore were particularly concerned about the level of involvement of Stakeholders and Tribes. They felt that input regarding the process had not been solicited in a timely or effective enough manner. Mr. Gilmore referred to the National Academy of Science Report Building Consensus as a guide that the DOE should use in developing risk assessment procedures at Hanford. The report gives examples of the types and levels of involvement necessary for a highly participative and genuinely credible process to be developed.

Ray Isaacson's primary concern with the process was that it did not become "overkill". That is, the peer reviewers must be practical, and the applications of science and technology must be appropriate to the needs of the study and the people impacted by the study. He also stressed his hope that panel members are free of personal agendas.

Mike Thompson handed out a draft of the DOE's Technical Reviewer Qualification Criteria and Selection Process Columbia River Comprehensive Impact Assessment. This draft is a revision of the one issued on February 8. The new draft includes recommendations made at separate meetings by both the ER Committee and the Tribes. Specifically, this new draft has relaxed the required

qualification of Ph.D. to a requirement of an earned graduate degree in a technical field with a desired doctorate of Medicine or Ph.D. Changes also include a requirement that no panel member have a financial conflict of interest.

Under the DOE plan the nominations for the Technical Review Panel would be given to Dr. Bill Funk and Dr. Ken Williamson, Directors of the Washington and Oregon Water Resource Institutes. Funk and Williamson would select the Technical Review Panel utilizing a minimum set of criteria developed by Stakeholders, Tribes and the DOE. The recommended panel members would be forwarded to the Tri-Parties for their review and confirmation.

Greg deBruler outlined his suggestion for the selection and function of the Technical Review Panel. Specifically, Mr. deBruler's suggestion differed from Thompson's in that the TRP would be selected by Stakeholders and Tribes. Mr. deBruler's interest was to assure study credibility by maximizing the level of input from stakeholders and Tribes. Both he and Mr. Gilmore felt that there was a high possibility the technical panel would not represent or understand the interests of certain stakeholders, particularly Native Tribes.

Mr. Thompson felt it was important for the selection process to be as unbiased as possible, and felt that an unbiased selection would best be accomplished through the representatives of the Washington and Oregon Water Resource Institutes. The mission of those institutes is to examine water quality and quantity issues in Washington and Oregon. Both Funk and Williamson have had experience in appointing peer review groups. The Committee felt that should the DOE go with deBruler's suggestion, the selection group could get too unwieldy, with ample opportunity for certain stakeholders to fall out of the process.

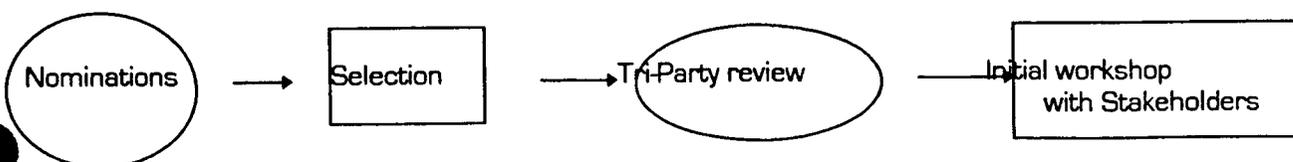
Mr. Thompson outlined the different roles of the various participants in the Columbia River Impact Study. Those include:

DOE PNL	Design and implement investigation Interpret Results Recommend Actions
EPA Ecology	Evaluate and approve investigation approach and results
Technical Review Panel	Determine if approach, documents, results and recommendations are <u>good science</u>
Indian Tribes	Interaction throughout process by consultation
HAB	Advise throughout process
Stakeholders	Advise throughout process

In an effort to strike a balance between the two proposals, Ralph Patt asked if Mr. deBruler's concerns would be met if the DOE committed to having one Tribal representative on the TRP. Mike Thompson agreed to move forward with this suggestion if a recommendation came from the Board. The ER Committee committed to bring this suggestion along with other suggestions about the role and function of the Technical Review Panel to the Board for their review and recommendation.

Under the recommendation the Tribes would select a representative to the panel. The ER Committee hoped that this measure would help build more credibility into the study. It was felt that Tribal views and perspectives on risk assessment would best be articulated by a tribal member.

DECISIONS:



ROLE: The Technical Review Panel will review the full scope of the Columbia River Impact Study, and provide recommendations to DOE and PNL.

CRITERIA: The panel will have consistent core membership, consisting of at least one representative appointed by the Tribes.

The technical reviewers will collectively have expertise as follows:

- Ecological Chemical and Radiological Environmental Toxicology
- Environmental Monitoring
- Exposure and Risk Methods/State of the Art Risk Assessment, Perception, Analysis, and Communication Skills
- Human Chemical and Radiological Environmental Toxicology
- River Ecology/Limnology
- River Hydrology/ Sedimentology
- Tribal and Cultural Resource Use
- Uncertainty/Sensitivity Analysis

Required (minimum) Qualifications for Reviewers

- Earned graduate degree in technical field
- Several years of applied, related experience in the technical field
- Independent without conflict of interest
- Acceptable to Tri-Parties

Desirable Qualifications

- Doctorate of Medicine, Doctorate of Philosophy (or Science) degree in a technical discipline
- Have a broad range of interdisciplinary related experience
- Possess good communication skills
- Have knowledge of applicable environmental laws and regulations
- Published in a peer-reviewed journal within the last ten years

TOPIC: RISK ASSESSMENT WORKSHOP

Naseem Rakha updated the group about discussions she has had with Arjun Makajani, and Dr. Jim Ruttenberg regarding their facilitating a risk assessment workshop for the Board. Dr. Ruttenberg indicated he and Mr. Makajani would be interested in designing a workshop with someone from DOE. The workshop would help the Board understand the various risk assessment methodologies and their impact on cleanup at Hanford.

The ER Committee envisions the full day workshop taking place the day prior to the HAB meeting. All Board members would be encouraged to attend. The evening (Wednesday night), would be an opportunity for the Board to hold a public forum and panel presentation on Risk Assessment. The following day, at the HAB meeting, the panel would give the Board a brief explanation of their various methods of risk assessment, and demonstrate how each individual would assess specific risks at Hanford, i.e. Carbon Tet, and Strontium 90. This will be an opportunity for the Board to hear very different points of view and approaches to risk assessment.

Ralph Patt spoke with Genevieve S. Roessler, a facilitator of the DOE's Risk Assessment Workshop, about she and Margrit von Braun working with Makajani, Ruttenberg, or others, to put together the type of workshop the ER Committee seeks. Roessler was very enthusiastic about putting together and being a part of this workshop and panel.

DECISION:

Rakha will contact Makajani and Ruttenberg and put together a budget for the program. The ER Committee will work with the Dollars and Sense Committee to fund the program. Patt will follow-up with the DOE Risk Assessment Workshop people.

TOPIC: CERE

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The CERE report is not due to come out until after the Board meeting in March. Ralph will try to get all ER Committee members a draft report.

DECISION:

Providing the report is issued in the beginning of March, the ER Committee will review and comment on the draft by the April HAB meeting. The Committee will discuss the logistics of this review on March 3, in Seattle.

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