

MINUTES OF NUCLEAR WASTE ADVISORY COUNCIL MEETING  
May 16, 1986

WM Docket Control  
ENTER

9:30 a.m.

EFSEC Hearings Room  
Rowesix - Building #1  
4224 Sixth Avenue S.E.  
Lacey, Washington

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Council Members Present:

Warren A. Bishop Chair  
Harry A. Batson  
Philip Bereano  
Pam Behring  
Phyllis Clausen  
Nancy Hovis  
Russell Jim  
Dr. Estella B. Leopold  
Valoria Loveland  
Terry Novak  
Sam Reed  
Robert Rose  
Betty Shreve  
Jim Worthington

WM Record File

101.3

WM Project 10

Docket No.

PDR ✓

LPDR ✓

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The meeting was called to order by Warren Bishop, Chair.

Hanford Historical Documents Review Committee

Warren Bishop commented on the press conference held prior to the meeting of the Committee. He said the conference had been called to describe the roles of the Committee and the Environmental Monitoring Committee with their respective chairs. The question of funding for the review of the documents and CDC Study arose, as the day before the Governor's Office began to get signals that these activities would not be funded by USDOE. Mr. Bishop felt assurances had been given by Michael Lawrence, Manager Richland Operations, USDOE, in a meeting he attended with Terry Husseman in Richland. No official notification had been received, he said, and every effort would be made to re-establish the understanding he thought existed.

Dr. Filby commented he was surprised with the focus of the press conference, as he had no knowledge of the funding situation. He said the present status of the Hanford Historical Documents Review Committee was discussed with the press, and Nancy Kirner described the CDC Study. Lesley Russell, Professional Staff for the House Committee on Energy and Commerce in Washington, D.C. also spoke with the press. The Energy and Commerce Committee is chaired by Congressman Dingell from Michigan, who also chairs the Oversight and Investigation Subcommittee which is reviewing the historical documents released by USDOE. He said they emphasized there would be

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cooperation on all three of these studies. When the conference was turned over to the press, most of the questions centered on the funding. Dr. Filby commented all participants were extremely disappointed and surprised, and he was in particular, as the Committee was organized primarily at the suggestion of Mike Lawrence in a letter to Governors Gardner and Atiyeh of Washington and Oregon.

Dr. Filby said the current status of the Committee is that the Committee is in the process of receiving nominations for the Peer Review Panel, which will oversee the work of the Committee during its first phase and during any subsequent phases. The staff has prepared the grant request, which was submitted on April 7, but no official word has been received on the status of that. A Request for Proposal has also been prepared to cover the first phase of the project. That has gone out and contractors are in the process of bidding and preparing proposals. Until the funding situation is cleared up, he said, the Committee is at a standstill. Dr. Filby said the Committee had been doing work for which they assumed it had funding, and they think to some extent they have been misled. They hoped the situation could be clarified to enable them to continue the work that has begun as it is of vital importance. He said should funding not be forthcoming from the USDOE, it would be necessary to attempt to secure funding elsewhere within the federal government. He further remarked that only \$40,000 was being expended to pursue the first phase and some commitment from the USDOE should be given that the second phase would receive funding also.

Mr. Husseman explained that the original request was for funding under the Nuclear Waste Policy Act, believing that issues involved with these releases are all directly related to the repository selection process. He said should Hanford not be selected for characterization the importance of the studies would justify federal funding. Mr. Husseman continued that the reason for the problem was definitely not a lack of communication between the state of Washington and the U.S. Department of Energy concerning the needs of the state and the reasons. At the first meeting in March of the Historical Documents Review Committee they adopted an approach which included a need for funding to hire a contractor. The CDC Study had begun in January. At the March meeting, Ron Gerton of the USDOE made a presentation of the documents and was specifically asked whether USDOE intended to fund the new Committee's study of the documents. His response was that they certainly wanted to contribute and participate in the funding, but he could not commit to full funding of the study. This was of concern as the documents had been turned over to the two states by the U.S. Department of Energy with a request that an independent study be done. In the Governor's letter agreeing to do the study, sent to the USDOE, it was clearly stated the state would be looking to USDOE for funding. Because of Mr. Gerton's statement, a meeting was set up with Mike Lawrence, Manager of Richland Operations, USDOE, and Warren Bishop, Charlie Roe and Terry Husseman, specifically to talk about this issue. During the course of the discussions, Mr. Bishop made it clear that the state did not have the funds to conduct the study and should USDOE

not fund the project it might be necessary to return the documents for USDOE to do the study. An agreement was reached that if the CDC and Hanford Historical Documents Review were combined in a single grant request of about \$90,000, it was the clear understanding by the state representatives that the USDOE would fully fund that phase of the study.

The Office prepared the request in the format discussed and submitted a grant request for approximately \$99,000, which was the final figure to cover the two studies. About two weeks ago, in a telephone call, USDOE took the position they could not fund these studies under the Nuclear Waste Fund as they considered it was not repository related. They indicated another means of funding would be forthcoming, which would be a sole source contract with the state of Washington. At that point, Mr. Husseman said, they requested USDOE to send this agreement in writing. Nothing was received from USDOE until two days ago, when a phone call to Curt Eschels indicated \$50,000 of the \$100,000 request would be funded.

In the discussion that followed on this subject the Council felt strongly that funding by USDOE should be pursued. Representative Ray Isaacson from the 8th District added that the Legislature had established the need for good epidemiological studies and budgeted for that. He said he was unaware where those funds were right now. He said apparently the release of the historical documents was done in reference to the AEC's program to provide defense materials. This is an entirely separate program from the waste issue so this may create a conflict between those two programs. He suggested going back to USDOE and appealing for funds from the defense waste fund.

Mr. Bishop introduced Lesley Russell, Professional Staff for the House Committee on Energy and Commerce in Washington, D.C., chaired by Congressman John Dingell from Michigan. The Committee is composed of six subcommittees with very broad jurisdiction in a number of areas which relate to Hanford. One of those is an Oversight Investigation Subcommittee. Prior to the latest developments, they had been concerned with Hanford from a number of different points of view. The Energy Conservation and Power Subcommittee, chaired by Congressman Ed Markey, has been concerned with the mixed waste issue. Ms. Russell said there was a sense of extreme dissatisfaction with the fairly arbitrary decisions that have been made about how some of that mixed waste should be regulated. Since the Chernobyl disaster, Congressman Markey's Subcommittee has also been looking at safety issues, particularly as related to the N-Reactor. The Oversight Investigations Subcommittee has been involved in a number of different facets concerning federal facilities, of which Hanford was one. Some of this had arisen from earlier studies the Subcommittee had done on compliance with RCRA regulations for solid hazardous wastes, and in particular the groundwater monitoring requirements. They are also concerned about certain security issues in general at federal facilities.

More recently, Ms. Russell said, when the 19,000 pages of documentation were released, Congressman Dingell and Congressman Ron Wyden from Oregon, the ranking majority member on the Oversight Committee, wrote to USDOE requesting all that documentation plus some more information as well. They now have a large part of that, including some classified information, and they will be going back until they get it all. With all the investigations going on, she said, there is a considerable amount of overlap, and those involved communicate with each other on a regular basis.

Ms. Russell said her major responsibility is to look at the health and environmental effects that have resulted from these releases at Hanford over some 40 years. She said her personal opinion was that the deliberate releases pale into insignificance beside some of the accidental releases that are continuing to be made. They have been unable to get a number of people to assist in this area. Congress itself has limited monetary resources, but it does have access to qualified personnel.

Ms. Russell said the thrust of their work was a matter of appropriateness: Are the standards used by USDOE for those civilians who live outside the Hanford facility appropriate? Are the statutes and regulations that USDOE uses appropriate to ensure the continuing safety of the health and environment in the region? Is it appropriate for the USDOE to be the watchdog at its own facility? She said the situation is somewhat aggravated now because Hanford is a possible candidate for a high-level waste repository. Therefore, the matter of managing hazardous waste, and in particular radioactive waste, becomes more essential.

Ms. Russell said because Congress does have limited facilities and has the same concerns as the state, studies like the CDC Study should be done in the national interest, as well as the local interest.

Russell Jim said in light of the deliberate contamination, some 149 billion gallons of material deliberately put in ponds, would Ms. Russell elaborate on her statement on how the deliberate releases pale to some of the accidental releases. Ms. Russell said her statement referred more to the release into the atmosphere. There were a lot of releases made to the atmosphere and to the river and there is now evidence of contamination of the groundwater as a result of accidents.

Valoria Loveland suggested that a member of the Council participate in the next series of meetings with USDOE to understand their reasoning. Pam Behring concurred. Estella Leopold said she approved the spirit and principle of the suggestion, but that it would be appropriate to make some motion to back the efforts of the Chair and Mr. Husseman.

Phil Bereano moved that: "The Council supports the state's effort with the U.S. Department of Energy to secure the necessary funding of the Hanford Historical Documents study and the CDC Study;

expresses concern for the health and safety of the citizens of the state; and urges all officials of the state to proceed vigorously with the effort to secure funding." The motion was seconded.

Representative Isaacson reminded the Council that the ratepayers and the utilities would not pay for something that must come from the U.S. Department of Defense and the USDOE. Without giving clear guidance and direction to the USDOE in the request for funds, the results might be disappointing and frustrating. The government bureaucracy, he said, operates differently from a business, as they have restrictions placed on them by Congress and others. In this case, he said, which is a Defense Department issue--to have the ratepayers fund the studies would be a real problem.

Don Provost commented the President has made a commingling decision and the USDOE is now in the process of looking at what percentage of the cost of the repository should be paid by the defense side. The current thinking is it might be about one-third of the cost. This issue will go to public meetings, he said. The state has maintained the defense wastes affect siting there, and could be funded out of the Nuclear Waste Policy Act.

Max Powell of USDOE-Richland emphasized that BWIP feels it will pay its fair share, but that would not be 100%. There are mechanisms in place within USDOE that BWIP will pay into the fund for this study. He said he could not speak about the defense side.

The motion was called and passed unanimously.

Mr. Bishop introduced a guest in the audience, Bill Clausen, Assistant Director of Nuclear Programs in Minnesota. He commented he was not in town on business, but wanted to mention Minnesota had had very good relations with the state of Washington and the Yakima Indian Nation.

Valoria Loveland reported that Bill Sebero, the only Advisory Council member not present, was still at home recovering from his visits in the hospital. He said he was in good spirits and very positive about his recuperation.

#### Minutes

Approval of the Minutes of the April 18 meeting was postponed as some of the members had not received their copies of the Minutes. Mr. Husseman assured the Council that the Agendas and Minutes were mailed to both the Board and Council ten days before the meeting. Agendas are required to be mailed ten days prior to a meeting under the statute. He said he knew the Office met the deadline, and would check with the Mail Room at Headquarters to see if there were a delay.

## Recent Developments

Mr. Husseman discussed the recent developments on significant issues outlined in the memorandum of May 15. A new development concerning the N-Reactor, since the memo, was that the Secretary of Energy announced two days ago an independent review by the National Academy of Sciences and the National Academy of Engineering will be done. Russell Jim mentioned that the Yakima Indian Nation had also passed a resolution asking for the blueprints, design and operation mode of the N-Reactor. Mr. Bishop said copy would be sent to Council members.

Nancy Kirner was asked to update the status of the CDC Study. She said the Study is somewhat in limbo because of the restriction on funding from USDOE. The cost of staff work at the Centers for Disease Control is being borne by CDC, but the state support for their effort is not funded. Dr. Ruttenber, Project Manager for the Centers for Disease Control, did come to Richland and met with tribal members, local health district representatives and contacted various groups at the NCSL meeting. She reiterated the study will in no way be a definitive answer to the health effects from the Hanford Reservation. The Environmental Monitoring Committee met in Richland with Dr. Ruttenber and he gave them a preliminary staff evaluation. She said it was of great importance that the CDC Study continue. With reference to Representative Isaacson's remarks that the Legislature had empowered the Department of Social and Health Services to perform epidemiological studies and provide a funding mechanism, she said the funding mechanism is directly tied to the receipt of low-level radioactive waste, and the state's policy is to encourage low-level wastes to go other places than Hanford. The state is now receiving one-third of the waste that had been budgeted. Thus, the funding mechanism for epidemiological studies has been reduced by two-thirds.

In the meantime, Ms. Kirner said, the list of panel experts is being developed. She said she was still accepting nominations for people to serve on the panel and is forwarding them to Dr. Ruttenber.

Ms. Kirner said the Environmental Monitoring Committee at the special meeting in Richland recommended that the Advisory Council, as a part of the public outreach program, conduct a series of public meetings to hear citizens' concerns about health effects that might be related to Hanford. The Committee suggested these meetings be facilitated by a contract with groups with credibility, such as the League of Women Voters, American Cancer Society, or the American Lung Association in conjunction with various health districts.

Sam Reed commented it was unfortunate more publicity had not been given to the meeting in Richland with Dr. Ruttenber, as it occurred almost unnoticed in that community where supposedly those most directly affected live. He considered it an excellent meeting with an excellent opportunity for people to become informed. In his opinion, Mr. Reed saw two dangers in the actions which are taking place in regard to the Ruttenber study. He mentioned two elements: (1) a

study of historic data and its effect upon people, and (2) a consideration of epidemiological studies which should be initiated and which on an ongoing basis might predict events in the future. Knowing the past does produce some benefits, he said, but he felt there might be too much energy spent on that component and not enough attention and support needed to the important issue of what should be done from this point on in tracking effects on people.

Concerning the Committee's recommendation to hold meetings and to hear citizens' concerns about possible effects experienced as a result of Hanford, he said it would probably be impossible to look at illness and anomalies and say with any certainty they derived from Hanford exposure.

Mr. Reed continued there was a need for the people there to have their concerns heard, and from that considered need came the recommendation of the Committee. But, he said, to do that in a way that guarantees them an answer is impossible.

In response to a question about the drop in funding posed by Betty Shreve, Ms. Kirner said the waste received was one-third of the projected waste, so they are really down by two-thirds. She added that it appeared the waste is being stored in power plants. In looking at motives as to why it is being stored, she wondered if they were waiting for a challenge to the Low-Level Waste Policy Amendments Act of 1985 which allowed the waste to be decreased so drastically.

Mr. Husseman commented that the recommendation of the Environmental Monitoring Committee would tie in with the Role of the Council and how the Council could carry out its responsibility to serve as advisory to the Board. Should there be a high level of concern among the citizens, he said there needs to be a state-sponsored group that has the confidence of the people and relays the information on to the necessary scientific community. He added that there would be a need to point out clearly to those participating that anecdotal evidence is not scientific.

Pam Behring inquired if there had been any studies of dosimeters and their accuracy and uniformity in reading. Ms. Kirner said there was a national Bureau of Standards Committee program now that is certifying dosimeters and dosimetry has improved.

Phyllis Clausen wondered if Dr. Rutenber's comments had been taped, could that be used to introduce any kind of public meeting in order to address any unrealistic expectation the public might have. Ms. Kirner said there was no tape, but she felt Dr. Rutenber would be willing to make a tape specific to the subject. Ms. Clausen asked if Ms. Kirner could project at this time the income that will be available from the state for the coming fiscal year. Ms. Kirner said they had been making these projections on income for low-level waste taking the average from 56,000 to 75,000 cubic feet per month and multiplied that by \$.75, which is the DSHS share. This would not all be available to this study. The CDC Study grant proposal was \$60,000 she said.

Mr. Reed said a letter recommending these public workshops would be coming from the Environmental Monitoring Committee, and he saw no need for action by the Council today. He added this was an opportunity to structure the future, and it must be done right.

Russell Jim commented that across the country, many of the Indian world and in the non-Indian world, have been looking for health and safety to be the prime concern of the people. At the same time they talked of unity. Conversation today seemed centered around the funding and some of the concerns were the sources of funding and how barriers were being created between entities. He thought perhaps the USDQE was building and supporting some of these barriers between the ratopayers and the state of Washington funding systems. He referred to legislation being introduced stating that in lieu of a second repository either the MRS or perhaps only one repository is necessary. He thought politically that aimed directly at Hanford because of the supposed size of the Cohasset flow in the basalt formations. Insidiously there is a wedge being driven between not only the state, but between the tribes of the Northeast and the tribes of the West, which could also happen very easily between the states of the East and West. He recommended that at some point in the very near future the Chair or the Governor allow this to be known and write a recommendation to the other states disallowing any barriers or wedges to be driven between them.

Mr. Bishop suggested that a plan be developed based on the suggestion of the Environmental Monitoring Committee. He said he would instruct the staff to develop a program in a draft form for review at the next meeting, or if it is ready, it can be sent out to the subcommittees for review. Ms. Kirner agreed the Committee would work with the staff and would hope the information could be gathered before the CDC Panel meets in September. He said Mr. Reed would be the liaison between the Council and the Committee to formulate a plan. There was no objection from the members.

Phil Bereano said he supported the suggestion by Russell Jim, and thought it would be appropriate to have a statement or recommendation sent out from the Chair or the Governor. Mr. Jim reiterated his concern, noting these were political moves. He hoped the Board and the Council would recognize the problem and initiate some communication to try to alleviate the problem. Mr. Husseman suggested the Council make a recommendation to the Board, if that were their desire. Estella Leopold suggested Mr. Jim and Nancy Hovis compose a recommendation to be considered by the Council before the close of the meeting.

Mr. Husseman continued the review of the significant issues, noting no new information had been released on the final Environmental Assessment. Mr. Husseman reported that Chairman Markey of the Energy, Conservation and Power Subcommittee remarked at a public hearing that the whole process be stopped for a year, and appoint a Blue Ribbon Panel to look at the prospect of combining the program into one big nationwide search. No action was taken on his proposal, which would call for Congressional action first.



## Defense Waste DEIS Meetings

Mr. Husseman reported the series of planned state-sponsored meetings during June will be co-sponsored by the Council and the Board. He passed around a sign-up sheet, asking members to indicate which meetings they could attend.

Mr. Bishop introduced Susan Hall, representing Hall & Associates, who was the successful bidder for a contract to assist the Council with the workshops. Ms. Hall said her firm specializes in community relations for controversial projects. She said they were subcontractors to Envirosphere and helped with the last series of workshops, and as soon as the contract is signed they are ready to go on the Defense Waste DEIS workshops. She added she was also President of the Lung Association of the state of Washington.

Marta Wilder referred to some of the questions copied from the proposal made by Hall & Associates in their proposal which was made available to members. She said a flyer setting out the dates and places of the upcoming meetings had been placed on the back table for public information. As soon as the contract is signed, work will be started on publicity, visits to Editorial Boards, and other pertinent information.

Mr. Reed asked each member to read carefully the basic outline of the Hall & Associates proposal Marta will furnish them, and offer any comments or suggestions on their proposal to give notice of the meetings. Ms. Hall also emphasized the short amount of time there is left to publicize the meetings.

Mr. Bishop reported another RFP is being prepared to secure additional help in other public information areas. Mr. Husseman said the final draft of the RFP, which is much broader in scope, is almost ready. It will be a search for talent to produce VCR tapes with graphic ability and will be circulated to all members of the Council as soon as it is in final form. Comments would be solicited within a certain span of time. Marta Wilder added skills are being sought to assist with publications, with graphic, video capabilities, update and improve the slide shows, and the ability to assist in developing a major public involvement program. Other tasks would assemble information kits and assist in organizing a distribution plan, and bring in more ideas for the outreach program. Also needed would be publication support in getting new Fact Sheets and Focus Papers, special displays, special events, telephone networking, and producing the Newsletter on a more regular schedule. She added another contract is almost in place to update the mailing list.

Mr. Bishop reviewed the schedule for the workshops planned by USDOE and those the state will hold. She said it was the intention to have a staff member and either a Board or Council member at each of the USDOE meetings to read a statement that will give information on the state-planned meetings. Mr. Bishop encouraged each member to participate in his own area, and any or all others if they wished to attend.

Russell Jim said at a meeting of the contractors for the Yakima Indian Nation last week in Minnesota it was recommended that representatives be sent to these workshops to see if the U.S. Department of Energy would accept technical people to ask some very technical questions. He wondered if the Board planned to do the same. Mr. Bishop said that was the purpose of the USDOE presentation yesterday. He understood that the House and Senate Energy & Utilities committees planned further discussions of the Defense Waste DEIS which would provide additional opportunities for the people to ask questions.

Mr. Bishop announced that the Pacific Northwest Forum, a group of 27 citizens appointed by the USDOE as a public sounding group for the Defense Waste DEIS, has planned three meetings. One was held in Spokane. The second will be in Portland on May 27, with the third one to be held in Seattle on June 12. A list of members of the Forum was distributed to the Council. Mr. Bishop said the state was unaware of the first meeting, but when he learned of the plans he sent a memorandum to each of the Forum members outlining the state plans and purpose. He also requested that a representative of the state, either he, Terry Husceman, or others be on their agenda when they meet in Seattle.

#### Subcommittee Reports

Public Involvement. Mr. Reed suggested that in the future the Committee reports be handled with written reports. His first action item was the need to find more time to conduct Council business and for the public to be heard. On behalf of the Committee he proposed the Council set aside Thursday evenings before the regular Council meetings to provide a better opportunity for public input and for the Council to become better acquainted with each other and the staff. He suggested there be no particular agenda and that no action be taken at the evening meetings.

Mr. Reed moved that the Council resolve to give an informal meeting on Thursday evenings a try. Motion was seconded.

Betty Shreve suggested amending Mr. Reed's motion to include 9:00 a.m. as a starting hour for the regular Council meetings. This was agreed.

The question was called and the motion carried unanimously.

Because of the state Defense Waste DEIS meeting scheduled in Spokane the evening of June 19, there will be no evening Council meeting on that date.

Mr. Reed continued that a policy on use of the slide shows was needed. He said his Committee will propose a policy for the Council to consider at the next meeting.

Mr. Reed read the questions the Committee proposes to use in the telephone survey. He asked the members to consider them carefully

for discussion at a later time. For reference he read: Questions 4, 5, 6, 7, 8, 12, 13, 14, 15, 16, 17, 18, 21, 22, 23, and 24. He said should the members have additional questions, he would like to receive them, and he asked that input come from Committee Chairs.

Socioeconomic. Phil Bereano reported that the letters to the various engineering societies have been sent. Replies have begun to come in expressing considerable interest in the state's program. He said Estella Leopold and David Tarnas are making a presentation in Vancouver at a meeting of the American Association for the Advancement of Science, Pacific Division. Galley copies of the program were distributed.

Local Government. Valoria Loveland said the Committee met yesterday afternoon following the USDOE presentation. They approved a survey that will be printed in the Association of Cities Newsletter. They agreed on a particular mailing list for the educators in the state of Washington and have narrowed it down to social studies and the science departments in the secondary level of education, and another group called Friends of Science and Friends of Social Studies in the private sector. The mailing list will be streamlined and narrowed into those educators where it is believed the information will be read and used. There is also the possibility of working with individuals in those departments on some prepared curriculum regarding nuclear issues.

#### Recommendation to the Board

Nancy Hovis read the recommendation prepared by her and Russell Jim for consideration by the Council:

"WHEREAS, the political processes behind siting a nuclear waste repository are driving a wedge between the first-round states and tribes and second-round states and tribes;

NOW THEREFORE BE IT RESOLVED, that the Nuclear Waste Advisory Council:

Recommends to the Nuclear Waste Board that it adopt a policy to avert such a division and that the appropriate officials and lawmakers make written communications reflecting the policy."

It was moved and seconded that the recommendation to the Board be approved. The motion was carried unanimously.

#### Funding for Intervenor

Phil Bereano said this item of business related to the discussions about ways of assuring increased outreach to the citizens and citizens' groups and increased input by such groups. He felt one of the major reasons why citizens' groups are not participating in technical, complex programs is related to their fiscal imbalance. He said the Nuclear Waste Policy Act recognizes the need and the

advantages of having vigorous public participation. Since the Council has the prime responsibility for public involvement, it should address directly the fact that certain views, positions, and types of participation are stymied from full involvement in the program because of the fiscal imbalance.

A number of suggestions have been received and he suggested the Council give thought to the idea of perhaps contracting with interest groups, such as the state of Texas has done. He also suggested advice be given the Council from the Attorney General's Office as to what the legal contours might be that would either allow or make difficult the desires of the Council in this regard.

Mr. Bereano said WashPIRG had prepared a four-page handout entitled "Enhancing Opportunity for Citizen Group Involvement", directly addressing the issue, which he distributed.

Tom Buchanan of Greenpeace distributed a memorandum to the Council on citizen group involvement.

Mr. Bishop remarked he and Charlie Roe met with Mr. Bereano last Wednesday in an attempt to shape some ideas and thought there were ways to improve the method for assisting financially those groups and interested parties to present their views to the Council. He asked Tom Buchanan to express his ideas to the Council.

Tom Buchanan of Greenpeace, Hanford Project Coordinator, said as a public interest organization they are badly hampered by a lack of funds. They would be very interested if there were processes through the Council and the Board for them to receive monies to assist them in producing Fact Sheets, educational materials, etc. to be used in their presentations on the Defense Waste DEIS.

Mr. Buchanan said one of the things that they have helped fund, which is ongoing, is the Search Technical Services document called "The Hanford Reach Project Report" published the latter part of April. It characterizes groundwater seepage and shows a channel on the Hanford Site which goes into the Columbia at an area along the river of about 800 feet. The actual quantity of contaminated water, which has been measured at the Columbia by Search Technical Services, is double the quantity Battelle has been predicting in their modeling--not in their actual direct measurements--for about a six-mile stretch. He said they found twice the contaminated water channel flow in an 800-foot stretch that Battelle for the last twenty years has been predicting for a six-mile areas along the Columbia. They are now taking this study further downstream to see if there is another channel that seems to have diverged. Mr. Buchanan said this document and the research that has been a part of it has been characterized as "gold-plated" by Dr. Leonard Palmer of Portland State University, who is a member of the Citizens Forum.

The research and publication of the document cost somewhere between \$3,000 to \$4,000, Mr. Buchanan said. He compared this to Battelle's budget for monitoring and environmental protection at the site of

about \$5 million per year. He said he thought it would be an important move on the part of the Advisory Council to begin funding what they call education and research activities.

Mr. Buchanan said there are a number of groups, such as HEAL, Wash-PIRG, and Physicians for Social Responsibility (PSR), who have budgetary operations. They are established organizations which have been working in the public interest field in relation to Hanford for at least the last two or three years. He said his group has credibility in the community and in handling funds, and they invited any support the Council might be able to give.

Mr. Bereano added that no one is talking about funding political or propaganda work of any particular group or interest, which would be totally inappropriate and probably illegal. He said he was speaking about technical assistance by citizen groups to analyze documents, do independent research, or participate in outreach activities. He suggested Council members in their own communities let the public know there is some interest, and put together some ideas so the whole Council could learn the needs such groups would define for themselves.

Mr. Worthington said he would like to know what the criteria would be for groups looking for funding, and what would be the selection mechanism. Mr. Bereano said he had given this general thought, but a lot would depend upon the reaction of the legal office, and there ought to be an economic criterion. He felt the lack of access to resources diminishes the full range of public participation. The more opinions and ideas received the better the decisions will be, and the commitment to a democratic process will be served, he said.

In response to a query by Nancy Hovis, Mr. Roe said at the request of the Chair he is in the process of drafting criteria, looking at the constitutional and statutory powers of the Board, the Council, and the Department of Ecology, and the limitations on the funds that are provided by USDOE.

#### Oregon Advisory Committee Report

Phyllis Clausen reported she attended the Oregon Advisory Committee meeting as liaison between the Washington Advisory Council and Oregon. The Oregon Department of Energy Advisory Committee will be holding joint meetings with the USDOE on the Defense Waste DEIS. The first one will be at Wilsonville at the Holiday Inn on May 27. The second will be held in Pendleton on May 28. Both will run from 6:30 p.m. until 10:00 p.m.

The Washington Advisory Council will hold a joint meeting with the Oregon Advisory Committee on July 17 from 9:30 to 1 p.m., at the Thunderbird Inn at the Quay in Vancouver. Ms. Clausen said she would like agenda items for both of the Councils to pursue. Several suggestions were made at the meeting. One was the results of the state and USDOE meeting should be reported and evaluated. It was also suggested discussion could be held on current events involving

the N-Reactor. Other discussion would be a review of current items supplied by the staffs. She said it would be helpful to have a summary of the two bodies' structures, and the differences and similarities in their organizations.

Ms. Clausen asked for the advice of the Council on appointing one member to work with Mary Lou Blazek in Oregon.

Mary Lou Blazek added her group is confused about all the committees and subcommittees, the Council and Board membership, and the composition of the Citizens Forum. She said they asked specifically if the format and membership of those committees could be discussed at the joint meeting. Mr. Bishop asked Phyllis Clausen to continue in the role of liaison with the Oregon Advisory Committee. She agreed to do this and asked for input from the Council members.

Mary Lou Blazek said Russell Jim had advised her that Congressman Jim Weaver is conducting a hearing in Portland next Monday at 9 a.m. on the N-Reactor. She offered to check the location and give that information to the Office on Monday.

Mr. Reed commented further it was important to convey at all the Defense Waste DEIS meetings that the state's position is that the defense waste and repository are a joined issue. Mr. Worthington agreed and said the issues cannot be separated in light of the President's decision to commingle the wastes. Mr. Bereano thought this could also be conveyed by the individual members of the Council, speaking as citizens.

Mr. Worthington called attention to the sign-up sheet at the door, and said he would like to see all members of the public who attend the meetings sign the sheet.

#### Public Comment

Representative Ray Isaacson comments as follows:

"I did review the paper that was presented to you this morning, that Tom Buchanan presented to you, and I would say that it is a very interesting piece of work. It is done with a minimum amount of effort and cost and represents, I would call it, a hypothesis, and perhaps it does need to have further study and exploration. The things I find missing from it, however, are considerations of what I would call the isopotential lines of the water table, showing which direction water flows on the Hanford project. Previous work does not point to that channel as existing as it has been proposed and hypothesized. Further, over the many years of studying the water table contamination and how it moves--particularly the nitrate, which is soluble, moves with water and the tritium which also moves with the water. Those elements, those contaminants, move down gradient from their source and that is how it was found to have intercepted the river in certain areas. Additional wells were drilled in those areas. None of that work has been used in the assessment of

the hypothesis and thus the failure to consider the trace contaminants that have been mapped over the years of the Hanford project does not support that hypothesis, nor do the isopotential lines. Water has to flow downhill, and if you measure how the elevations of the water table drop off as it heads toward the river, and if you map all of that out, typically it points to the channels where the drainage occurs because that is downhill, if you will. Those were the shortcomings in the study."

"I have to appreciate that Battelle has not taken a public position on it. I am not speaking for Battelle, nor am I speaking for the DOE, nor Rockwell. I am speaking for myself--I am very familiar with that issue, and I think if you were to study the document ERDA 1538, which presents a lot of technical background on which the water table studies have been based, that data is in that document. It will show you where the paleochannels are in the Ringold formation, that have been filled with the Pasco gravels, and that would give you a lot of information."

"There have been over 4,000 wells drilled on the Hanford project. Many of those were directed toward the monitoring of the water table, and the movement of the contaminants is heading toward the river, so that those water tables and those contaminants could be managed effectively and efficiently. If there was a problem that had to be addressed, there were also studies made to determine how that water could be intercepted and pumped, if you will, to avoid its reaching the river if there was a necessity to do that. That information is in document ERDA 1538 and is available to the public. It was published in December, 1975."

Betty Shreve inquired about the background of Representative Isaacson and he detailed the following:

Isaacson Background:

Washington State Representative (8th District)

Bachelor/Science in Chemical Engineering

Additional studies in mathematics and physics at the Joint Center for Graduate Studies in Richland

Worked at the Hanford Project since 1951, except for 3 years spent back East

Wrote the first Position Guide for an Environmental Engineer in 1965 when one was not to be found. No college nor University in the United States had a degree in Environmental Engineering at that time.

Went to Connecticut with GE when they left the Hanford site.

Returned to Richland in 1968 to work for Atlantic Richfield Hanford Company and picked up where left off with GE.

Directed much of the research having to do with the interaction of nuclear waste in the environment and his group, advance process development later became advance technology development, and later physical and life sciences technology.

In those positions directed the work that Battelle did with respect to modeling the water table under which the variable thickness transport model, VTT Model, was alluded to in the report. Oversaw that work.

1972 hired the first hydrologist in the separations area, Dr. Maurice Veatch, who was teaching hydrology at the University of Nebraska and came to Hanford as their hydrologist on this study and on these programs.

Directed characterization of the waste sites. Developed the equations which predict the frequency with which one should return to monitor the dry wells around the high-level waste tanks.

Recently retired.

Estella Leopold recalled the presentation to the Board by William Meyer of the U.S. Geological Survey Hydrology Office, which provides information on the amount and flow direction of groundwater in the basalts and interbeds surrounding the repository site. She said hydrologists, including federal and NRC, have problems with understanding the direction of the water flow and with the water chemistry. She said it pointed to the fact that water does not flow down hill under the Hanford site, and there is no relevant data yet, and it will take four more years of development of the hydrologic data base before the exploratory shaft can be drilled. She added it is very complex.

Representative Isaacson said it was complex, but they are discussing two different systems: the confined aquifers alluded to by Mr. Meyer in his reviews, and the case of the unconfined water table that underlies with open porous sediments, the Hanford region. With respect to the issues Mr. Meyer raised, there is an oversight group that is reviewing that work now and helping to direct that work. With respect to water flowing down hill, he said, if it's an unconfined system, it flows down hill. In a confined system it will flow in the direction of the least hydrostatic head, thus it flows down a gradient, regardless of the system, going from a high pressure to a low pressure.

Estella Leopold said where Mr. Meyer's points would be relevant is that if there is an artesian system under the Columbia River at depth moving upward it could bypass right through into the levels being discussed and raise contaminants toward the end of the river. Representative Isaacson said that was true and is why it is important to know the age of the water and he thought those studies were directed to that to see at what rate those deeper aquifers are flowing. He said the springs near the Gable Pond reflect that and there



is much that is known about those systems. In studies by other members of the Geologic Survey who did the original deep hydrological studies there, Mr. Al Lasella and Mr. Gene Doty, their analysis pointed out that the water was flowing from upper aquifers to the lower aquifers. Based on their studies and those of Jim Crosby III of Washington State University, who did the radio-iodine injection studies, they found the same thing. Thus, there are two other independent studies, apart from Battelle and Rockwell or Atlantic Richfield, which support the concern that there may be a downward flow of water within the Hanford region. The effluent point is uncertain, and Representative Isaacson thought this was the key issue that is being studied and overviewed by the NRC, USDOE, and others in the current effort.

With respect to disturbing by drilling, Representative Isaacson said he appreciated the sentiment there, but if reverse circulation drilling were used and heavy, dense drilling muds, the flow into confined aquifers can be stopped to minimize the influence of drilling on the existing water table. Monitoring with monitoring wells can also be done to determine whether or not there is an impact on that.

Furthermore, he said this could be limited to the upper confined aquifer so that the effect could be measured before getting into the zones of interest. If there were a negative impact of concern, controlling of drilling can be established so if there is going to be an interaction it can be stopped before getting into the zones of interest. He said this needs to be looked at with an open mind and technical understanding.

There being no further business, the meeting was adjourned.