Oregon Hanford Cleanup Board Meeting
Mission, Oregon
October 26 and 27, 2004

Present:

Board Members:
Barbara Jarvis, Chair
Paige Knight, Vice-Chair
Mary Lou Blazek Smith
Larry Clucas
Norma Jean Germond
Michael Grainey
Maxine Hines
Wayne Lei
Robert A. McFarlane
Armand Minthorn
Marc Rogelstad
David Van't Hof
Sen. David Nelson
Rep. Bob Jenson

Absent:
Eric Nisley
Doug Woodcock
Sen. Dukes
Sen. Ferrioli
Rep. Flores
Rep. March

Washington Department of Ecology:
Rick Bond
Laura Cusack
Suzanne Dahl

Oregon Department of Energy:
Dirk Dunning
Deanna Henry
Lynda Horst
Ken Niles
Tom Stoops

U. S. Environmental Protection Agency:
Craig Cameron

U.S. Department of Energy:
Steve Chalk
Howard Gnann
Kevin Leary
Erik Olds
Steve Wiegman

Fluor Hanford, Inc.:
Michele Gerber
Mark Gibson
Ron Jackson

CH2M Hill:
Moses Jaraysi
Bryan Kidder
John Kristofzski

Tribal representatives:
Tom Bailor, Confederated Tribes of the Umatilla Indian Reservation (CTUIR)
Judith Moses, CTUIR
Rosenda Shippentower, CTUIR
Steve Sohappy, CTUIR
Althea Wolf, CTUIR
Ron Suppah, Confederated Tribes of the Warm Springs Reservation

Members of the Public:
Amy Jo Brown, *East Oregonian*
Shelley Cimon
Olney Patt, Jr., *Columbia River Inter-Tribal Fish Commission*
George Pernsteiner, *Oregon University System*
Wil Phinney, *Confederated Umatilla Journal*

The board meeting was convened by chair Barbara Jarvis at 1 p m. on October 26, 2004, at the Tamastslikt Cultural Institute, Mission, Oregon.

Administrative

Ms. Jarvis opened the meeting on Tuesday with introductions around the room.

Ms. Jarvis introduced Mary Lou Blazek-Smith as the newest member of the Board, filling the vacancy left by Norm Dyer. Mr. Niles related Ms. Blazek-Smith's history with the Oregon Department of Energy.

The Board wished member Armand Minthorn a Happy Birthday, much to his surprise.

After some discussion about typographical and grammatical errors, Ms. Germond moved to accept the minutes from the May meeting with the changes discussed. Ms. Knight seconded the motion.

> Those voting in favor: Ms. Germond, Mr. Niles on behalf of Mr. Grainey, Ms. Hines, Ms. Jarvis, Ms. Knight, Dr. McFarlane, Mr. Rogelstad, Mr. Minthorn. Those abstaining: Ms. Blazek-Smith. Those voting against: none. Motion passed.

There was discussion about the statutory language in the by-laws relating to meeting attendance, as discussed at the May meeting. It was agreed that excused absences for citizen members will be announced and recorded in the minutes. Eric Nisley was excused as his office is short staffed.

Chronic absences will be reported separately to the Governor's office, if it becomes necessary to request a replacement for the absent Board member. Otherwise, absence notifications, which are required by statutes, will be reported to the Governor's office by way of the minutes of each meeting. Excused and unexcused absences will be recorded in the minutes and copies of the minutes will be sent to the Governor's office.

Mr. Rogelstad moved to adopt the revised by-laws. Ms. Germond seconded the motion.

> Those voting in favor: Ms. Germond, Mr. Niles on behalf of Mr. Grainey, Ms. Hines, Ms. Jarvis, Ms. Knight, Dr. McFarlane, Mr. Rogelstad, Ms. Blazek-Smith, Mr. Minthorn. Those abstaining: none. Those voting against: none. Motion passed.

Review of Actions from May meeting

The chair recognized Ms. Horst, who listed the three items that came out of the May meeting.

1. Letter to the editor of the Oregonian explaining the Board's concerns about the possible reclassification of high-level nuclear waste. The Oregonian ended up publishing an abbreviated version of the letter in the newspaper, but offered the full letter on its web site.
2. A joint letter with the CTUIR and Oregon Department of Energy expressing concerns about groundwater contamination and specifically the chromium plume, was sent to the U.S. Department of Energy (DOE) and its regulators.
3. A letter expressing some concerns about proposed changes in the Tri-Party Agreement was sent to DOE and the Washington Department of Ecology. The Board did receive a response, but it was non-responsive to the Board's concerns.

Mr. Minthorn moved that the next Board meeting be in Salem the last week of March 2005. After recognition that the Oregon Legislature will be in session and facilities in Salem may be limited as a result, Mr. Minthorn amended his motion to provide that the meeting be held in Hood River if there are no available facilities in Salem. Board members agreed to conduct the meeting on March 29 and 30, 2005. Ms. Germond seconded the amended motion.

> Those voting in favor: Ms. Germond, Mr. Niles on behalf of Mr. Grainey, Ms. Hines, Ms. Jarvis, Ms. Knight, Mr. Lei, Dr. McFarlane, Mr. Rogelstad, Ms. Blazek-Smith, Mr. Minthorn. Those abstaining: none. Those voting against: none. Motion passed.

As her second term on the Board is expiring, this is the last meeting for Chair Barbara Jarvis. A process to elect a new chair was briefly discussed, with the election to be held the following morning.

Public Involvement

Ms. Henry passed out a summary of public involvement and outreach activities that have reached 1,468 Oregonians since January. Board members were asked to let staff know when they make presentations to groups and report the number of people reached. ODOE's Hanford website has now had about 8,000 'hits.'

It was noted that at the last meeting Mr. Van't Hof suggested the board craft a communication strategy. Staff has not had sufficient time to devote to developing even an outline for a strategy since the last meeting. Discussion was had about various

avenues that could be pursued. Many ideas were suggested, including radio spots, videos, presentations to various schools and civic organizations, billboards along the Columbia River, targeted mailings, and college newsletters.

Staff will prepare a list of all existing public outreach and involvement materials and send to all board members, along with an example of each product. Board members were reminded that such outreach efforts are not intended to be conducted solely by staff, but also by board members. Members were encouraged to look for opportunities and share those with the group and staff.

It was decided that more time will be allotted at the next meeting to discussion of a communication strategy, and in the meantime, board members are encouraged to share any ideas with staff.

Litigation Updates

Mr. Niles provided the board with updates on various Oregon and Hanford-related litigation.

Natural Resource Damage Assessment
Oregon has been involved as a trustee for over eight years on the Hanford Natural Resource Council. Early this year, many Hanford Trustees proposed an expanded scope of work and budget to allow the Trustees to ramp up efforts to gather and analyze data to determine whether adequate cleanup has been done. After this and other efforts to spur DOE to move forward with injury assessment proved unsuccessful, Oregon and Washington filed a notice of intent to sue to compel DOE to assess natural resource injury at Hanford. The States also want to cause DOE to follow its own 1997 policy to integrate risk assessment with injury assessment to save time and money.

The legal action prompted a series of meetings between DOE and the states, and the states have agreed to hold off on filing suit so long as progress is made. A meeting is scheduled for early December involving Hanford Site Manager Keith Klein and senior representatives from the Trustee organizations.

Mr. Minthorn provided a copy of the Confederated Tribes of the Umatilla Indian Reservation's Notice of Intent to join Washington and Oregon in the lawsuit. Mr. Minthorn noted that DOE had yet to respond to the CTUIR filing of the notice in September and recommended that the three entities collaborate efforts to resolve concerns most effectively and maintain momentum.

Mr. Minthorn moved that the legislative members on the board write a letter to DOE in support of Oregon's actions on this issue. Dr. McFarlane seconded the motion. After discussion, a vote was taken on the motion.

> Board members voting in favor: Ms. Germond, Mr. Niles on behalf of Mr. Grainey, Ms. Hines, Ms. Jarvis, Ms. Knight, Mr. Lei, Dr. McFarlane, Mr.

Rogelstad, Ms. Blazek-Smith, and Mr. Minthorn. Members abstaining: none. Members voting against: Mr. Clucas. Motion passed.

Rep. Jensen said he would work with legislative counsel to develop such a letter.

Tank Waste Reclassification
In February 2002, the Natural Resources Defense Council, the Snake River Alliance, the Confederated Tribes and Bands of the Yakama Nation, and the Shoshone-Bannock Tribes filed a complaint in the federal district court of Idaho asking the court to review and set aside DOE's Order 435.1, "Radioactive Waste Management," as being inconsistent with the Nuclear Waste Policy Act. The States of Oregon, Washington, Idaho, and South Carolina later joined the lawsuit as friends of the court. The plaintiffs and the states were concerned that the Order gave DOE too much discretion in deciding how to reclassify high-level waste. At Hanford, this could potentially result in significant amounts of high-level tank waste being reclassified and left on site. In July 2003, Federal Judge Lynn Winmill overturned the DOE order. DOE appealed that ruling. The latest oral arguments on the case were heard in Seattle on October 5, 2004.

DOE also approached congressional leaders about amending the Nuclear Waste Policy Act and other laws to give them the authority that the judge says they do not have. DOE was successful earlier this month in getting language in a defense authorization bill that provides them this authority to reclassify waste at the Savannah River and Idaho sites with some state concurrence. Hanford is specifically exempted in this legislation.

Importation of Waste to Hanford
On July 16, 2004, the State of Washington announced its intent to expand existing litigation in an effort to stop further shipments of waste to Hanford. The original lawsuit, filed in 2003 and joined by four citizen groups, sought to prevent transuranic waste from coming to Hanford. A Federal District Court Judge granted a preliminary injunction in May 2003, preventing DOE from making additional transuranic waste shipments to Hanford until final resolution of the litigation.

The expanded litigation includes low-level and mixed low-level radioactive waste. The action followed release of the Record of Decision for the final Hanford Solid Waste Environmental Impact Statement. Washington contends that DOE has not conducted an adequate environmental analysis of the impacts of disposing of waste at Hanford. The state seeks an injunction halting further waste shipments to Hanford until DOE adequately addresses the environmental effects of shipping and storing more radioactive waste at Hanford.

By late July, DOE agreed to temporarily stop most waste shipments to Hanford until November 15 or until a legal ruling is issued, whichever occurs first. Oral arguments are scheduled for December 2004 in federal district court in Yakima, Washington.

Mr. Niles indicated that Oregon has been considering whether or not to join in this litigation.

Hanford Solid Waste EIS Update/Record of Decision

Mr. Dunning presented a summary of the Hanford Solid Waste Environmental Impact Statement. Oregon, DOE's regulators, and many other reviewers had serious concerns about the two draft versions of the EIS and the final EIS. .

In June 2004, DOE released its Record of Decision (ROD) on the Hanford Solid Waste EIS. DOE agreed to limit the amount of low-level and mixed low-level waste it would bring to Hanford from other sites to 82,000 cubic meters. That's one sixth the high-end amount analyzed in the EIS. Also included in the ROD was a commitment to immediately end the use of unlined disposal trenches at Hanford. A second ROD confirmed DOE's intent to ship about 100 barrels of transuranic waste from Battelle Columbus in Ohio to Hanford for storage. The Battelle waste can not come immediately to Hanford because of a federal court injunction. A third ROD dealt with the disposal of PCB contaminated transuranic waste.

Oregon and Washington continue to have concerns about the analysis conducted in the EIS. That concern is the basis for expanded litigation by Washington state, as was discussed earlier.

Mr. Dunning also discussed his recent site visit to oversee the exhumation of buried stored drums in Hanford's Central Plateau. Drum retrieval is based on existing records and there have been some surprises when records don't match observed contents. Each drum has to be observed and tested as part of the certification process to assure that only allowed wastes are sent for disposal at the Waste Isolation Pilot Plant (WIPP) in New Mexico. These wastes can not be permanently disposed at Hanford.

River Corridor Contract

Mr. Stoops provided an overview of the River Corridor Contract, a contract designed to clean up most of the land and buildings along the Columbia River corridor. When the contract was first let, Washington Federal submitted the low bid. The award was contested by both of the other bidders (Bechtel, and a consortium including Tetratech). DOE ultimately agreed there were problems with the letting of the contract and withdrew it. DOE is presently negotiating with Washington Federal to compensate them for their efforts to date.

DOE then revised and expanded the proposal to now include the 618-10 and 618-11 burial grounds and the K reactors and put it out for bid. It is expected that DOE will award the contract in January 2005.

Interagency Management Integration Team (IAMIT)

Shelley Cimon, formerly a member of the board, gave a presentation about work she is doing on behalf of ODOE with the Interagency Management Integration Team (IAMIT). The IAMIT group has changed over time to become a strong group of staff from the regulator agencies and DOE. The idea of the group was to develop a three dimensional picture of what the site and the site contamination looks like, what buildings are there, what the facilities look like, where the contamination sources and pathways are, expectations for land use, institutional controls and what it means to protect the public and the environment. This group used to be the Cleanup, Constraints and Challenges Team (C3T), and it meets about every two weeks.

Ms. Cimon explained the structure of the group and its decision-makers, and how the decisions are to be implemented. There are five groups:

- Groundwater
- Vision and End States
- Risk Assessment
- Waste Management
- Central Plateau Workgroup

The Groundwater Workgroup has been working toward fulfilling the groundwater goals of protecting the river from contaminated groundwater and to protect and remediate the groundwater. Mr. Stoops attends these meetings on behalf of Oregon.

The Vision and End States work group was formed to clearly define end states for the Hanford Site. It is now integrating with the groundwater group.

Ms. Cimon participates in the Waste Management workgroup. It is developing a decision tree for selecting an appropriate waste management strategy for each major waste stream at Hanford. Currently there is the Environmental Restoration Disposal Facility (ERDF) and soon there will be the Integrated Disposal Facility (IDF) for waste disposal.

The Central Plateau Workgroup is another one that Ms. Cimon has been involved in, which is working on area-based closures, now called 'zone' closures. Fluor Hanford has a group focused on defining this and overcoming constraints and the challenges to cleanup. There are about 4,000 waste sites that need to be addressed. This zone closure process is a way for the group to begin to get a handle on it. So far, there have been about 22 zones defined.

Ms. Cimon said one issue that has come forward is contracting incentives. The contractors have incentives in their contracts for certain work that is not a cleanup priority in the Tri-Party Agreement (TPA). She said there is a strong need to align the incentives with the TPA.

There was much discussion about the problems and challenges with cleanup in general, and with this group in particular. There is positive progress in working together, which should benefit everyone over time. There was a request that Ms. Cimon be invited to future meetings to update the board on progress of the IAMIT groups.

Public Comment

Tom Bailor from CTUIR provided comments to the Board.

Mr. Bailor discussed how Hanford issues are multi-generational and need to be elevated and presented to the public in a broad way, such as the billboard idea discussed earlier. He also talked about the B-BX-BY groundwater issue along with groundwater flow through the Gable Gap as issues that CTUIR is following.

Following public comment, the meeting was adjourned for the day at about 5:15 p.m.

Wednesday, October 27, 2004

Chair Jarvis called the meeting to order at 7:45 a.m. on October 27, 2004. Introductions were had around the room.

Governor Ted Kulongoski stopped in to visit with the Board briefly. Ms. Jarvis introduced the Governor and noted that it had been fifteen years since a Governor visited the Board during its meeting.

Governor Kulongoski thanked the board for the difficult job it does and said that Oregon is a better place because of the work done by the board. He reminded board members that Hanford cleanup is a long-term project and the board must remain diligent in its efforts to see progress.

He talked about the change in the Board's name from the Waste Board to the Cleanup Board and how pleased he is that we are actually seeing movement in the cleanup of the site. The Governor praised Ms. Jarvis for all her time and leadership on the board and expressed his appreciation that she was willing to serve on the Board as a resident of Ashland. Ms. Jarvis is the first public board member who does not come from either the Columbia River area or the transport corridor in Eastern Oregon.

Governor Kulongoski also thanked Ms. Germond for her more than 15 years on the board and its predecessor board, and for all of her volunteer work benefiting the State of Oregon and its citizens.

Following his presentation, the Governor took some questions from board members and again thanked the board for the work it does.

Groundwater Update

Mr. Stoops updated the board on groundwater restoration actions being conducted by DOE in several locations across the Hanford Site. The actions taken by DOE are performed as interim actions meant to limit the spread of contamination while DOE collects adequate information to propose final actions.

Chromium Plume
There are two pump and treat systems treating the chromium plumes. One is fairly conventional. The other uses an unconventional resin ODOE staff recommended to DOE a year ago.

DOE also uses an In-Situ Redox manipulation barrier. By injecting a reduced sulfur compound into the soil, it creates a chemical barrier that converts toxic hexavalent chromium in the groundwater to a less toxic trivalent chromium. Lab scale testing worked fine, but the actual installed operation began failing within a year. DOE has brought in an expert panel to determine what could be done to get the barrier to work the way it should. Staff expects to be able to report the outcome of that review in March.

One of the problems with the chromium in this area is that DOE doesn't know precisely where the source is. It is still necessary to do an investigation and feasibility study.

N-Springs
DOE is taking the position that pump and treat of strontium near N Reactor is ineffective and they would like to come up with something else. They can only remove a few tenths of a curie of strontium 90 a year. Mr. Stoops pointed out that this small amount of strontium could contaminate millions of gallons of water.

DOE is investigating phytoremediation, in which hybrid willows will be planted along the shoreline so that the roots will draw up strontium from the contaminated groundwater and vadose zone. Ecology is a big proponent of this approach. ODOE has asked a lot of questions about how DOE will manage leaf litter, insects and other materials. Pacific Northwest National Laboratory (PNNL) is doing a study. In Idaho they observed that the strontium mostly stayed in the roots.

The other study going on is a test using apatite as a mineral to remove strontium.

Carbon tetrachloride
Subsurface characterization adjacent to the Z-9 crib near the Plutonium Finishing Plant is underway to gain a better understanding of the carbon tetrachloride plume. The work has determined that dense non-aqueous phase liquids (DNAPLs) exist in the vadose zone above a finer grained layer. Additional characterization data will be obtained from a slant well being constructed beneath the crib.

Other groundwater issues
An emerging issue involves the B-BX-BY tank farms and trying to understand in which direction the contaminant plumes are moving beneath these tanks.

There is a technical meeting scheduled a couple of weeks after this meeting concerning some of these groundwater issues. It was agreed that staff would send board members a summary of the information presented at the meeting.

Ms. Knight made a motion for the Board to write a letter encouraging the Tri Parties to continue focusing more effort on comprehensive groundwater remediation and to aggressively seek new technologies to solve ongoing contaminant concerns. Ms. Hines and Mr. Clucas both seconded the motion.

> After more discussion, a vote was taken. Those voting in favor of the letter: Mr. Clucas, Ms. Germond, Mr. Niles on behalf of Mr. Grainey, Ms. Hines, Ms. Jarvis, Ms. Knight, Mr. Lei, Dr. McFarlane, Mr. Rogelstad, Ms. Blazek-Smith. Those abstaining: none. Those opposed: none. Motion passed.

Spent Fuel Project and Sludge Update

Staff reported that the K-Basins spent fuel project was completed this year. On October 22, 2004, DOE removed all fuel and scrap from the K-Basins. Now that the fuel issue has been addressed, DOE must resolve the sludge (sand, rust, etc.) problem remaining at the bottom of the basins. DOE decided to build large containers in the basins; vacuum the sludge into the containers; and then to later decide where and how to process the sludge. Tentatively, DOE has decided to place the sludge into smaller containers and transport it to T-Plant for processing. DOE may change this to process the sludge in a building in the K-area.

In conjunction with these changes, DOE, the U.S. Environmental Protection Agency (EPA), and Ecology negotiated a new set of Tri-Party Agreement milestones. Oregon staff reviewed and commented on the milestones. Oregon staff is generally supportive and EPA did incorporate many of the changes suggested. Staff reported that Oregon remains concerned that:

1) The plans for processing the sludge are not defined.
2) The facilities to be used are not certain.
3) The plans call for the waste to be shipped to WIPP as transuranic waste, yet the state of New Mexico has not agreed to that designation.

Staff reported that the plan is to remove as much of the sludge as possible, then grout the basin (shielding), cut up the basin into blocks, and take it to the Environmental Restoration Disposal Facility (ERDF) for disposal.

Staff is concerned that DOE does not know what the final disposition is for this sludge. New Mexico has dug their heels in. For DOE to assume that this sludge will go to WIPP

or Yucca Mountain is a huge assumption. ODOE is pushing DOE to answer these questions.

Concerns were expressed about how DOE will address the bottom of the basin since the radioactivity levels are so high. Staff reported that the concrete is very course and the radioactivity has not penetrated through the bottom. However, the concrete on the bottom of the basin is contaminated from leakage into the soil. Staff reported that DOE has already dealt with similar problems with B Reactor and other facilities. They are confident that K-basins can be dealt with the same way.

Risked-Based End States

Mr. Niles reported that DOE complied with the DOE Headquarters' order to develop a risk-based end states plan for Hanford. The first draft submitted represented a plan that was consistent with existing cleanup plans, rather than identifying opportunities to change existing plans, as Headquarters had directed. Therefore, Headquarters rejected the initial draft. DOE at Richland then revised their plan as a second draft, without regulator or stakeholder input. The revised plan sparked considerable concern.

In response, DOE held two workshops to seek stakeholder input on the proposed changes, or "variances," as they are called. Mr. Niles said that DOE did a good job of incorporating stakeholder input while trying to comply with the directives from Headquarters.

On October 6-7, 2004, DOE conducted a national workshop on Risk-Based End States. Staff reported that the meeting appeared productive and yet it was unclear as to where they were at the end of the day and a half meeting. There was extremely good facilitation and DOE admitted to making a mistake by not consulting with its regulators and stakeholders earlier. But, by and large, few participants said 'stop the process.' Oregon commented at the meeting and followed up with a letter stating that the Risk-Based End States process was very badly received by Hanford stakeholders and it is unlikely this process could be resurrected at Hanford. A copy of the letter sent by ODOE was passed out to Board members at the meeting.

Several workshop participants pointed out that every DOE site is different and DOE was wrong to attempt a "one size fits all" process. Based on comments made by DOE officials at the workshop, it appears they recognize that sites nearing closure (such as Mound in Ohio and Rocky Flats in Colorado) are so far along in their cleanup that significant changes would hinder – rather than help – closure. However, for sites like Hanford where cleanup will take years, Headquarters is expecting changes to be made.

Headquarters said they would consider all comments received and determine how to proceed.

There was discussion about the status of a national dialogue on associated issues – particularly in terms of waste disposition plans across the DOE complex. Staff reported

that this process was initially called a National Equity Dialogue, but ultimately DOE did not want to spend a great deal of money or effort to have a national dialogue on waste disposition. However, at the national workshop on Risk-Based End States, participants discussed during breakout sessions the need for a national dialogue. The National Governor's Association offered to be a convener for this national dialogue to discuss waste disposition (where is this waste going), groundwater, and pre-1970 buried waste.

Election of Board Chair and Vice-Chair

Ms. Jarvis asked for nominations for chair. Ms. Germond nominated Ms. Knight for Chair; Mr. Grainey seconded the nomination. Ms. Blazek-Smith nominated Mr. Lei for Chair; Mr. Grainey seconded. Board members were asked to write down their votes and the votes were then counted. Ms. Knight was elected Chair.

Nominations were then called for Vice-Chair. Ms. Blazek-Smith nominated Mr. Lei for Vice-Chair; Mr. Grainey seconded the nomination. Ms. Germond nominated Mr. Clucas for Vice-Chair, and Mr. Grainey seconded. Board members again wrote down their votes and the votes were counted. Mr. Clucas was elected Vice-Chair.

> Board members who voted on both nominations were: Mr. Clucas, Ms. Germond, Mr. Grainey, Ms. Hines, Ms. Jarvis, Ms. Knight, Mr. Lei, Dr. McFarlane, Mr. Rogelstad, and Ms. Blazek-Smith.

Recognition of Barbara Jarvis as Outgoing Chair.

Mr. Niles commented on Ms. Jarvis' positive impact on the board, including giving the board a broader statewide interest and providing her perspectives as an attorney and judge. He thanked her for her service.

Mr. Grainey also provided remarks on Ms. Jarvis' long tenure with the board and presented to her a recognition award from staff.

Ms. Jarvis provided some personal remarks and observations on the opportunities she has had to represent the board to southern Oregon and specifically the communities there. She also thanked her fellow board members, staff, DOE, contractors and the regulators who have provided input.

U-Plant Area Strategy

Mr. Dunning presented the general scope of DOE's plans and challenges to deal with Hanford's five large canyon facilities, and then introduced Kevin Leary of DOE's Richland office (DOE-RL). Mr. Leary presented a summary of the strategy to clean up and close the U-Plant and the surrounding waste sites. It is the first canyon facility that will be dealt with. The proposed plan and feasibility study is presently under review by the Tri-Parties. Mr. Leary introduced support and regulatory staff who accompanied him

to the meeting: Rick Bond (Washington Department of Ecology), Craig Cameron (EPA Region 10) and Ron Jackson and Mark Gibson (Fluor).

The project is a prototype for area closure, regulatory integration and capping of waste sites on the Central Plateau. The scope includes ancillary structures, U-plant pipelines, surrounding waste sites and the canyon building itself. DOE intends to have a strong "lessons learned" program so mistakes are not repeated and the knowledge gained can be applied on future projects.

There are 33 waste sites within an area of about one half square mile. Mr. Leary explained the proposed plans for remediation of the sites:

Four are designated "No action" sites;
Five sites will be maintained with surface barriers;
Nine sites will be left to decay in place while maintaining the existing soil covers;
15 sites will have waste retrieved, treated, and disposed of.

Mr. Leary then discussed the nine Comprehensive Environmental Restoration Compensation and Liability Act (CERCLA) decision criteria and the eight years it has taken to get to this decision point. As capping is a crucial part of this proposed work, DOE is planning a workshop to discuss caps and barriers in the spring of 2005.

DOE anticipates approval from EPA and Ecology in November, with public review in December 2004 for at least thirty days, likely to be 60 days due to the holidays, with the Record of Decision coming out sometime in May 2005. The initial goal will be to address high-risk waste sites.

For the ancillary structures, the Engineering Evaluation/Cost Analysis (EE/CA) was presented and reviewed in September 2004, with the action memorandum expected in November. The pipeline issue will be complex due to the miles of pipes on site. It is estimated there 800 miles of underground pipes on the central plateau. DOE plans to submit the EE/CA for the pipelines in early 2005.

DOE is considering a limited landfill for deposition of construction debris from this project, using an old tumbleweed burning pit. Only clean material would be allowed, such as clean construction debris.

Integrated Disposal Facility (IDF)

John Kristofzski of CH2M Hill provided an overview of the IDF. The IDF will be owned and co-operated by DOE and its Tank Farm Contractor, CH2M Hill Hanford Group. The facility was initially conceived in December 1999 as a remote handled disposal landfill for immobilized low activity tank waste. Since then, an integrated facility was identified as the preferred disposal alternative through studies and workshops. Now that Hanford is committed to stopping disposal of low-level wastes in unlined trenches, the IDF facility is

appropriate. In addition, the limited amount of existing disposal capacity for mixed low level waste is currently forecast to be full in early 2007.

The proposed facility concept includes:

- Double-lined landfill, including leachate collection and removal, with secondary containment and leak detection system.

- In addition to the regulatory-required barriers to protect the environment, other enhancements are included in the IDF design. They include:

  - A Geosynthetic Clay Liner (GCL) layer has been added to the required primary liner to provide a composite barrier throughout the landfill cell floor.
  - A second GCL layer has been added to the required secondary liner to enhance the effectiveness of the composite barrier under the leak detection sump.
  - A third High Density Polyethylene geomembrane liner has been added beneath the liquid collection area to provide a secondary leak detection system.

All leachate will be monitored, sampled, characterized, and transported to other treatment, storage and disposal facilities for final disposition.

The proposed IDF is a huge facility and will be built in three phases.

- Phase 1 will be approximately 442 meters wide, 158 meters long, up to 15 meters deep, with length increasing up to 555 meters at full construction. Initial excavation of the trench has already begun.

- Phase 1 will provide capacity for approximately 165,000 cubic meters, with capacity increasing up to 900,000 cubic meters at full construction.

- Cell 1 will be for disposal of mixed low-level waste containing Resource Conservation Recovery Act (RCRA) regulated components, including immobilized low activity waste.

- Cell 2 will be for disposal of low-level waste with no RCRA regulated components.

The proposed operations of IDF will be similar to disposal activities currently performed on site. The waste to be disposed of will be certified by the generator and verified by the operator. Waste will also be segregated and staged until wastes are accepted for disposal.

Mr. Van't Hof and Mr. Grainey asked for clarification as to whether the intent was to allow off-site waste to be disposed at IDF, and whether Hanford's waste would get preference over disposal of waste from off-site. Mr. Kristofzski explained that the IDF is currently designated for Hanford waste but that DOE's ultimate plan is to accept outside waste. Suzanne Dahl of Ecology said Ecology will draft criteria to at least initially restrict outside waste. Hanford waste will get priority. Ecology and DOE are working on

resolving some issues related to Washington's State Environmental Protection Act, and once resolved, Ecology will draft a permit for cells 1 and 2 of the facility. Ms. Dahl said Oregon would be welcome to review the draft permit.

The proposed IDF Project path forward includes:

2003 – Submitted Part B Permit Application and initiated detailed design.
2004 – Issued final Hanford Solid Waste EIS and performed detail design.
2005 – Issue Part B Permit and perform construction.
2006 – Perform testing and initiate disposal facility operations.

Luncheon Presentation

Dr. Michele Gerber presented to the board information and a video related to the history of the Hanford site. The video was recently completed and focused on the construction and initial plutonium production during World War II. She is well-versed in Hanford history and has authored thousands of pages of documents and articles on Hanford. Her book, *On the Homefront: The Cold War Legacy of the Hanford Nuclear Site,* is a comprehensive history of America's first plutonium production complex. Dr. Gerber referred folks to a web site that contains more information about Hanford and related sites, www.atomicheritage.org.

Tank Issues

Howard Gnann of DOE provided an overview of the Office of River Protection (ORP) and tank issues. He said the cleanup goal is to send 97 per cent of the radioactivity in the tanks to Yucca Mountain, however, that is only five per cent of the volume of the tank waste. If 99 per cent of the tank waste is removed, approximately 0.5 million gallons of waste will remain, containing about two million curies of radioactivity.

Mr. Gnann provided an overview of the waste treatment plant (WTP) construction progress. The WTP project includes four primary facilities – a pre-treatment plant; a high-level waste vitrification facility; a low-activity waste vitrification facility; and a laboratory. These facilities will be used to immobilize much of Hanford's tank waste. The WTP project is about 38 per cent complete, with about 70 per cent of the design completed and 31 per cent of construction done.

Mr. Gnann said they have made considerable progress in resolving technology challenges that had been discussed with the board in previous meetings.

He also provided an update on the demonstration of bulk vitrification, which may be used to immobilize a majority of the tank waste by volume. Of key importance is understanding where and how the contaminants distribute themselves throughout the melt. Testing is underway to help answer these and other questions.

Another issue DOE has been working on the last year is a transuranic (TRU) waste packaging and drying facility. This facility would take what DOE believes is TRU waste out of a maximum of 20 tanks. If all regulators agree, this waste could go to the Waste Isolation Pilot Plant in New Mexico, but final decisions have not been made. New Mexico has been resisting this proposal.

There was much discussion about tank closure alternatives. The Tanks Closure Environmental Impact Statement (Tanks EIS) will look at a variety of closure scenarios, including modified landfill closure and clean closure of tanks. At this point, neither Ecology nor DOE has decided on a particular type of closure.

It is expected that the Tanks EIS will be released for public comment in late spring or early summer 2005.

Ms. Dahl said one concern that Ecology has is over DOE's plans to treat some waste without it going through the pre-treatment facility. DOE believes that bypassing pretreatment for some waste is a viable option and complies with the law.

At the conclusion of Mr. Gnann's presentation, Ms. Jarvis then turned the meeting over to the new chair Ms. Knight. Ms. Knight called for public comment. There was none.

There was discussion about what to do with the money collected over time for the use of acronyms at the meetings. It was decided that the money would be donated to a collection in the lobby of the meeting facility to help bring a local soldier home on leave from Iraq.

Meeting adjourned.