

OREGON HANFORD WASTE BOARD

Minutes

Regular Meeting

March 28, 2000
Oxford Suites
Hermiston, Oregon

Mary Lou Blazek, Administrator of the Oregon Office of Energy's Nuclear Safety Division, called the meeting to order at 8:10 a.m. She explained that she was calling the meeting to order because Board Chair Patty Yraguen and Vice Chair Mary Shaver were completing their terms and unable to attend the meeting. Those in attendance for all or part of the meeting included:

Voting Board Members: Thomas Bailor (Confederated Tribes of the Umatilla Indian Reservation (CTUIR)), Casey Beard, Dick Belsey, Mary Lou Blazek (Oregon Office of Energy), Shelley Cimon, Norma Jean Germond, Corky Gillies, Stuart Harris (CTUIR), Barbara Jarvis, Fred Lissner (Oregon Water Resources Department), Armand Minthorn (CTUIR).*

Legislative Members: Rep. Jerry Krummel, Rep. Bob Jenson, Rep. Jeff Merkley, Sen. David Nelson.

Incoming Board Members: Larry Clucas, Jill Eiland, Paige Knight, Eric Nisley.

Oregon Office of Energy Staff: Mary Lou Blazek, Dirk Dunning, Deanna Henry, Susan C. Hughs, Doug Huston, Ken Niles, Susan N. Safford.

U.S. Department of Energy (DOE) Roger Briggs, Richard Holten, Felix R. Miera, K. Michael Thompson, Steve Wiegman.

BNFL, Inc.: Michael Lawrence.

CH2M HILL Hanford, Inc.: William T. Dehn.

Pacific Northwest National Laboratories: Peter Bengtson.

Public: Robert A. McFarlane.

Ms. Blazek introduced the new Board Administrator, Susan N. Safford, a member of the Nuclear Safety Division's staff. Ms. Blazek recognized departing Board members Patty Yraguen, Mary Shaver, Mark Barnes and Dick Belsey for their service to the Board and State of Oregon. She presented Dr. Belsey with a plaque commemorating his service. Dr. Belsey acknowledged his mentors and discussed some of his many Hanford-related activities. He introduced Mr. McFarlane of Physicians for Social Responsibility. Other Board members, including Ms. Knight, Ms. Germond, Ms. Cimon and Ms. Jarvis expressed their gratitude and admiration for Dr. Belsey. Ms. Jarvis regretted the loss of Dr. Belsey's sense of Hanford history and knowledge gained from his many years of involvement with Hanford issues. She regretted the rigid adherence to term limits for Board members and the detrimental effect of such limits on the Board. Ms. Blazek noted the Oregon Office of Energy's recommendation to the Governor to lengthen Board terms, because of the steep learning curve on Hanford issues and need for continuity.

* Three representatives of the CTUIR attended all or part of the meeting, but they exercised only one vote.

Ms. Blazek turned the meeting over to Ms. Safford for election of the new Chair and Vice Chair. Ms. Safford handed out administrative information on the Board (short biographies of Board members, address and phone list) and Nuclear Safety Division staff to the Board. She then explained the provisions in the Board's Bylaws for voting, including quorum requirements, and electing the Chair and Vice Chair.

Ms. Germond nominated Ms. Cimon for Chair. Dr. Belsey seconded the nomination. There were no other nominations for Chair. Ms. Jarvis moved to close the nominations. Ms. Germond seconded the motion. The Board voted unanimously in favor of Ms. Cimon as Chair.

Ms. Safford called for nominations for Vice Chair. Ms. Germond nominated Mr. Beard. Ms. Cimon seconded the motion. There were no other nominations for Vice Chair. The Board voted unanimously in favor of Mr. Beard for Vice Chair.

Ms. Cimon assumed control of the meeting. She asked Mr. Niles, Ms. Germond and Mr. Dunning to discuss the purposes of the Board's three subcommittees: Transport, Public Involvement and Waste Cleanup and Site Restoration. Mr. Niles, the lead staff to the Transport Committee, explained the duties and issues covered by the Transport Committee. The Transport Committee focuses on the transport of radioactive material through the State of Oregon. He discussed current Transport Committee issues including: Waste Isolation Pilot Plant (WIPP) shipments and the transportation effects of the recent Record of Decision on Low-Level Waste and Mixed Low-Level Waste.

Ms. Germond discussed the purpose of and issues addressed by the Public Involvement Committee. She complimented the Nuclear Safety Division on its public involvement efforts. Ms. Jarvis mentioned the slide show that is available for Board members to use when they make public presentations. Mr. Bailor asked whether the Public Involvement Committee has ever addressed cultural or historical preservation issues. Dr. Belsey mentioned the Hanford Cultural Resources Survey. Ms. Germond mentioned the Hanford Advisory Board (HAB) Public Involvement Committee. Mr. Bailor asked whether residents of the area will have an opportunity to provide input into the process. Dr. Belsey said the problem has been that residents have not been interested in providing input, but that there are opportunities to become involved when issues arise. He added that the fact that there are committees does not mean that these are all the committees needed.

Mr. Dunning discussed the purpose of and issues addressed by the Waste Cleanup and Site Restoration Committee.

Ms. Cimon described the committee appointment process and asked Board members to contact her regarding which committees they are interested in serving on. She said committee appointments would be made at the June meeting.

Rep. Krummel asked about disbanding the Hanford Health Information Network. Ms. Blazek and Ms. Cimon explained that the U.S. Department of Energy (DOE) stopped funding the Hanford Health Information. Mr. Miera added that Mr. Briggs would be speaking to the Board in the afternoon and could address that issue.

Ms. Jarvis raised a future meeting agenda item of updating the Bylaws and recommended forming a committee to do so.

Agenda Item 1: Hanford Fiscal Year 2001 and 2002 Budgets

Mr. Richard Holten, Director of the Richland Operations Office's Mission Planning Division, handed out copies of the "Bluebook," the Draft Richland Operations Office March 2000 Public Meetings Draft FY 2002 Budget Prioritization and the Draft Richland Operations Office FY 2002 Integrated Priority List (IPL). Mr. Holten described the budget process. He said the DOE's 2001 guidance is to use the prior year's number plus either a 10 percent increase or a decrement case. The DOE chose not to use the decrement case this year. Mr. Holten said, in response to a question from Ms. Cimon, that the DOE requested a ten percent increase. Mr. Holten said the 2001 budget request is going to Congress now. He explained the relationship between the IPL and the Bluebook. Even though the IPL is a priority list, it is not exactly in priority order on the page. The Base Operations figure is composed of Essential Safety - "things that must be done at a bare minimum" - and Essential Services, which are expenditures directed by Congress, such as Oregon's grant. The DOE strives to keep the Base Operations figure low so that money can be used for cleanup instead.

Mr. Holten said the Office of River Protection has an entirely separate budget.

Ms. Knight asked about the Congressional reinstatement. Mr. Holten said that each year Richland has to pay certain tax-like money. This year Congress took too much and gave some back, the "reinstatement." Mr. Holten said, in response to a question from Ms. Blazek, that DOE senior managers decide what to do with the Congressional reinstatement.

Mr. Holten pointed out a number of items in this year's budget. He said to note that this year there is more focus on the river. For example, the K-Basins are listed first. Next is the environmental restoration project. The next category is the central plateau, including plutonium finishing plant stabilization and treatment of wastes in storage facilities. There are then several smaller projects such as 233 S (a laboratory), which is on an accelerated schedule due to safety concerns. The bottom of that category is what would be funded on a flat budget. Next are the incremental items for 2001. Mr. Holten said these are the items that would be funded in 2001 if there is extra money.

In response to questions, Mr. Holten said the DOE cannot complete work necessary for compliance without the Essential Services funding. He said the DOE does review the cuts made by contractors. Ms. Knight asked if the creation of the IPL was an unnecessary expense and whether the budget process was too expensive. Mr. Holten said the reason the DOE produces the IPL is that it does not have enough money for what it needs to do. As a result, it is forced to prioritize. Ms. Blazek noted that the DOE is required to request adequate money to complete its cleanup obligations.

Several individuals asked why the DOE repeatedly fails to obtain funding to meet its cleanup obligations. Mr. Holten said Congress cuts the DOE's budget requests. He said the Office of Management and Budget provides targets, but does not do the cutting. Mr. Holten said in response to a question from Rep. Merkley, that the DOE's Headquarters cannot change what the Richland

Operations Office requests. Mr. Holten said, in response to a question from Mr. Beard, that the budget requests are tied to an overall life-cycle cost estimate and escalation due to inflation is factored into the numbers. He said fees are profits to contractors.

Mr. Holten described the site vision as restoring the river corridor, transitioning the central plateau and putting the DOE's assets to work for the future. Ms. Knight said the budget process looks like a showpiece schedule rather than a real risk reduction effort. Mr. Holten said everything done is geared towards cleanup. He added that the focus on outcomes results from Congressional concern. He said it is hard for people back East to see what they are getting for their money.

Ms. Germond moved that the Board write letters asking for full funding for the Office of River Protection and the Richland Operations Office. Ms. Jarvis seconded the motion. The motion passed unanimously.

Mr. Beard noted that by endorsing the budget proposal as is, the Board endorses a cut of oversight funds for the Hanford Advisory Board, the Oregon Office of Energy and the Oregon Hanford Waste Board. Ms. Blazek said the Oregon Office of Energy's budget has not been increased from the \$543,000 level of funding even though its current budget to operate is \$660,000. At \$543,000, she said, one position cannot be filled.

Ms. Cimon moved to write a third letter addressing the Oregon Office of Energy's budget.

Ms. Blazek clarified that the Board was requesting two letters: one supporting full compliant funding for the Office of River Protection and the Hanford budgets for fiscal years 2001 and 2002 and another letter seeking an increase in the Oregon budget. The second letter would include language supporting an increase in funding for the Hanford Advisory Board as well.

Agenda Item 2: Tank Waste Treatment Update

Steve Wiegman, Senior Technical Advisor for the Office of River Protection, introduced William T. Dehn, Executive Vice President and Deputy General Manager of CH2M HILL Hanford Group, Inc. and Michael J. Lawrence of BNFL, Inc.

Mr. Wiegman said that Hanford contains 60 percent of the nation's high-level waste in the underground tanks. Many of the tanks are beyond their design life. Sixty-seven tanks have leaked. That is why the DOE is working to remove and treat the waste.

Mr. Wiegman described the Office of River Protection's goals and budget request. The goals are: ensure a safe and stable tank farm, acquire waste recovery, feed, and disposal systems/facilities, acquire tank waste treatment facilities, treat the target (10 percent by volume, 25 percent by radioactivity) waste volumes. The Office of River Protection's fiscal year 2001 budget requests will include: \$382 million for CH2M HILL Hanford, Inc. (CH2M HILL) and \$450 million for BNFL, Inc. (BNFL). The Office of River Protection's total fiscal year 2001 request will be \$832.1 million.

Mr. Dehn described CH2M HILL's work on the tank waste project. He described work to address safety problems in tank farms. There are many problems resulting from aging equipment. Some of the lines or transfer systems have failed and leaked. Tank farm infrastructure does not operate properly 20 percent of the time. Dehn said CH2M HILL is not building new transfer lines, because it will be years (20 or so) before the salt cake and sludge is removed from the tanks. Also, funding is uncertain.

Mr. Dehn said CH2M HILL is to receive \$1 billion for capital upgrades by 2007 to support the waste vitrification facility. The funding will be used for:

- Vitrification facility infrastructure, which includes fixing roads, a power substation, piping for plant water and waste discharge, and construction site preparation;
- Tank retrieval systems, which include in-tank mixer pumps and upgrades to existing tank sensors, pumps, monitors, utilities, and control systems; and
- Immobilized waste storage and disposal facilities, which include transportation and interim storage capabilities for vitrified high-level waste and a remote operated waste trench for the vitrified low activity waste.

Mr. Dehn said the fiscal year 2001 budget is sufficient to proceed with waste retrieval and treatment. If the tank waste treatment cannot be initiated by 2007, additional tank capacity is required at \$80 million per tank. Dr. Belsey asked about alternatives if the current plan fails. Mr. Wiegman said it would depend on the cause of the failure.

Mr. Lawrence provided an update on BNFL's vitrification project proposal status. The plan is to vitrify 54 million gallons of waste that contains 190 million curies of high-level radioactive waste. Fifty million curies and ten percent of the waste would be treated and disposed of by 2018. BNFL has selected a 67-acre site. The land has been cleared even though the pretreatment and vitrification facilities will not be built for a while.

The pretreatment facility will be capable of processing 60 metric tons of waste per day. The low-level waste vitrification facility can process 30 metric tons of processed waste per day. In order to match the volume of the pretreatment facility, BNFL made room for the construction of a second low-level waste vitrification facility. Finally, the high-level waste vitrification facility can process 1.5 metric tons of waste per day. Mr. Lawrence said if the DOE instructs BNFL to process all of the waste by 2048, BNFL would double the capacity of the high-level waste vitrification facility by adding a building and an extra melter.

BNFL will submit its vitrification plan cost proposal to the DOE on April 24, 2000. According to Mr. Lawrence, if the project fails on day one, BNFL will be responsible for the cost of the project. He said the project is cost efficient, because BNFL is risking its own money first.

Mr. Lawrence also talked briefly about the quality control and document falsification problems that occurred at the British Nuclear Fuels Ltd. facility in Sellafield, United Kingdom. He summarized what happened. He described the incidents as a big black eye for the company. As a result, he said, the Hanford project becomes more important than ever to BNFL.

Ms. Cimon asked Mr. Wiegman about the DOE's and the Office of River Protection's positions regarding external oversight for the project. Mr. Wiegman replied that oversight will be consistent with commercial practices. However, if the NRC were to provide external oversight, some of the specifications of the facilities would have to be changed to meet NRC requirements. This would cause a significant delay of the project. Mr. Lawrence agreed that external regulation would delay the project significantly and, in his personal view, not make the facilities any safer.

Ms. Blazek asked how the Oregon Hanford Waste Board could help BNFL get the vitrification project running with some assurance that the job will be done correctly and safely. Mr. Lawrence replied, "Continue the process. Follow the project closely." He noted someone might tell BNFL to stop the process because of the presence of polychlorinated biphenyls (PCBs) in the tank wastes. He said that hurts the process and that everyone needs to work together to move the process ahead.

Ms. Knight asked what BNFL is doing in the U.S. to avoid the quality assurance and other problems occurring at its facility in the United Kingdom. Mr. Weigman replied that the DOE requested a review of the U.S. activities. Mr. Lawrence said that BNFL operates in the U.S. under a different system. He said BNFL supports whistle blowers.

During the afternoon session, Mr. Huston reported on external regulation of BNFL and the tank waste process. He said the regulatory unit currently seems to be doing its job. He recommended not to press for external regulation with a letter now. He said the Oregon Office of Energy would monitor the situation and keep the Board informed.

Agenda Item 3 – Tritium Discovery in 618-11 Burial Ground.

Michael Thompson, Acting Program Manager, Groundwater Vadose Zone Integration Project, addressed the Board on this topic.

Mr. Thompson summarized some history and background information about the 618-11 burial ground. It received wastes from the 300-Area between 1962 and 1967. It is located next to the Energy Northwest facility, about halfway between the 200 and 300-Areas, 3 ½ miles from the Columbia River. The 618-11 burial ground is about 30 feet deep. There is 60 feet of sandy soil between the surface and groundwater. Materials from the 618-11 burial ground travel through the groundwater to the Columbia River in 3 to 30 years. Radioactivity levels from some of the 300-Area wastes were so high that they could not be transported to the 200-Area. The wastes in the 618-11 burial ground include: uranium shavings, spent nuclear fuel chips, transuranic materials, solvents, and, apparently, lithium tritium targets.

The DOE installed a groundwater monitoring well just beyond the eastern edge of the 618-11 burial ground in August 1995 to check for gross alpha and beta radiation. There was no analysis for tritium. In 1998, Pacific Northwest National Laboratory decided to use the well to help monitor the tritium plume in that area of the Hanford site. A sample for tritium was obtained in January 1999. The sample result was 1.8 million picocuries per liter, but senior staff did not recognize its significance for nearly a year. It was recognized early by junior staff. The maximum contaminant level (mcl) for

drinking water is 20,000 picocuries per liter. After the 1.8 million picocurie sample result was recognized by senior staff, the DOE conducted additional sampling early in 2000 and obtained a sample result of 8 million picocuries per liter from the same well from which the 1.8 million picocurie sample had been obtained.

The DOE identified 27 wells in the area, mostly down gradient from the burial ground. They identified 22 wells from which samples could be obtained. Within a week of knowing the 8 million level, samples from all 22 of the other wells were obtained. The sample results for tritium ranged from 300 picocuries per liter (non-detect) to about 50,000 picocuries per liter. Readings in the well of concern were about 7.3 million picocuries per liter. Mr. Thompson said the real high level readings are localized near the burial ground. A well ¼ mile farther down gradient did not have such elevated readings. It is not clear whether samples from that well are from the same part of the aquifer.

The DOE will complete a new draft plan on April 3 for assessing/studying this tritium issue. The plan will be sent out for review. The DOE expects to take additional samples. They may drill some new wells (or push pipes in rather than drill). The DOE wants to identify the size and concentration of this plume. The well from which the 8 million picocurie sample was obtained will now be checked monthly rather than annually.

Mr. Thompson talked briefly about what could be the source of the tritium. He said Hanford produced some tritium in the 100-Area for weapons production. One tritium/lithium target could contain as much as 70,000 curies of tritium. There is another similar burial ground, 618-10, nearby. It may have similar or even worse problems according to Mr. Thompson.

Mr. Thompson said there is no money currently identified for further studying the extent of this plume, but it is a high priority and will be funded. He said money will be reprogrammed from other areas.

Mr. Thompson said there is an environmental impact statement specific to all of Hanford's burial grounds. It states that all burial grounds containing transuranic waste will be exhumed. The 618-10 and 618-11 burial grounds contain transuranic waste.

Mr. Thompson said the DOE estimates a cost of \$300 million to remove, treat and dispose of the waste in the 618-11 burial ground. Cost is a big issue. Worker safety and potential exposures to Energy Northwest employees are also major issues. According to Mr. Thompson, the DOE's original intent was not to move forward with remediation of the burial ground because it was not affecting groundwater. Now that it is, remediation will have to be re-examined. Remote equipment and shielding will be necessary to dig into these burial grounds.

Mr. Thompson acknowledged that the reporting of the discovery of the 1.8 million tritium picocurie sample was a problem. He said that, initially, testing of the well for tritium was simply to help measure the site-wide tritium plume. The "trigger" for reporting elevated tritium associated with the site-wide plume is 2 million picocuries per liter, which was not reached by the 1.8 million picocurie sample. He said the 1.8 million picocurie sample should have been reported and further examined when it was discovered. The scientist monitoring the sampling results should have recognized the 1.8 million picocurie sample as a significant anomaly for the area from which it was obtained.

The DOE is considering different ways that data can be reported – more than just in an annual report. They are considering presenting the information on a web site that would show trends or other data of interest or concern.

Mr. Thompson said there is a tremendous amount of waste in the ground. There are tank leaks and at least 300,000 curies of tank waste were intentionally disposed to the soil. The role of the Groundwater Vadose Zone Integration Project is to determine what the impact has been and will be as cleanup moves forward. Mr. Thompson also said the DOE's current plan is to remediate all burial grounds outside of the 200-Area. Burial grounds in the 200-Area that contain transuranic waste would also be remediated.

Ms. Jarvis expressed her frustration with the scientists' inability to recognize the significance of the tritium readings. She said it was an indicator to her that the scientists are mere "record keepers" rather than conducting scientific research.

Ms. Germond suggested that the DOE conduct a public workshop to better explain the extent of the groundwater vadose zone problems.

Ms. Germond moved for the Board to request that staff draft a letter to the DOE expressing concern over the delay in reporting and recognizing the high tritium levels and the Board's support for the "remove, treat and dispose" alternative for cleaning up the 618-10 and 618-11 burial grounds. Mr. Casey seconded the motion.

The 1987 environmental impact statement supports that method of cleanup for those two burial grounds, according to Mr. Miera. He said the U.S. Environmental Protection Agency record of decision from five years ago provides that the 618-10 and 618-11 burial grounds do not need immediate action.

Ms. Blazek suggested that the Board consider a more lengthy discussion on groundwater vadose zone issues for its June meeting. Such a discussion could be incorporated into a public workshop.

Agenda Item 4: Evaluation of Tri-Party Public Involvement Activities in Oregon

Ms. Henry explained that there would be a departure from the materials on this agenda item in the meeting notebook. The public involvement activities evaluation needs to be completed earlier than indicated in the meeting notebook, because the Richland Operations Office is conducting an evaluation now.

Ms. Henry further explained that the Public Involvement Committee intends to provide an evaluation of the DOE's success in achieving its public involvement objectives at meetings on: the Fast Test Flux Facility, the budget process, the Idaho high-level waste draft environmental impact statement and tank waste treatment. She said the Oregon Office of Energy staff will prepare a product for the Board's Executive Committee to review and then submit the report to the Richland Operations Office. She

described briefly some of the problems with the Portland public meeting on the Idaho high-level waste environmental impact statement as an example of the types of comments the report will provide.

Mr. Lissner commented that it seems clear that the DOE does not want to do public involvement, will only do what it has to do, and may design public involvement events to fail. He said the Board should be working to make the DOE want to do public involvement.

Ms. Knight noted the difference in attitudes between the Oregon and Washington public interest groups. She said the DOE needs to stick to working with the Oregon groups. She said the Richland Operations Office has come to appreciate the Oregon groups' well-reasoned responses and reluctance to use the DOE as whipping boys. She suggested that the Oregon Office of Energy develop a checklist of suggestions for successful public involvement meetings (i.e., what to do two weeks prior to the meeting etc.) to give to the DOE. She added that values need to be expressed, such as avoiding obfuscation and valuing truth and honesty.

Mr. Minthorn said the Confederated Tribes of the Umatilla Indian Reservation may draft a similar letter and the legislative members should do the same.

Several meeting attendees commented on various federal statutes that contain public involvement requirements, including: the National Environmental Policy Act (NEPA), Washington State Environmental Policy Act (SEPA), Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), Resource Conservation and Recovery Act (RCRA), Washington Model Toxics Control Act (MTCA), Federal Advisory Committee Act (FACA) and National Historic Preservation Act (NHPA).

Mr. Bailor commented that Hanford is considered a local issue. He recommended using television, including cable to raise awareness.

Mr. Minthorn asked whether the Board opposes restart of the Fast Test Flux Facility. He also asked what the Oregon delegation's position is.

Ms. Blazek said Governor Kitzhaber opposes restart of the Fast Flux Test Facility for production of tritium. She said the Governor would consider supporting a medical isotope mission that can be accomplished while meeting a number of conditions.

Mr. Minthorn inquired whether the Governor needs more information. Ms. Blazek recommended waiting to find out whether Congress appropriates funds for completion of studies regarding restart. Mr. Minthorn recommended contacting the Governor's natural resources advisor to encourage the Governor to actively oppose restart of the Fast Flux Test Facility.

Representative Merkley indicated that the Board's legislative members might be able to write a letter as well. He said term limits have wiped out institutional memory. There is a need to re-inform new legislators on Hanford issues. He said memorial legislation is a rubber stamp process. In-depth education about Hanford issues is necessary. Representative Krummel said legislative members of the Board can help educate members of the legislature.

Ms. Germond requested input from the Board by April 3. She proposed drafting a letter to the Tri-Parties, to be evaluated by the Executive Committee and anyone else interested. Her proposal was moved by **[Someone please provide this.]** seconded by Dr. Belsey, and passed by a unanimous vote. Ms. Knight, Mr. Minthorn, Representative Krummel and Representative Merkley asked to participate in the review process along with the Executive Committee.

Agenda Item 5 – Idaho High-Level Waste Environmental Impact Statement (EIS)

Mr. Niles summarized the proposal to send high-level waste from Idaho to Hanford for vitrification. He said Oregon's initial response was, "Why would anyone want to do that?!" But, Idaho is never going to have its own vitrification plant. He said an intriguing idea is to have Idaho join forces with Oregon in dealing with waste on the two sites. Oregon submitted policy, technical, and public involvement comments on the Idaho EIS, saying essentially that it is too soon to either choose or eliminate Hanford, or any facility.

Ms. Knight commented that there is a need to act as a region – an unpopular idea within much of the activist community, she said. According to Ms. Knight, there are many more EISs in the queue to use Hanford as the nation's waste dump. She said there must be a unified regional front.

Agenda Item 6: Waste Isolation Pilot Plant Update

Mr. Niles appeared for what he said was the twenty-seventh time to provide a report on plans to begin Hanford waste shipments to the Waste Isolation Pilot Plant (WIPP). WIPP now has a permit from the State of New Mexico. The DOE still has pending legal action against New Mexico. Rocky Flats is sending two shipments a week. Rocky Flats is scheduled to complete its WIPP shipments in 2006. Hanford shipments are next. An audit of Hanford's waste handling and characterization procedures is complete and went well. The State of New Mexico will complete its review of the audit results in April or May. The hope is to commence shipments from Hanford to the WIPP in late May. There may be two shipments a month in the beginning. There are some problems with limited shipping capacity.

Mr. Niles said Oregon's routes are ready. Current plans are to ship all transuranic waste by truck, although rail shipments may be considered in the future. The current transportation safety program is designed for truck shipments and would need revision if rail were to be used. The safety program will also need revision to prepare for the beginning of remote-handled transuranic waste shipments sometime in the next few years. Mr. Niles said the DOE has not agreed to use the WIPP transport safety protocols for intersite shipments of transuranic waste. The Western States appointed a group to advise the DOE on this issue. That group will not support a relaxation of shipment standards.

Mr. Niles recommended that the Board send a letter to the DOE recommending use of the Western States' transportation safety program for all transuranic shipments. Ms. Germond moved that the Board send such a letter to the DOE. Mr. Gillies seconded that motion. The Board voted unanimously in favor of the motion.

Agenda Item 7: Recent News Concerning Radiation Exposure to Department of Energy Workers

Mr. Roger Briggs, DOE Office of Special Concerns, described the relatively new focus on worker complaints about illnesses. He said part of the new effort is an attempt to level the playing field by making it easier to file claims. The new initiative was implemented first in addressing beryllium exposure at DOE sites and plutonium exposure at Oak Ridge. Legislation is being written to implement the initiative, but the DOE is already acting on the initiative.

Mr. Briggs described the public meeting held in Richland regarding Hanford workers' exposure to beryllium. He said the public meeting was an opportunity for people to tell their stories and for the DOE to listen. There was a very large turnout and high interest he said.

Ms. Blazek asked why people did not tell the DOE about their health problems before the Richland meeting. Mr. Briggs replied that people do not trust that anyone will actually listen. Ms. Blazek said she was astounded that no one over all the years had expressed concern about health problems and how they might be related to exposure.

Mr. Briggs said sarcoidosis and chronic beryllium disease have identical symptoms. Diagnosis is possible only with special tests. According to Mr. Briggs, the DOE believes that 20,000 current and former workers may have chronic beryllium disease.

Ms. Jarvis asked if the medical climate is inhospitable so that workers do not dare make complaints. She asked, "Are Tri-Cities doctors willing to diagnose work-related illnesses?" Mr. Briggs answered that diagnosis is not a problem. Current workers are monitored, screened for beryllium, noise, asbestos, etc. There is an active beryllium awareness group on site.

Ms. Knight asked, "Now that we've had hearings, what's next?" Mr. Briggs replied that people need an avenue for action, a way to access decision-makers. They need personal stories to create power and weight for change. He said, "We know there is a problem."

He mentioned the [_____] Mortality Study released April/May. The report describes lung cancer exposure from ionization radiation at Savannah River, Idaho National Environmental Engineering Laboratory, Oak Ridge and Hanford. Mr. Briggs said he would like to make a presentation on this topic to the Hanford Advisory Board as well.

Agenda Item 8: Oregon Office of Energy/Department of Energy Richland Agreement on Groundwater/Vadose Zone Issues Resolution

Mr. Dunning discussed the DOE/Oregon agreement on the Groundwater Vadose Zone Integration Project. The Oregon Office of Energy worked to establish discussions with DOE directly instead of its contractors. Mr. Thompson agreed to complete seven action items. He had completed four of the action items as of the meeting. The Oregon Office of Energy and DOE are meeting monthly to discuss the status of the Groundwater Vadose Zone integration project.

There were a number of technical questions about how the elevated tritium level was discovered, the nature of the plume, and the DOE responses/planned action. Mr. Dunning discussed the fact that there

was tritium in the 618-11 burial ground, but it may have been listed in site records as hydrogen. He said it is possible the plume is closer to the Columbia River than indicated. He mentioned the invalidity of the DOE's modeling and that, within days of the meeting, the first slant well under the tanks would be drilled. Ms. Blazek explained what a slant well is. She asked that the public wait for the Oregon Office of Energy to try to work with the DOE to address some of the Groundwater Vadose Zone and 618-11 burial ground issues.

Ms. Cimon cited previous problems with the Hanford Advisory Board's Environmental Restoration Committee. Ms. Knight opined that that committee has nothing substantive to offer. Mr. Beard discussed having a briefing in Eastern Oregon on Groundwater Vadose Zone issues.

Mr. Minthorn asked what the purpose of all the data gathering is. He said the DOE has no answer. He said we need an answer and the longer we wait the more problems we will have to deal with. He respectfully disagreed with efforts to obtain the DOE's cooperation. He said our senators can help and the Board needs to hear directly what the plan is.

Ms. Cimon said it is imperative that the Board ask for accountability. She suggested adding the Groundwater Vadose Zone to the June Board meeting agenda depending on the outcome of the next meeting between the DOE and Oregon Office of Energy. Ms. Cimon mentioned that the Hanford Advisory Board's Environmental Restoration Committee has discussed this topic over and over again.

Mr. Minthorn discussed the potential effects on the Hanford Reach.

Mr. Clucas asked about inviting congressmen and senators to Board meetings. Ms. Blazek said they would be invited to the next meeting, including their staff. Ms. Cimon suggested building a substantive agenda that could serve as tutorial for them.

Representative Jenson raised the possibility of the legislative members writing letters if they have help drafting them as well as letters from the Board. He indicated that the legislative members could be helpful. Ms. Blazek said staff would draft something for legislators to sign on the groundwater vadose zone issue.

Mr. Harris commented that the DOE has been indifferent to his input. He discussed problems associated with a giant computer model run by a Pacific Northwest National Laboratory contractor to determine where waste is on the site. He described the origin of Hanford area sediments and how the model does not reflect such information or correlate with well data. He criticized the contractor's unwillingness to share the code for the program. He suggested having an expert from Bechtel check the model. He said there is a lack of data on the location of source terms as well and that the passage of time only makes these problems worse

Ms. Germond inquired why none of the source terms from the 200-Area are being used. Mr. Dunning explained the aggregation concept and why it is invalid. Mr. Harris said the CTUIR will send out a letter on this project with copies to the Oregon Office of Energy and Board.

Ms. Cimon reminded Board members to let her know their committee preferences.

Mr. Minthorn moved to approve the Draft Minutes from the October 1999 Board Meeting. Ms. Germond seconded the motion. The Board voted unanimously to approve the minutes as amended by four comments made by Ms. Jarvis.

Ms. Cimon asked for public comments. There being none, the meeting was adjourned at 3:00 p.m.