

Oregon Hanford Cleanup Board Meeting
Hood River, Oregon
August 2 and 3, 2005

Board Members:

Present:

Paige Knight, Chair
Barry Beyeler
Norma Jean Germond
Maxine Hines
Wayne Lei
Robert McFarlane
Armand Minthorn
Doug Woodcock
Lee Ann Donaldson,
Legislative Assistant for
Sen. Rick Metsger

Absent:

Mary Lou Blazek-Smith
Larry Clucas
Eric Nisley
Marc Rogelstad
Dave Van't Hof
Sen. Margaret Carter
Sen. Dave Nelson
Rep. Linda Flores
Rep. Bob Jenson
Rep. Steve March

Oregon Department of Energy:

Dirk Dunning
Sisily Fleming
Deanna Henry
Lynda Horst
Susan Coburn Hughs
Ken Niles
Paul Shaffer
Tom Stoops

U.S. Department of Energy:

Kim Ballinger
Karen Lutz
Erik Olds
Roy Schepens
Michael Thompson
Joe Voice

Washington Department of Ecology:

Laura Cusack
Suzanne Dahl-Crumpler

U.S. Environmental Protection Agency:

Alicia Boyd
Nick Ceto

Bechtel National, Inc.:

Suzanne Heaston

CH2M Hill:

Moses Jaraysi
John Kristofzski

Fluor Hanford, Inc.:

Barbara Howard
Bruce Ford

Confederated Tribes of the Umatilla

Indian Reservation:

Stuart Harris
Ted Repasky

Luncheon Speaker:

Greg Hughes
U.S. Fish and Wildlife Service

TUESDAY, AUGUST 2, 2005

Chair Paige Knight called the meeting to order at about 1 p.m. on Tuesday. Introductions were had around the room. As there was not a quorum yet present, approval of the minutes from the last meeting was deferred.

Action items from the last meeting were reviewed and there was brief discussion about the Capping Paper that resulted from that meeting. Additional copies will be ordered. It was suggested that folks wanting copies for distribution contact Ms. Horst to let her know how many copies are needed.

Following the afternoon break, there was a quorum available. After a brief discussion about the minutes of the last meeting, Ms. Germond moved to accept the minutes; Ms. Hines seconded the motion.

Those voting in favor: Ms. Germond, Ms. Hines, Ms. Knight, Mr. Lei, Dr. McFarlane, Mr. Minthorn, Mr. Woodcock, Mr. Niles for Mr. Grainey. Those voting against: none. Motion carried.

Groundwater Issues

Michael Thompson, the manager of the Groundwater Group at the U.S. Department of Energy, Richland Office (DOE-RL), provided an overview of the many groundwater issues and challenges at the Hanford site, including some history of operations that led to groundwater contamination. There are about 90 square miles of contaminated groundwater. There are many areas of contamination, and it was not possible to get through all of the issues in this meeting, so the presentation focused on Hanford's 100 and 300 areas. Hanford's Central Plateau will be addressed at the next meeting.

Mr. Thompson detailed "completed" actions. Unpermitted discharges of liquid wastes to the soil have been stopped. Pump and treat systems have been in place since 1994. Several have been very successful at removing contaminants, including uranium, technetium 99, nitrates and carbon tetrachloride.

He explained that DOE considers certain actions essential for groundwater protection:

- Control high-risk sources of contamination
This consists of achieving groundwater protection objectives through coordinated interim actions and source control, including removing high-priority chromium sites and removing strontium 90 from the N area
- Eliminate artificial and natural recharge conditions
Reduce the potential for wells or man-caused water discharges to carry contaminants to the water table, which includes well decommissioning and eliminating leaking water lines

- Implement final, effective groundwater remedies
The goal is to restore groundwater to its intended beneficial uses to protect human health, the environment and the Columbia River
- Shrink the footprint of the contaminated areas
There are a variety of ongoing projects that, if successful, will ultimately reduce the amount of contaminated areas at the site
- Integrate Hanford site monitoring needs
Groundwater monitoring will be performed to assure compliance and to verify that the units are properly designed and operated to prevent impact to groundwater

Mr. Thompson said DOE probably will not try and clean up all of the existing groundwater plumes at Hanford. He said it just doesn't make sense to go after the tritium plume, which poses tremendous technological challenges and has a relatively short half-life of 14-years. In contrast, he said there will be aggressive action taken against the uranium plume in the 300 area, since a previously proposed remedy of natural attenuation was unsuccessful.

Carbon tetrachloride will be the most difficult challenge from a purely engineering standpoint. The deeper they drill, the more carbon tetrachloride they find.

There are 750 disposal areas in the 200 area alone, 1,200 for the entire site. Continued spread of contaminants is to be expected in some parts of the site until addressed.

Bruce Ford of Fluor Hanford, Inc. was the founder of the integrated groundwater group and presented additional information. The pump and treat systems have been working well in some areas. For example, chromium levels have diminished since the 1997 inception of the pump and treat system.

There is extensive chromium contamination in the 100-K area. There are also carbon 14 and tritium contaminants. These came from gas condensates that were injected into the subsurface. A mile-long trench, which is the focus of one of the pump and treat systems, is thought to be the source of much of the contamination. Historically, the groundwater has mounded underneath the trench and created seeps along the Columbia River. Much of the land between the river and the trench is a sensitive cultural area. DOE and their contractors are working with the tribes to identify and protect those resources.

Monitoring has indicated that the groundwater plume was moving northeast and was beginning to overrun the N-area plume. Due to the plume movement, DOE, along with EPA, decided to look at calcium polysulfide as a method to convert the chromium 6 to a less-mobile form, chromium 3. This is referred to as the KR4 treatability study.

The KR-4 treatability study is composed of five wells. Water is extracted from the wells, treated with calcium polysulfide, then re-injected through four injection wells. Planners thought reduction would take about four weeks, but results were seen in about four days.

Operations have only been on-going for about three weeks, but are encountering carbonate precipitation on the pumps and pipes. The precipitation of carbonate will tend to clog the system and prematurely wear out all the various components. Also of concern is rapid transport between the injection point and the monitoring point. It indicates that the system is not behaving as projected and that any projections based on that expected behavior may need to be revised.

Located near the N Reactor in the 100 area, the N-springs are a concern because of strontium in the soil and the groundwater. During operations, three thousand curies of strontium were released and about 1,200 curies have decayed. A pump and treat system was built and has been operated since 1995. DOE estimates that about two per cent of the remaining inventory is extracted each year.

DOE wants to stop the pump and treat system but acknowledges that some other technology must be found to deal with the strontium that is mobile. Much of the strontium is not thought to be mobile and will decay in 300 years.

DOE is looking at using apatite (the mineral that makes up teeth and bones) to construct a barrier to trap the strontium. Current plans are considering a citrate-based apatite solution. The citrate prevents the apatite from immediately precipitating.

The 300 Area is the closest area to Richland, Washington. This area was used for research activities and to manufacture fuel for the reactors. About 60 tons of uranium was put into the soils of the 300 Area in various aqueous solutions. The resulting plumes are significant.

An interim record of decision in July of 1996 selected natural attenuation as the remedial option. However, it is not working. The plume has not significantly diminished or changed shape since 1996, so DOE is planning aggressive strategies to address it.

The conceptual model (used to select attenuation) was based on liquid waste released to the soils and then into the aquifer. As the river stage changes, the concentration changes due to uranium in the vadose zone. Interestingly, there is no response to precipitation or snowmelt, but in one instance uranium concentration increased due to the application of dust suppression water. The highest concentrations of uranium are found in irrigation returns on the other side of the river, and are found in grass, bugs, and other biota in the riparian zone.

A focused feasibility study and proposed plan will be developed and presented to the public in the future following additional investigations and exploration. Any plan must consider scenarios that include dams in place, dams removed, and additional dams.

There was discussion about DOE communicating with the dam operators when considering options. DOE did not believe that its plans would have much of an effect on dam operations, but Mr. Minthorn pointed out that dam operations affect not only

distribution of contaminants but health of the salmon redds. The board encouraged DOE to begin talking with the operators sooner than later.

There was some discussion about various areas on site that are of concern; including the central plateau. There was not enough time to get through all the information at this meeting, so it was decided that Mr. Thompson would return for further discussions at future meetings.

Groundwater remediation is a very long process and will require continued support to see progress. DOE wants to focus on actions that could be resolved in the short term in order to show success.

As there was no public comment offered, the meeting was adjourned at 5:30 p.m.

WEDNESDAY, AUGUST 3, 2005

The chair convened the meeting at 8:30 a.m. Introductions were made around the room, and Ms. Knight introduced Barry Beyeler, a new board member from Boardman. Mr. Beyeler works with the City of Boardman Water Department.

Groundwater (continued)

Following the previous day's discussion on groundwater, the board provided comments to Mr. Thompson. Mr. Niles said work such as well decommissioning and waterline upgrades appear to always be on the chopping block for funding whenever there are budget cuts, which causes the board some concern.

Mr. Thompson suggested the board could approach the regulators with the suggestion to establish some Tri-Party Agreement milestones for some of these tasks so it won't be as easy to cut them from the budget. Thompson said as DOE writes their Records of Decision they could possibly write these tasks into the document.

In response to questions, Mr. Thompson said there is a huge effort underway to review the environmental impact statements in an integrated approach across the Hanford Site and within his office.

It is acknowledged that there will be waste left behind at Hanford when cleanup is complete. Mr. Thompson said DOE is working to develop a long-term stewardship group to ensure that the cleanup decisions made and actions taken consider protection of the environment, public health and safety.

There was some discussion about ways the board could address institutional controls and long-term stewardship issues. These discussions will be continued at future meetings.

Waste Isolation Pilot Plant (WIPP) Tour

Mr. Dunning and Ms. Knight provided details about their tour of the Waste Isolation Pilot Plant (WIPP) in Carlsbad, New Mexico the week before the meeting. Ms. Knight said she was impressed with the structure of the salt caves and the professionalism of the facility workers. She said the trip convinced her that Hanford transuranic (TRU) waste can be disposed of in an environmentally safe manner.

Mr. Niles explained that Oregon has sent Cleanup board members, emergency responders and law enforcement located along the transport corridor to WIPP over the past few years for a number of reasons. WIPP is critical to Hanford cleanup as most of the Hanford TRU waste is supposed to go to WIPP for permanent disposal. Since the facility opened, Hanford has sent 200 shipments to WIPP and the shipments will continue to increase as Hanford cleanup continues. Hanford shipments travel over 200 miles of Oregon highways so training emergency responders and law enforcement along the I-84 transportation corridor is critical.

DOE Budget

Staff reported that since the last board meeting, there have been many attempts by stakeholders and legislators to restore budget cuts in DOE's environmental cleanup program proposed by the Bush Administration for fiscal year 2006. All 14 congressional delegates from Washington and Oregon have asked Appropriations Committee leadership to restore Hanford's funding. It appears these efforts have met with some success. The House budget has restored \$200 million and the Senate appropriations subcommittee has restored \$34 million. The Senate version must pass through the full committee and then the full Senate. If the amounts requested by the House and Senate continue to differ, the recommendations must go to conference committee for reconciliation. Staff will continue to update the board as new information becomes available.

Sludge Removal from K-Basins

Staff reported that Hanford workers continue to have trouble meeting deadlines in dealing with radioactive sludge in Hanford's K-basins. In late April, the U.S. Environmental Protection Agency (EPA) fined DOE \$75,000 for missing a deadline to move the sludge from the K-East basin into underwater containers located in the K-West basin. The deadline was March 1 and EPA said the work was barely half done at the time the fine was issued.

To date, DOE has removed 80 per cent of the sludge into containers in the K-West basin. They have yet to begin sludge removal in the K-West basin. Fluor is working on a new plan due October 1 on how best to proceed with the project. This should include plans for how to deal with the radioactive concrete left in the basins.

Since the last of more than 2,000 tons of corroding spent nuclear fuel was removed from the K-basins last year, work has focused on removing the radioactive sludge left behind.

DOE plans to consolidate the sludge from both basins into the K-West basin, then fill the K-East basin with grout. Contaminated water in the basin would be removed and the grout could be cut into blocks and buried. The same thing would be done at the K West basin after the sludge is removed. The sludge will be treated in Hanford's T-Plant.

Hanford Tank Waste and Waste Treatment Plant Updates

Staff reported that construction on the Waste Treatment Plant (WTP) has slowed significantly, while DOE addresses concerns with rising costs, slipping schedules, and the facilities' ability to withstand a strong earthquake. The WTP, along with a facility using a different treatment process, is intended to immobilize Hanford's 53 million gallons of high-level radioactive waste currently stored in 177 underground tanks.

Suzanne Dahl-Crumpler with Washington Department of Ecology (Ecology) explained that Ecology wants the plant built, but it must be safe and effective. She expressed concern about slippage in the schedule and that rework of the schedule could be an opportunity to have major delays. Laura Cusack of Ecology noted concern about an Energy Secretary memo discussing a "shutdown." Ecology is expecting to see a plan that includes lists of things that can move forward as the seismic needs are being resolved.

Energy Secretary Samuel Bodman has ordered a review to look at cost and schedule estimates that many DOE officials believe are unrealistic. Meanwhile, a Congressional subcommittee has asked the Government Accounting Office to review the project and DOE has also asked the U.S. Army Corps of Engineers to review the cost and schedule of the plant construction.

Construction on the WTP began three years ago. To meet milestones in the Tri-Party Agreement (TPA), which require the plant to be operational by 2011, construction of the multi-billion dollar treatment facility began well before the design was completed. Overall construction is currently about 36 per cent complete. The design is about 76 per cent complete. Secretary Bodman ordered construction activities halted at the pre-treatment facility and the high-level vitrification facility until design work is complete. More than 1,000 construction workers have been laid off in recent weeks.

Roy Schepens, Manager of DOE's Office of River Protection (ORP), provided the board with an overview of ORP's program mission and its commitment to building a robust waste treatment plant at Hanford. ORP intends to manage the WTP and tank farms as an integrated system. ORP is committed to meeting or exceeding TPA requirements and continue an open and honest dialogue with stakeholders and the public.

Mr. Schepens explained that the WTP plant is very different from its 2000 design. The modified design is larger and has a much higher capacity, and will process waste more quickly. The approach changed in 2002-03 to add a second high-level waste (HLW) melter and increase capacity of the pre-treatment process. The pre-treatment building was also redesigned.

He noted that a change made to reduce the wall thickness of the HLW canisters will increase their capacity and reduce the numbers of containers needed. The canisters will hold about four per cent more waste, which will reduce the number of canisters needed by about 500. The canister wall thickness is being reduced from 3/8 inch to 1/8 inch steel. The filled canisters will be stored at Hanford until they can be shipped to a permanent disposal location.

Seismic concerns on the WTP buildings affect only the pre-treatment and HLW vitrification facilities. The other structures are mostly unaffected and construction is going ahead. It will not likely be necessary to modify the work that has already been done – the foundations for both facilities are tremendously robust. Modifications will be necessary to tanks, piping and supports.

Mr. Schepens said DOE is committed to finishing the WTP plant even in light of the anticipated increases in cost and schedule delays. The contractor, Bechtel National, is working on revisions to costs and schedules, which should be presented to DOE this fall.

Mr. Niles requested that the information be made publicly available soon after it is presented to DOE.

John Kristofzski with CH2M Hill Hanford Group, Inc. reported on the tank waste retrieval progress. There are simultaneous processes occurring to remove waste from the tanks. One of those involves using a small robot to ‘push’ the waste near vacuum hoses. Other methods include using jets of water or acids.

The board wondered how CH2M Hill can ensure they do not puncture an aging tank wall as they retrieve the wastes. Ms. Dahl-Crumpler reported that CH2M Hill submitted a retrieval report to Ecology that provided information on the characterization of the waste inside the tanks. Ecology is confident they have enough information on the waste inside the tanks and the condition of these tanks to avoid puncturing any tank during retrieval.

DOE handles known or suspected leaking tanks differently than the rest by using less water, to avoid “creating a head to push water out.” Moses Jaraysi of CH2M Hill explained that later this year there will be a system on line that can detect smaller volumes of water (1,500 vs. 5,000 gallons) that leak. DOE measures the water in and out, in addition to leak detection, during cleanout.

Staff asked when and how DOE tracks the volume of waste as water is added to decide when to stop treatment. Water and radionuclides are monitored to make the determination, with the goal of going until retrieval of radionuclides effectively stops. Most of the waste is cesium and strontium and their daughter products, and each is tracked as waste is removed.

DOE is developing a plan to address the final handling of the tanks once they are cleaned out. The intent, “as a concept,” is to leave the tanks in place, fill them with grout and then cap the surface, in an effort to stop an influx of water to the tanks. In developing the

tank closure environmental impact statement (EIS), due to be released in summer of 2006, DOE is looking at a number of approaches, including grouting and removing the tanks from the ground. An engineering analysis of tank removal is underway.

Mr. Jaraysi provided a demonstration of “QuestViewer,” software that has been developed to look at not just tanks, but also wells, pipes, diversion boxes, and spills, so they can look at a tank farm as an integrated unit.

Bulk Vitrification

Mr. Kristofzski reported on the status of the Supplemental Treatment Project, known as bulk vitrification (vit). Bulk vit will handle a large percentage of the wastes that would otherwise have to go through the WTP. A failure occurred during a preliminary test, but they have learned from the test and have made adjustments and modifications as a result.

Ms. Dahl-Crumpler noted that Ecology’s focus has been on looking at the waste forms produced during the bulk vit process. There has been concern about a metal pool forming at the base of the tank and about metal “BBs” that appear in the glass matrix. Ecology expects the material to meet the “as good as glass” standard for consistency of post-melt materials, as is required for the WTP.

Integrated Disposal Facility (IDF)

Ms. Dahl-Crumpler explained the permit process for the Integrated Disposal Facility (IDF). The IDF will ultimately accept low-level and mixed low-level waste, because the low-level waste cell is being built to the same standards as required for a mixed low-level waste cell.

Ecology is currently in the process of responding to public comment on the draft permit, and the next step will be to issue the final permit, expected in early August 2005. It is expected that the permit will be effective in September 2005. The permit will allow immobilized Low Activity Waste (ILAW) and fifty bulk vitrification test boxes. Waste forms not currently permitted include offsite and onsite mixed low-level waste, secondary waste from the WTP, spent and failed melters and full scale supplemental treatment waste forms. Some of these waste forms are planned for disposal at IDF, but a permit modification will be required.

Mr. Kristofzski explained that construction of IDF is on schedule. Cell 1 is 30 per cent complete, cell 2 is 82 per cent complete, and a secondary leak detection system will be installed.

Luncheon Speaker

Greg Hughes of the U.S. Fish and Wildlife Service (Service) gave a presentation about the Hanford Reach National Monument, an area encompassing 195,000 acres located near the Tri-Cities and including part of the Hanford Site. The Service and DOE are joint

stewards of the Monument. The Hanford Reach is 51 miles long, beginning one mile south of Priest Rapids Dam and running almost to the city of Richland. It is the last free-flowing, non-tidally influenced stretch of the Columbia River in the United States. The Service is currently working with an advisory committee, Native Americans and the public to develop a management plan for the area.

CERCLA Five-Year Review Process

CERCLA, the federal Comprehensive Environmental Response, Compensation and Liability Act (also known as Superfund) requires an evaluation every five years on sites where hazardous substances, pollutants or contaminants will remain long term. At Hanford, the review also covers remedial actions that are not yet complete, such as the long-term groundwater pump and treat systems and large removal projects, such as the demolition of the 300 Area industrial complex. The review is to determine if an implemented remedy at a site is protective of human health and the environment.

Staff explained that the five-year review required under CERCLA - the second one to be done at Hanford - must be completed and finalized by April 2006. EPA and Ecology will get a look at the draft report in January 2006, and there will be an opportunity for public review in February 2006. Alicia Boyd and Nick Ceto from EPA presented information about the review process.

The review is done by the lead agency. At Hanford, DOE is the lead agency. The TPA allows EPA to perform the review, if desired. EPA conducted the first review in 2001. The current review is being done by DOE and then will be submitted to EPA and Ecology for concurrence. The review process includes document review, data review and analysis, site inspection, interviews, and an assessment of protectiveness, which includes:

1. Is the remedy functioning as intended by the decision documents?
2. Are the exposure assumptions, toxicity data and Remedial Action Objectives used at the time of remedy selection still valid? and
3. Has any other information come to light that could call into question the protectiveness of the remedy?

Until the site is cleaned up, or as long as site use is restricted, the reviews are to occur every five years. Thereafter, once site cleanup is done, there is some site inspection, but not as much as when the work is still going on. A site visit might include checking fences, checking caps over landfills, talking to stakeholders, that sort of thing. These would continue indefinitely. More discussion was had about how the board could weigh in on long-term stewardship issues. This will be considered at future meetings.

The last review required several action items, including correcting the problems with some of the pump and treat operations. This review will evaluate whether those actions were done and if they are working.

Steve Wisness at DOE is managing the current review. DOE will start with the last review and update it. It will then become the template for the next one. Individual project managers are responsible for preparing the pieces that apply to their projects.

Ms. Cusack said they will be looking closely at how groundwater is addressed, and Mr. Ceto noted that this was an area of weakness in the last report. Mr. Ceto explained that the Alternative Concentration Limits method has been “badly abused” and EPA is not allowing that method any more. It is not working as a means to meet the groundwater cleanup goals and they are looking at other ways to achieve compliance.

EPA is concerned about the change in contractors and will try to get out in the field more often and do more split samples. EPA’s Richland office only has five or six full time employees assigned to Hanford issues. It makes it difficult to cover everything, which is one of the reasons DOE is doing the five-year review this time.

Litigation Update

Mr. Niles provided the board with an overview and update of the various litigation matters that impact cleanup at Hanford.

Importation of Waste

Very little waste has come to Hanford from other DOE sites during the past two years, as a result of a lawsuit filed by the State of Washington and others to stop the importation of transuranic waste to Hanford. The lawsuit was expanded in an effort to also prevent the importation of low-level and mixed low-level radioactive waste. After oral arguments were heard and briefs were submitted to federal court, the judge recently ruled that transuranic waste from the Battelle Columbus site could be shipped to Hanford, but not mixed transuranic waste. Just before those shipments were to begin, DOE suspended shipments of Battelle waste to Hanford when analysis errors were discovered in documents supporting the Hanford solid waste environmental impact statement. Clarification and correction of the errors will be necessary to proceed with the litigation and before shipments resume.

Ms. Cusack said that Ecology is in negotiations with DOE to suspend or dismiss the lawsuit to allow the parties to work together to correct the analysis errors. Any such agreement would include a continuing ban on bringing waste to Hanford. Ecology is optimistic that something can be worked out.

Cleanup Priority Act (CPA)

Washington State initiative I-297 that was passed by the voters in November 2004 included, among other things, a prohibition of importation of most waste to Hanford until the site was cleaned up. The initiative was appealed and a temporary restraining order was issued to prevent its inception.

The Washington Supreme Court recently issued a ruling that the CPA did attempt to expand the state’s authority and that it is likely that if certain portions are ruled

unconstitutional, other portions may still be enacted. All parties were satisfied with parts of the ruling, and now the case goes back to federal court for resolution. The parties expect this to take at least another year or more; in the meantime, the injunction is still in effect so the Act can not be implemented.

Hanford Natural Resources Trustee Litigation

In 2004, the States of Washington and Oregon announced their intent to sue DOE over DOE's failure to assess natural resource injury at Hanford. Since the notice of intent to sue was filed, there has been considerable discussion between the parties, and the states have agreed, for now, to hold off pursuing litigation as long as progress is made.

Natural Resources Defense Council (NRDC)

NRDC and others filed suit against DOE arguing that an internal DOE process to reclassify high-level radioactive waste was not consistent with the Nuclear Waste Policy Act. The appellate court ruled that because DOE had not yet used these internal rules to reclassify waste, the issue was not 'ripe' for litigation.

Trustee Issues

Staff explained that a primary responsibility of natural resource trustees at CERCLA sites is to assess injury to natural resources. A priority of the Hanford trustees has been to encourage early collection of data that would support risk assessments and injury assessment, saving time and money in the cleanup process. DOE has previously declined to support or fund studies proposed by trustees to better assess risk and injury, but in recent months, DOE has taken several positive steps toward support for injury assessment. Staff noted that although commitments are less than that desired by trustees, the recent DOE actions represent significant progress in funding injury assessment.

Approximately 50 risk assessments have been started at Hanford during the past decade. In order for final cleanup and closure of the Hanford site to occur, assessments of cumulative risks to human health and the environment will be needed. Early in 2005, DOE began planning an integration of risk assessments at Hanford. It has organized a work group for planning and has held two workshops (with more planned for fall 2005) to discuss issues and approaches for integration. Staff noted that this process has been very important for the trustees. For the first time, DOE and the Tri-Parties have included the trustees as a partner in the strategic planning of risk integration, rather than presenting plans to the trustees for comment at the end of the planning process. Also, as part of the integration planning process, DOE has explicitly included injury assessment as a topic for consideration.

ODOE staff will participate in upcoming workshops to review the pilot ecological risk assessment recently completed for the 100 B/C area at Hanford, and will also participate in a workshop to review DOE's plans for field sampling and data analysis for sites in the 100 and 300 Areas. Planning is in early stages for assessment of the "river component" of the Hanford site (*i.e.*, assessment of effects of Hanford operations on the actual river,

within the Hanford reach and downstream), and ODOE staff will be actively involved in planning for those assessments.

Emergency Preparedness at Hanford

Deanna Henry provided an overview of the emergency preparedness program at Oregon DOE and how we work with DOE and the other agencies responsible for emergency response.

Ms. Henry explained that the only operating commercial nuclear reactor in the Pacific Northwest is located on the Hanford Site. The Columbia Generating Station (CGS) participates in and conducts emergency drills and exercises to prepare for potential events that could occur at CGS.

A fifty-mile circle around CGS is considered the emergency planning zone. This circle encompasses parts of Umatilla and Morrow counties in Oregon. The emergency response plan includes events at Hanford and CGS.

In Oregon, the emergency response agencies include the Oregon DOE, the Governor's office, Health Services, Department of Agriculture, Oregon State University, Oregon Emergency Management, and Morrow and Umatilla county emergency management agencies.

Ms. Henry explained how the agencies train for incidents and described a recent exercise in which the scenario included a release of radioactivity that reached Oregon and contaminated agricultural products. This was the first scenario involving Hanford that provided training for events in which Oregonians may ingest contaminated products. The exercise provided an opportunity to test communication systems and technical resources, as well as staff and agency coordination.

Damages, losses, and expenses incurred as a result of a CGS emergency are covered by the American Nuclear Insurers. For a Hanford emergency, these are covered under the Price-Anderson Act.

Public Involvement

Ms. Hughs provided an update on public involvement activities and issues. She noted that Oregon sent a letter to the Tri-Party agencies earlier this year expressing concern at the loss of the State of the Site meeting in Hood River, given Hood River's history of high interest in Hanford issues. Another letter was sent in late July reiterating the desire to have a Hood River meeting. The Tri-Parties did not agree to hold a meeting in Hood River.

There was a lively discussion about ways to encourage new people to take an interest in Hanford issues. More discussion is needed to determine in which direction to proceed, and in what areas the board should focus.

This is an issue the board will address at future meetings.

Administrative

The next board meeting was scheduled for November 15 and 16, 2005 in The Dalles.

There being no public comment, the meeting was adjourned at 4 p.m.