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MINUTES OF NUCLEAR WASTE BOARD MEETING
March 15, 1985

1:30 p.m.
EFSEC Hearings Room
Building #1 - Rowesix
4224 Sixth Avenue S.E.
Lacey, Washington 98504

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Board Members Present:

Warren A. Bishop, Chair
Senator Sam Guess
Richard H. Watson
Ray Lasmanis, DNR Designee
Dr. Royston H. Filby, Water Research Center Designee
Donald Provost, Ecology Designee
Dr. John Beare, DSHS Designee

Also Present:

Barry Bede, representing Senator Max Benitz and Representative Shirley Hankins
Lora Murphy, Department of Emergency Management

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

The minutes of the meeting on January 18 and February 15, 1985 were approved as published.

Public Involvement Working Group

Anita Monoian, Chair of the Working Group, thanked the Board members for their participation in the public workshops. She commented that almost every member participated in at least one of the workshops, and there was also good participation from the Advisory Council.

Mr. Bishop observed, at this point, that due to the schedule of the Legislature, few Legislative members of the Board could attend the meeting. He said they had been kept advised of current events.

Ms. Monoian continued the two goals of the workshops were to inform the public about the draft Environmental Assessment (EA) and the state's review of the program, and to obtain public comment about the Environmental Assessment for consideration by the Nuclear Waste Board in developing its comments to the U.S. Department of Energy. She said the Working Group felt that both of these goals had been successfully met. As this set of workshops

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was the first major community outreach activity of the state review program, Ms. Monoian said the information presented was designed to introduce the public to the Board's role, the review activities that are underway, and the informational resources that are available to the public. She asked Marta Wilder, Public Information Officer of the Office, to report briefly on how they felt that was accomplished and plans for the future.

Ms. Wilder referred to the workshop response sent to the Board. She said comments were summarized into eleven categories dealing with policy, transportation, environment, groundwater, site selection, community relations, geology, socio-economics, health and safety, trust, and others. On individual questionnaires the top five issues by number of times mentioned were: policy, health and safety, transportation, groundwater, and environment. Small group discussion top five issues were: policy, site selection, health and safety, transportation, and environment. Ms. Wilder said over 400 people have requested the summary of the workshops and any comments on the draft were requested as soon as possible in order to expedite the mailing of the summaries.

Mr. Bishop said this summary of the workshops would become a part of the Appendices to be attached to the comments from the Board. Further comments will be added in the subsequent material to be filed with USDOE, he said.

Ms. Monoian said the next meeting of the Public Involvement Working Group will be held at Sea-Tac on Friday, March 22. They will look to the future and formulate plans for the rest of the fiscal year.

Mr. Bishop expressed the appreciation of the Board to Ms. Monoian, the staff, and the League of Women Voters for an outstanding job with the workshops. He said he hoped this project would stimulate an interest in a statewide project on the issue of high-level nuclear waste on the part of the League.

Economic Risk Subcommittee

Mr. Eschels, Chair of the Subcommittee, referred to the Report of the Subcommittee dated March 15, 1985, distributed to the Board. He said in their several meetings, the Committee found there was concern among the members that there be an analysis of what is at risk and how much risk there is actually called for in the siting guidelines. He said they believe that having that kind of information would be a valuable tool in deciding which sites ought to be nominated. However, he said, they also found that the treatment of this topic within the draft EA is not adequate. There is very little even mentioned, he said, and the actual analysis has not been done. Since this has been a topic of continuing dialogue between the Board and the USDOE for over a year, the Committee recommended that its finding that it is required and would provide valuable information be reflected in the Board's comments on the

draft EA. He said, furthermore, the Committee believed such an analysis can be done. He thanked the Joint Committee on Science and Technology for their assistance in looking at this question. He also thanked the other members of the Subcommittee, Representative Dick Nelson and Ray Lasmanis, as well as Jerry Parker of the staff, for their work on the report. He continued the Committee thought the methodology ought to be spelled out by the Board, perhaps through the Subcommittee, and the Board should request funding from USDOE either to review the work of the Department, or to examine independently the question of economic damage.

The last recommendation, Mr. Eschels said, was that the Board refer the issue to its Legal Counsel, and ask that it be examined for reporting to the Board whether the apparent failure to live up to the guidelines should be a subject for litigation. Second, and more importantly, he said, they should determine what means exist to compel such an analysis be done, not only on the Hanford site, but on all of the sites under consideration.

Mr. Eschels added that after their report was typed another piece of information came to their attention supporting the recommendation of the Subcommittee. That was, he said, that the question of "risk" from a statistical standpoint be treated separately from the resources that are at risk. That was found in the preamble to the siting guidelines. He distributed a memorandum from Jerry Parker quoting that happens to be relevant, specifically in the comments on water, which is a key concern not only to our state but also others that border the Columbia River.

Mr. Bishop expressed his appreciation to Mr. Eschels for assuming the responsibility of chairing this Subcommittee and furnishing a report of recommendations on such short notice to be reflected in the Board's response on the draft EA.

Mr. Roe commented it was clearly appropriate and almost mandatory to include this issue in the Board's response to the draft EA. He said they would do the second evaluation as to how it relates to the siting guidelines litigation.

Litigation Report

Mr. Roe recalled the five actions that were taken by the Board at the March 1 meeting. The three not directly related to litigation were: (1) funding and litigation in terms of the federal government providing funds to the state to support litigation, embodied in a letter written by the Chairman to the Manager of the Richland Office of the USDOE; (2) of federal funding of defense wastes analysis embodied in a letter from Governor Gardner to Secretary of Energy Herrington; and (3) water rights included in a similar type letter went from the Governor to the Secretary of Energy.

The other two items were action items. Concerning the major issue, he said the Office of the Attorney General, on behalf of the Board, did initiate litigation challenging the validity of the

USDOE program guidelines. A petition was filed with the United States Court of Appeals in San Francisco on March 7. He said some discussions and inquiries from other states had been received, and he was notified yesterday by the Attorney General's Office in Colorado that they will probably move to intervene in the litigation initiated by Washington State. Other states, he said, had discussed this with him since this litigation was filed.

Concerning the case filed by the Environmental Policy Institute concerning the guidelines, he said, on the 12th of this month, there was a telephone conference among those parties, to be followed by further conferences. He thought it was likely the state's case will be brought into the context of that case at least in terms of raising similar issues. He said he had not talked to the Court, but the state will probably take such steps to try to accomplish that in order to have an expeditious, early review.

Senator Guess wondered if there were sufficient funds to prosecute the case. Mr. Roe said the issues of federal funding was the subject of Mr. Bishops's letter to Mike Lawrence at Richland. Mr. Bishop said the Board was asking for a formal clarification of the provision in the grant award, stating that none of the funds could be used for litigation. Mr. Stevens commented there is no category for "litigation" in the existing grant, and that matter will have be be discussed, and Mr. Bishop said this would be a very important policy issue for the Board.

Mr. Bishop asked about the course of the action now that the guidelines case has been filed. Mr. Roe explained there will be two phases. First, there is no record from below as is usual in a normal trial. There must be a decision about the documents that will be before the Court, primarily documents that were developed in the course of the USDOE's processing of its whole guidelines preparation project. That, he said, will ultimately be submitted to the Court. Portions of that work have already been done in the EPI case, as they have already developed a record. His office plans to review that and add any appropriate supplements. Given two months for this work, a briefing schedule will be established, he said, and at that time the state will file an opening brief, setting forth the state's legal arguments on the merits along the lines of discussion last week, plus any others that may be developed as they proceed. Following the opening brief, there will be a responding brief, and the state is then entitled to a reply. The Court then sets the case for oral argument. The first step now, Mr. Roe said, is to file a docketing statement, a draft of which is already prepared. This will be filed in ten days from the date of filing the litigation. His office will be in contact with the attorneys in the EPI case, both for the Justice Department and for the EPI, to learn the status of what they have included in their "record".

The next item was the Amicus Curiae brief in the Nevada case, copies of which were distributed to the Board. Mr. Roe said immediately after the Board action of two weeks ago, a request for extension of time was filed. The extension was granted and the Amicus was filed last Tuesday, March 12, in support of the State of Nevada's attempt to set aside restrictions or limitations in the course of ruling on some funding. This denial of funding related to primary data-collecting activities and physical work activities involved in the Nevada siting program to be conducted by the State of Nevada.

Mr. Roe asked Mr. Mal Murphy, Special Deputy Attorney General for the State of Nevada, who was present at the meeting, if any schedule had been set. Mr. Murphy responded the state of Washington's taking an extra week had resulted in a one-week extension of the Justice Department's time. They now have 30 days from the 12th to file their brief, he said, Nevada then has 14 days for their reply, and then will move for an expedited hearing. He thought the Justice Department would support that motion.

Senator Guess asked what was the normal period of time between filing of the briefs and the oral arguments. Mr. Murphy said it depended upon the nature of the case. He said the 9th Circuit Court was one of the slower circuits in the country, and all federal courts give priority to criminal cases, and certain other cases which Congress has required. It could be a year to eighteen months before the case is even argued, and another year after that before it is decided, he said. Mr. Roe noted that in a recent case dealing with hazardous waste challenging EPA actions in the Court of Appeals, the case was filed, briefed, and decided within a year with no request for an expeditious hearing.

With regard to the Texas case challenging the site selection discussed previously, Mr. Roe said a motion to dismiss had been filed by the United States.

In the NRDC v. EPA case, asking the federal Court in the District of Columbia to direct the EPA to set standards, he said there is no further update.

Senator Guess asked what was the disposition of the well-logging issue for WSU. Mr. Roe reported he had checked on this and as he understood the record, there were negotiations between the state and the federal government. The ultimate response by the Department of Energy was that if the Hanford site is chosen as one of the three for final site characterization, they would then enter into a contract with Washington State University to carry out the well-logging activities. Dr. Brewer stated it was his understanding a proposal has been submitted by WSU, and has not yet been acted upon. He asked Mr. Tom Tinsley of USDOE if he had any comment, and Mr. Tinsley said he understood the funds have been transferred to Rockwell to pursue that contract. He said they had

reviewed the proposal by WSU and implementation of the contract would begin upon the finalization of the Environmental Assessment, if Hanford is selected as one of the sites for characterization.

Senator Guess asked what standing WSU had, and why did they decide to do the well-logging. Dr. Filby said the WSU hydrology group has a statewide and national reputation under the recent Dr. Jim Crosby, who initiated this proposal. His successor, Dr. Eileen Proeter also has a national reputation, and that the group in the state is well equipped to do this work. Dr. Brewer added the proposal came to the attention of the Office when Dr. Crosby's proposal was sent forward and the Board was asked for its support. That became a request on the part of the Office to be funded to manage that project.

Legislative Report

Mr. Stevens reported briefly on the status of the following bills:

SSB 3468 - The bill would direct the Nuclear Waste Board to carry out research and review of USDOE siting activity. It would direct the Nuclear Waste Board to monitor and evaluate federal research as the proposed site is investigated, with quarterly report to the Legislature.

SSB 3799 - The bill would authorize statewide baseline monitoring with regard to radiation. Dr. Beare said this bill was a composite of several ideas that were presented to the Legislature. This bill, he said, does provide a very substantial method of funding the kinds of activities his Department feels it should be involved in--not only baseline monitoring, but a continuing monitoring program, beginning first at Hanford, irrespective of a waste repository site. It would also allow the Department to develop the necessary training, exercising, and planning for other radiation incident emergencies in the state, and would provide a funding mechanism whereby the Department could carry out those activities. The funding activity, he said, is directly geared to the waste generators paying an additional fee to cover all the activities related thereto.

SSB 3808 - This bill adds a specific Legislative charge to carry out a study of the impact of a repository development on state agencies and on local governments. The Board would have to complete the study before any public hearings were held on any proposed agreement or modification of an agreement the Board might want to undertake. The only pending one is the proposed C&C negotiated draft agreement, so it would mean this study would have to be completed prior to taking the

next step. Mr. Stevens said the context within which the bill was proposed is parallel with some of the projected activities envisioned for Board observation. Under the Act, he said, the analysis of proposed impacts from the development of a repository need to be examined and the state does have the authority to prepare that kind of a document. This process will probably be started within the next few months, and may well take some time, he said. The question is raised whether this bill may impinge on another activity the Board may be interested in pursuing.

HB 55 - This bill would provide additional responsibility for the Nuclear Waste Board to undertake a transportation risk study, set out in some detail. This coincides with a number of items that have been identified for an analysis of transportation and its various effects on the proposed development of a repository. This bill has an emergency clause, so if it were to become law, that would be one of the next steps for the Board to carry out. In response to a question, Mr. Stevens said there was no timeframe, but the Board would have to set a completion date for the study to coincide with the need to establish state and local routing alternatives. Mr. Stevens further said he recalled no funding specifications, but in SSB 3808 the Board is directed to apply to the federal government for funds to support Board activities.

HB 56 - This bill would add to the Nuclear Waste Board's responsibilities in the area of low-level waste management. There is a provision in the Act that the Board monitor and look at the activities that are carried on, particularly as they relate to the Interstate Compact. The Office does report, through the Semi-Annual Report and on other occasions. The low-level compact responsibilities are conducted in another section of the Department of Ecology and through the Radiation Control Agency of the Department of Social and Health Services. The thrust of this bill would bring the Board more directly into the low-level area as it would have the responsibility for "analyzing policy recommendations and authorizing major policy actions proposed by the Department relative to low-level waste".

In discussion Mr. Stevens pointed out the Department of Ecology currently has the responsibility for the lease of the land at Hanford used for a commercial low-level disposal site and administering the Northwest Interstate Compact. Senator Guess asked who now supervises the deposition of the low-level material, and Dr. Beare responded that it is the Department of Social and Health Services through its licensing

responsibility. He was asked how many people were on staff at Hanford and replied there are two full-time people. Wastes were accepted 24 hours a day, he said, but the basic work is done in an 8-hour period. Senator Guess asked Dr. Beare if he thought the coverage was sufficient, and Dr. Beare said he felt it was, particularly as it relates to the public health concerns.

In further discussion of the proposed legislation, Senator Guess referred back to Substitute Senate Bill 3799 and his visit to the Hanford site to observe the monitoring activities of USDOE. He was concerned about the cost of having enough state staff to monitor as extensively as USDOE. He said that was the thrust of the Senate bill. Dr. Beare referred to Substitute House Bill 3, where a fiscal note was prepared suggesting employment of five additional staff for approximately $475,000 per biennium for that kind of activity. That would be to do a quality assurance program with some of their own monitoring stations, plus monitoring or reviewing of USDOE material and conducting periodic reviews with USDOE. Senator Guess asked if House Bill 3 envisioned the state could monitor the site without USDOE approval, and Dr. Beare said he believes HB 3 does remove the requirement that concurrence be obtained from the federal government, which is currently within the law. At the same time, he said, Senate Bill 3799 does essentially the same thing, only it is broader than just the Hanford site. Dr. Beare added Senate Bill 3799 has a couple of other provisions, as does Substitute House Bill 3, and one is to pursue federal funding for all of these activities related as an offset for whatever the Legislature may appropriate. In addition, if the federal government were to deny funding, the state is to investigate the possibility of legal action against the federal government for not funding those activities directly related to that particular operation.

SSHB 3 - This bill discussed above.

HB 544 - This bill requires that any federal funds that were applied for by the Board would go directly to the Board, and not be placed in the State Treasury.

Mr. Stevens said there are other bills being considered that relate to radioactive waste, and the weekly Legislative Update from the Office will continue to follow their progress. He said should additional information be requested, the Office would be pleased to provide it.

Environmental Assessment Review

Mr. Bishop acknowledged the time and effort expended on the review process of the draft Environmental Assessment by the Board members, the staff, and the consultants. He observed that the intent has been to prepare a response containing all of the elements consisting of the policy elements, the main technical report and

appended public comments. He said since both the Governor and the Board had received assurance that comments submitted following the March 20 cut off date would be considered, further comments would be submitted to expand, strengthen, and augment the original submission. This would include any other public comments that may be received after March 20. With two more Board meetings upcoming, he said, discussion would continue on the draft EA before the final comments are forwarded.

Mr. Bishop referred to the Summary of Public Workshops previously sent to the Board and stated it will be appended to the submitted comments. Also, Mr. Bishop said, copies of this report will be sent to the 400 people who attended the workshops and requested a copy.

Mr. Bishop continued by stating it was hoped this original submittal would be complete in all of its elements and authorized for transmittal at this meeting.

Mr. Stevens said in checking with all of the other states involved and the Indian Tribes, he learned they are submitting their comments in the same fashion as Washington. There is an expectation they will have material in by the end of the formal comment period, but anticipate other comments will be made within the next 30 to 60 days.

A draft Letter of Transmittal to Ben Rusche, Director of the Office of Civilian Radioactive Waste Management, to be signed by Warren Bishop, was presented to the Board. The letter indicates comments being sent are preliminary and will be augmented along with a brief description of how the comments are presented. Also before the Board for consideration was a statement overview with a brief description of issues, technical policy, general and procedural. The main body of the comments is an Executive Summary and the technical report developed by Envirosphere. A series of appendices will be included, consisting of testimony presented by the Chairman at the USDOE Environmental Assessment hearing, comments by individual members of the Nuclear Waste Board, comments of state agencies and universities, an analysis of the methods used to rank potential sites (a study sponsored by the Joint Legislative Committee on Science & Technology), the Summary of the Public Workshops sponsored by the Board and Council, and a number of other letters and comments on the Environmental Assessment.

Mr. Lasmanis, State Geologist, who serves as a Board member, wanted to be assured his comments submitted would be considered by USDOE on their own merits, and not just as backup to the comments of the Board.

Mr. Stevens said the staff expectation is that any of the individual comments would be fully recognized and considered by the Department. Mr. Bishop suggested the possibility of highlighting the comments received from individual members of the Board as one way to assure due consideration. Dr. Beare suggested that in the

Letter of Transmittal the wording would convey that comments by state agencies, universities, or any attached, should be considered independent from the Board's overview.

Dr. Filby noted that missing from the Appendices was the material to be sent from the University of Washington. He said the Water Research Center group at the University did plan to submit comments on the draft EA, but to-date no response had been received. Mr. Bishop suggested this could be pursued and David Tarnas of the University of Washington was asked if he could enlighten the Board. Mr. Tarnas said it was his understanding there were some individuals who were working on a review of the draft EA, but he did not know the status and would inquire when he returned to Seattle. Mr. Stevens said in order for them to be included with the package to be sent March 19, the Office would have to have them on Monday. Otherwise, the best advantage would be to send them directly to USDOE with copies to the Office. Dr. Filby said he would also check on these proposed comments.

Curt Eschels offered his congratulations to Dr. Filby and Dean Nyman on their comments. He said he noted the quality and depth and the number of departments at Washington State University that had participated in this valuable exercise.

Mr. Stevens asked for formal authorization to submit this package, with the request that any additional items or reflections be given to the Office no later than Monday noon.

Mr. Provost referred to the "White Report" which has been widely publicized. He said he would like to have a USDOE response to that document, would like to have it discussed, and wondered if it should be included as a part of the state's response. Senator Guess suggested that, in his view, the report did not compare with the study made by Shannon & Wilson. He said there was little he could give credence to in the "White Report". Dr. Filby stated he would like clarification on that report too, as it is called the "White Report", but the report he read was not by Dr. White. He said it was a statement report by someone else and there were appended to it statements by Dr. White. He thought the document should be examined very carefully before any decisions are made on it. He added he personally would not like to recommend it at his time.

Dr. Brewer added there was a report published by the "Health and Energy Institute" and the appendix was a paper written by Don White of the USGS in 1983 while he was serving as a committee member for the National Academy of Sciences. Dr. Brewer said in his opinion the Health and Energy Report is non-professional, and the Board should not be associated with it. Dr. White's report, he said, is a professional paper, and he thought that is what has attracted the attention of the geotechnical community. Senator Guess expressed his displeasure at all of the publicity given to the White report, particularly by the Wall Street Journal.

Mr. Watson moved that the Board authorize the Office to transmit the comments on the draft Environmental Assessment to the U.S. Department of Energy. The motion was seconded and carried unanimously.

Mr. Stevens assured the Board the final submission, as he outlined, will be made available for each member as soon as the necessary copying can be accomplished.

A draft Resolution by the Washington State Nuclear Waste Board, drafted by Senator Guess was distributed. Senator Guess explained the content and the purpose with the understanding the Board would study it and consider it at a later meeting. Senator Guess said his concern has grown over the last month and he felt convinced that the deep-level geologic repository would not be the best way to store the most valuable minerals that are in the spent-fuel rods and the military wastes. He thought it would be a loss to the future generations to deny the use and the value of the rare earth metals. He cited an illustration where a new ceramic using two of the rare metals has been developed and used in making the most sophisticated cutting tools ever made. These tools, he said, would last ten times better than the very best metals, even better than diamond. This could revolutionize the tooling process and the machine manufacturers in America. He felt this should be recognized and this material should be stored in a monitored retrievable site and this national treasure should not be lost. He cited other examples for use of these rare metals and hoped the Board would consider seriously this Resolution. He mentioned an MRS Report is scheduled to be issued by the Office of Civilian Waste Management in June of 1985, and it might be well to wait until that time to perfect the Resolution.

Senator Guess expressed his appreciation to David Stevens for serving on the Advisory Panel on Alternative Means of Financing and Managing Nuclear Waste Facilities, which was chaired by Diarmuid F. O'Scannlain. He said he found the draft Final Report extremely interesting and was impressed by the work of this Panel. He said he was delighted to read some of their recommendations, and reading that report prompted him to draft the Resolution presented at the meeting. He commended Mr. Stevens for his contribution to that Panel.

Senator Guess added that because of the concern about the transportation of high-level nuclear wastes in his district, he plans to submit as part of the Omnibus Bill a request for legislative study of the bypass of the Interstate Highway around Spokane, Washington, to go back to the original 1955 alignment, which goes to the south of the city and down Latah Creek and back up to the airport. He said he hoped for more positive press in the future.

AM/FM Report

Mr. Stevens said the National Advisory Panel on Alternative Means of Financing and Managing Radioactive Waste Facilities grew out of a provision in the Nuclear Waste Policy Act, Section 303, which directed the Secretary of Energy to carry out a study of alternative means of organizing and financing the national radioactive waste Management program. Rising out of lengthy debate in Congress over several years came the question of final disposal and the method of financing and organizing. The financing was a part of the Nuclear Waste Policy Act with a one mill fee on nuclear power generation, but Congress wanted to determine if there were alternatives. The management responsibility was given to the Department of Energy through the creation of the Office of Civilian Radioactive Waste Management. This Office was given a Presidential appointee as Director, who reports directly to the Secretary of Energy. The Panel was created to review organization alternatives including consideration of the possibility of turning the program over to a private corporation.

The Act passed in 1982, signed by the President in January of 1983, and the Panel was appointed in December of 1983. The first meeting of the Panel occurred in January, 1984, and meetings were held on a monthly basis until November of 1984. At that time the draft report was given to the Secretary of Energy. Mr. Stevens said because of the change of the Secretary of Energy the issuance of the final report has been held up. He said he was not sure when it would go to Congress, but when the report is released it would be made available to the Board and Advisory Council.

Mr. Stevens outlined the substance of the report in his following discussion, with the use of visuals. Attached is an outline of his report.

Discussion followed and in response to a question with reference Senator Guess' remarks about MRS, Mr. Stevens explained the Panel did not feel it was to be involved in the substance of the program, but felt they needed to find an organizational arrangement to take on the tasks of siting repositories, or if there was a national policy shift into something like an MRS or interim emphasis on an MRS program. He said they chose specifically and consciously not to analyze the various aspects of the program, except where it might have an impact on the organization and its need to carry out national policy.

The question rose as to whether there was any discussion of possible economic advantages of reprocessing, or was that getting into the programmatic aspect. Mr. Stevens said there was one member of the Panel conversant with reprocessing, and he convinced the Panel that reprocessing was not near at hand.

Concerning his remarks about scientific peer groups, Mr. Stevens was asked if they envisioned a different role from what USDOE now

has. He responded there were certain ones already operating, but the Panel wanted a group that was clearly visible with national characteristics. He said they envisioned a group that could look at the whole program in totality, which would serve as an Advisory Committee.

Mr. Bishop inquired if a recommendation such as this could reach a Congressional decision when the report was submitted to the Department of Energy. Mr. Stevens said the Act called for the Secretary making the report to Congress. He said he asked the Secretary last January if this were to be an exercise in futility, and he was assured the Department felt it was very important and they would not be hesitant about making a presentation to Congress. However, he added, there is now a different Secretary of Energy.

Other Business

Mr. Eschels referred to Mr. Bishop's remarks at the Advisory Council meeting that morning concerning plans to revitalize the Council. Mr. Eschels said mention was made of a Scientific Task Force within the Council and he wondered if that were discussed earlier. Mr. Bishop said serious consideration was being given to strengthening the Advisory Council role and function. He said the Advisory Council is a very important group and the work of the Public Involvement Working Group has prompted this re-evaluation to use the same concept in other ways. He said a close look was being taken at the membership, and recommendations will be made to the Office of the Governor to fill the vacancies as all of the terms of the members expire May 1. He said the aim was to make a smooth transition with the possibility of creating other working groups within the Council--one related to government entities, with perhaps an established Mission Plan working with task forces. Another possible working group would be in the scientific or technical area. The goal, he said, would be to provide outreach to give information and education to the public, with the possibility of a citizen task force within the Public Involvement Working Group.

Public Comments

Brett Redfearn of Olympia said he was concerned about the deadline this summer for the final Environmental Assessment. Because of the complications with the draft EA he felt it seemed almost impossible. In the Nuclear Waste Policy Act, Section 111 d., it says "...to establish a schedule for the siting, construction, and operation of repositories that will provide reasonable assurance that the public and environment will be adequately protected from the hazards posed by high-level radioactive waste and spent nuclear fuel as may be disposed of in a repository". He felt more time was needed, and he wondered if the Board had any position on this and should an extended deadline be pursued for a final Environmental Assessment.

Mr. Stevens responded that at various places in the overview statement of the Board there is a recognition of the difficulty of reaching a final Environmental Assessment. The Board believes the Department should look very carefully at the state's comments. Another issue raised by the state concerning documents "out of sequence" was the fact that the Mission Plan had not been filed as required several months ago. Also mentioned is that the final EPA Standards have not been issued. It has been pointed out, he said, the final Environmental Assessment really does need to depend on completion of these other activities. Another concern was that of transportation, and the Board felt a much more thorough analysis of this issue, as well as defense wastes, should be made.

Mr. Redfearn wondered if any indication had been received from USDOE as to their optimism about the August date for release of the final EA. Mr. Stevens said he believed the fact they kept their formal response period intact indicates that the Department wants to keep on track as best they can.

Mr. Parker added that at the USDOE hearing Ellison Burton mentioned having their comment response document out in June, which would imply they would not have time to consider comments made after March 20. Therefore, he said, in the Transmittal Letter clarification was requested on that specific point.

Mr. Redfearns' other comment concerned the possible litigation by the state. He expressed concern his feeling the Board should take steps now in the grant application request for litigation funds. He asked how this was planned to be pursued, referring to the restriction in the grant prohibiting USDOE from granting funds for litigation. Mr. Stevens mentioned the letter from the Chair to the Manager of the Richland Operations Office asking that the condition be deleted from the grant as it was felt it was not an appropriate condition. The other states, he said, are confronted with the same condition, and none feels this condition is appropriate, and there will be collective action on this issue from them as well. Mr. Stevens did say there would probably not be a category for "legal action" in the grant request, but if the restriction would be removed, grant funds could be used.

Virgil Donovan of Ephrata said he was formerly employed by the Atomic Energy Commission and said in reviewing the Environmental Assessment his first concern was to see if it were properly scoped and what was the criteria used. His question was with leaving the repository open for 50 years. He wondered if it were to keep the reactor plan viable. He thought this would present a transportation problem, and suggested having reactors set up all over the country and clean-up operations there. He said he did not find an answer in the document. Mr. Stevens said the period of retrievability was not from the standpoint of reprocessing. He said there was a general feeling that reprocessing was not in the picture at this time, although it could be. He said the period of

retrievability as contemplated in the Nuclear Waste Policy Act is for performance assessment, and the Department has calculated it might take 50 years for that, but it could take longer.

Mr. Donovan said he thought it was more sensible to have these wastes all over the nation, rather than in one spot. Mr. Stevens said there has been a change in concept over the last several years as the original concept was reprocessing and a repository that would be limited to glassified waste. Mr. Donovan thought that was one issue that could be addressed when the guidelines were questioned.

Mr. Donovan continued residents in his area are quite concerned about the plume from the Purex facility; if reprocessing did come about, Hanford could well become a reprocessing plant rather than a waste repository. Upon conclusion of his remarks, Mr. Bishop suggested he file his written comments directly with the USDOE, although Mr. Donovan said he did appear at the USDOE hearings in Richland.

David Tarnas of WashPIRG remarked Monitored Retrievable Storage is becoming of more interest in the program, and it should be realized in the Act the state is not allowed any funding for overview and for research on MRS. He suggested consideration of the state's approach on this issue be undertaken at this time. Mr. Bishop agreed this is being done, and the state's response on the EA also contains a section on the MRS.

Max Power, Director of the Joint Legislative Committee on Science & Technology, announced the Joint Committee is hosting two scoping meetings for the small environmental review they are doing through Envirosphere of the commercial low-level site at Hanford. One will be held in Olympia at 7:30 p.m. on Tuesday, March 19, in Office Building #2. The second will be held at 7:30 p.m. on Thursday, March 21, at Kamiakin High School in Kennewick. He said these will be informal to receive comments and questions from the public. He invited any interested person to attend.

Don Provost asked if these hearings concerned the use of the site at Hanford. Mr. Power replied it is essentially with the site at Hanford, but is broader than the present 100 acre low-level disposal site. They will be looking at the other 900 acres to see what would be most useful to the Department of Ecology to do long-range site planning. Alternative use ideas will be considered given different assumptions about the present low-level operation. Mr. Power said they hoped to have a Summary Report that summarizes existing data of the environmental condition of the 1,000 acres to provide a basis for the Department to do some long-range planning.

Dr. Beare pointed out that in the BWIP looking at the site selected there is an overlap between the state's 1,000 acres and part of the Reference Site. He wondered what the significance of that was vis-a-vis the long-term lease arrangement with the state. Mr.

Power said he believed this question was being raised. Louise Dressen of Envirosphere said several times in their reviewing the BWIP EA, note was taken on this fact and did raise the question of how USDOE proposes to resolve the apparent conflict.

There being no further business, the meeting was adjourned.

Booth Gardner
Governor

Andrea Beatty Riniker
Director

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M E M O R A N D U M

March 14, 1985

TO: Economic Impact Subcommittee

FROM: Jerry Parker

SUBJECT: Guidelines and Economic Impact

A key argument for the draft Board interpretation of the guidelines regarding the threat of a repository to water is contained in the preamble to the guidelines:

> "With respect to the requests for disqualifying conditions for water supplies, the qualifying condition for the socioeconomic guideline indicates that a potential site is not qualified unless adverse impacts on water supplies can be mitigated or compensated. This guideline reflects the DOE's position that, if adverse impacts on water supplies can be mitigated, then it is not appropriate to disqualify a site because of potential adverse impacts on water supplies. The issue is the ability to mitigate or compensate for adverse impacts, <u>not the potential for their occurrence</u>." (emphasis added)

The last sentence appears to support the position of the subcommittee that the economic impact of non-routine releases is addressed under the guidelines, must, therefore, be addressed in the EA, and is a basis for disqualification of a site.

Copies of the relevant section of the preamble and the guidelines attached.

JP/lg

Attachment

disqualifying condition now reads as follows:

(1) The presence of the restricted area or the repository support facilities would conflict irreconcilably with the previously designated resource-preservation use of a component of the National Park System, the National Wildlife refuge System, the National Wilderness Preservation System, The National Wild and Scenic Rivers System, or National Forest Lands, or any comparably significant State protected resource that was dedicated to resource preservation at the time of the enactment of the Act.

Several commenters raised various miscellaneous points and concerns. One commenter was concerned that the displacement of homes and families is considered to be a favorable condition and that priority is given to wildlife over people. The DOE disagrees that the guidelines either express or imply either situation. The DOE states, in several places in the guidelines, that the first priority of the site-selection process is the health and safety of the public.

Another commenter said that the environmental quality guideline does not ensure the suitability of the geologic conditions of the site. It is implicit in this guideline that, in order to protect the environment, the geologic conditions must be suitable. Moreover, such suitability is ensured by the postclosure system and technical guidelines.

Finally, several commenters suggested that the DOE include the environmental quality guideline in the postclosure guidelines. The DOE disagrees. The object of the environmental quality guideline, as stated at the beginning of this section of the preamble, is to protect the quality of the environment throughout all stages of geologic repository siting. Postclosure protection will be provided by the system guidelines, which mandate compliance with 10 CFR Part 60 and 40 CFR Part 191.

Section 960.5-2-6 Socioeconomic Impacts. The objective of the technical guideline on socioeconomic impacts is to ensure that any significant adverse socioeconomic impacts of repository siting, construction, operation, closure, and decommissioning can be offset by reasonable mitigation or compensation and the requirements of system guideline § 960.5-1(a)(2) can be met.

The DOE is committed to a program of socioeconomic-impact measurement and mitigation. Mitigation, as defined by the Council on Environmental Quality, includes actions that will avoid, minimize, reduce, or compensate for adverse impacts (40 CFR 1508.20).

The potential social and economic impacts of geologic repositories were of concern to a number of commenters. The principal issues were (1) the socioeconomic impacts associated with the labor-force requirements of the repository, (2) adverse effects on primary sectors of local economies (e.g., tourism), (3) adverse effects on water supplies, and (4) the psychological effects of perceived risk.

Some commenters were concerned that the labor-force requirements of a repository would impose undue hardship on the private and public service capabilities of affected localities. The viewpoints expressed were often conflicting; for example, some suggested that socioeconomic impacts could be mitigated through stringent siting requirements, such as requiring that two thirds of the labor force live within a reasonable commuting distance of the repository, but others felt that the lack of an available labor force should be a favorable condition. One comment said that the potential for increased employment should not be considered a favorable condition. One commenter stated that disruption to primary sectors of the economy of the affected area should be a disqualifying condition. Another felt that irreversible changes in a chosen way of life should be a potentially adverse condition and deplored the possible loss of agricultural land.

The DOE feels it would be inappropriate to specify quantitative labor-force requirements because there are so many variable factors that cannot be controlled. It would be possible, for example, to construct housing at the site for transient labor if sufficient labor were not available within a reasonable commuting distance from the site. The creation of new jobs for locally available labor would be received favorably in most areas; however, an influx of new workers could have significant adverse socioeconomic impacts. For these reasons, the potentially adverse and favorable conditions concerning the supply of labor were retained. In areas where new jobs might not be welcomed, the DOE will work with the States, affected Indian tribes, and the public to identify suitable means of mitigating unwanted impacts and preserving and enhancing the quality of life. Since adverse socioeconomic impacts on affected local economies can generally be mitigated, the DOE does not believe that such impacts are disqualifying. Where agriculture is a primary sector of the affected economy, the loss of agricultural land would be a potentially adverse condition.

A commenter stated that a major disruption of the local economy is almost certain and observed that the guidelines on population density and distribution (§ 960.5-2-1) and socioeconomic impacts (§ 960.5-2-6) are somewhat contradictory. Another asked that socioeconomic and environmental impacts along waste-transportation routes be addressed, and a third suggested that postclosure impacts be included in the socioeconomic guideline.

The DOE agrees that some disruption will be experienced by the local economy, just as it is as in most large-scale industrial developments. However, because most socioeconomic impacts can be anticipated and mitigated, major disruptions can be avoided in most cases. When guidelines §§ 960.5-2-1 and 960.5-2-6 (population density and socioeconomics) are taken together, areas of low population density within a commuting distance of significant labor pools could gain favor in site comparisons if the technical qualifications are equal. Socioeconomic and environmental impacts along local transportation routes will be addressed in the siting process. Postclosure impacts, however difficult to assess, will be the subject of impact-mitigation discussions and agreements between affected States, affected Indian tribes, and the DOE.

Other comments said that (1) the guidelines should emphasize net gains in the overall economy and in employment, (2) the term "affected area" should be changed to "affected region," and (3) the cost of the repository should be taken into account as a socioeconomic impact.

The DOE agrees that net gains in employment and in the local economy should be considered a favorable condition and has revised the guideline accordingly. With respect to the use of "affected area" versus "affected region," repository development may produce socioeconomic impacts in an area of several counties, but it will probably have minimal effect on the economy of an entire region of the country. The costs of the repository need not be treated as a socioeconomic impact because they will be borne by the owners of the radioactive waste. Furthermore, cost ranks below public health and safety, the quality of the environment, and socioeconomic conditions.

Also mentioned were possible adverse impacts on agriculture, tourism, and recreation, but another commenter pointed out that the services and facilities developed for repository

workers and their families could enhance the ability of an area to accommodate tourists and seasonal populations.

The DOE is aware of the concern about adverse effects on agriculture, tourism, and recreation. One potentially adverse condition in the socioeconomics guideline is the potential for major disruptions of primary sectors of the economy of the affected area. The DOE will work with States, affected Indian tribes, and localities to anticipate and mitigate such effects if they arise.

Commenters on the alternative guidelines were also concerned about the potentially adverse condition regarding the acquisition of water rights and the effects thereof. One maintained that a model of water usage should be developed. Two commenters asked that disqualifying conditions be specified for water supplies. One commenter requested that the DOE add water use to acquisition of water rights as a potentially adverse condition. Several commenters asked for a guideline that would protect producing aquifers.

The DOE will evaluate water usage during the engineering design of a repository in a specific rock type. With respect to the requests for disqualifying conditions for water supplies, the qualifying condition for the socioeconomic guideline indicates that a potential site is not qualified unless adverse impacts on water supplies can be mitigated or compensated. This guideline reflects the DOE's position that, if adverse impacts on water supplies can be mitigated, then it is not appropriate to disqualify a site because of potential adverse impacts on water supplies. The issue is the ability to mitigate or compensate for adverse impacts, not the potential for their occurrence. The DOE expects that, where water is scarce, there will be controls on its use. Where water usage is controlled by administrative means other than water rights per se, the DOE will consider the acquisition of water through such other administrative controls to be equivalent to the acquisition of water rights. Producing aquifers are protected through the system guideline on environmental quality and the technical guideline on socioeconomics.

One commenter was concerned that the perceived risk of a repository might induce anxiety and stress, causing some people to leave the area, and complained that the issue was not addressed in the guidelines.

The DOE recognizes that the risk of new technologies involving hazardous materials may be perceived to be greater by the general public than it is by technical experts. However, past experience with other new technologies suggests that the anxieties of the public may be alleviated as the technology is seen to be effective and its benefits become more apparent. The overriding emphasis of the guidelines on public health and safety, as well as the DOE's commitment to open communication and public involvement throughout the siting process, is intended to help alleviate public concerns about the risks of a repository. Perceived risk, however, is not an appropriate topic for general repository-siting guidelines; it is a subjective condition that cannot be fairly compared among sites.

The DOE recognizes that the possible impacts of rapid, large-scale growth in sparsely populated rural areas are legitimate concerns in siting a major facility. Therefore, the socioeconomics guideline has been revised to more clearly indicate that the existing socioeconomic base (population, labor force, infrastructure, services, etc.) will be explicitly considered in site selection. The final guideline on socioeconomics includes a qualifying condition, a set of four favorable conditions, and a set of four potentially adverse conditions. Because of the complexity of socioeconomic interactions, the possibility of mitigation, and the extensive analysis and planning required by the Act, the DOE took the position in the guidelines of November 1983 that socioeconomic impacts do not represent an absolute disqualifying condition.

The qualifying condition in the final guideline will ensure that any significant adverse social or economic impacts will be addressed; it will also ensure that the system guideline, whose objective is to protect the socioeconomic well-being of the population, will be met. The qualifying condition also specifies the range of socioeconomic considerations that will be addressed in the analysis.

The four favorable conditions in the final guideline are (1) the ability of an affected area to absorb project-related population changes; (2) the availability of an adequate labor force; (3) projected net increases in employment and in public and private revenues; and (4) the lack of significant disruption to primary sectors of the economy of the affected area.

The four potentially adverse conditions are (1) potential for significant impacts on community services, housing, and public revenues; (2) the lack of an adequate labor force; (3) water-right acquisition that would have potential adverse impacts on the development of the affected area; and (4) potential for major disruption to primary sectors of the economy of the affected area. Since these potentially adverse conditions could be mitigated in many cases, they would not disqualify a site.

In response to the NRC's preliminary concurrence condition 7, which requested additional disqualifying conditions that are directed at the specific factors listed in Section 112(a) of the Act, disqualifying condition § 960.5-2-6(d) was added to the guideline on socioeconomic impacts. This disqualifying condition is concerned with potential effects on the rights of users of water and proximity to water supplies. It was not included in the November 1983 guidelines because these factors were implicitly or explicitly included in the system guideline on environmental quality and the qualifying condition for socioeconomic impacts ("competition for resources such as land, water, and construction materials"). However, to accommodate the NRC's request, the DOE developed an explicit disqualifier. Although this disqualifying condition could have been included in guideline § 960.4-2-8-1, Natural Resources, it was included here because the DOE believes that the most serious effects of a significant degradation of major water sources would be socioeconomic. In editing the final guidelines, the explanatory paragraph that followed the statement of the qualifying condition was deleted because the parameters to be considered are now listed in Appendix IV.

Section 960.5-2-7 Transportation. The objective of the transportation guideline is to ensure that proper consideration is given to the transportation of waste to a repository site, as it could affect the health and safety of the public, the environment, and the cost of waste disposal. The guideline requires the evaluation of a site's proximity to adequate highways and railroads, the characteristics of access routes from existing highways and railroads to the site, the costs and other impacts of designing and constructing the access routes, and the impacts of transporting waste over the access routes. The guideline indirectly requires the consideration of proximity to the sources of waste because one of the favorable conditions is stated in terms of a comparison of costs and risks among sites.

In the proposed guidelines of February 1983, transportation was treated as a subset of population density and distribution. Many comments on the proposed guidelines emphasized the importance of transportation and the

programmatic, technical, social, economic, and environmental factors.

(2) Any part of the restricted area or repository support facilities would be located within the boundaries of a component of the National Park System, the National Wildlife Refuge System, the National Wilderness Preservation System, or the National Wild and Scenic Rivers System.

(3) The presence of the restricted area or the repository support facilities would conflict irreconcilably with the previously designated resource-preservation use of a component of the National Park System, the National Wildlife Refuge System, the National Wilderness Preservation System, the National Wild and Scenic Rivers System, or National Forest Lands, or any comparably significant State protected resource that was dedicated to resource preservation at the time of the enactment of the Act.

§ 960.5-2-6 Socioeconomic impacts.

(a) *Qualifying Condition.* The site shall be located such that (1) any significant adverse social and/or economic impacts induced in communities and surrounding regions by repository siting, construction, operation, closure, and decommissioning can be offset by reasonable mitigation or compensation, as determined by a process of analysis, planning, and consultation among the DOE, affected State and local government jurisdictions, and affected Indian tribes; and (2) the requirements specified in § 960.5-1(a)(2) can be met.

(b) *Favorable Conditions.* (1) Ability of an affected area to absorb the project-related population changes without significant disruptions of community services and without significant impacts on housing supply and demand.

(2) Availability of an adequate labor force in the affected area.

(3) Projected net increases in employment and business sales, improved community services, and increased government revenues in the affected area.

(4) No projected substantial disruption of primary sectors of the economy of the affected area.

(c) *Potentially Adverse Conditions.* (1) Potential for significant repository-related impacts on community services, housing supply and demand, and the finances of State and local government agencies in the affected area.

(2) Lack of an adequate labor force in the affected area.

(3) Need for repository-related purchase or acquisition of water rights, if such rights could have significant adverse impacts on the present or future development of the affected area.

(4) Potential for major disruptions of primary sectors of the economy of the affected area.

(d) *Disqualifying Condition.* A site shall be disqualified if repository construction, operation, or closure would significantly degrade the quality, or significantly reduce the quantity, of water from major sources of offsite supplies presently suitable for human consumption or crop irrigation and such impacts cannot be compensated for, or mitigated by, reasonable measures.

§ 960.5-2-7 Transportation.

(a) *Qualifying Condition.* The site shall be located such that (1) the access routes constructed from existing local highways and railroads to the site (i) will not conflict irreconcilably with the previously designated use of any resource listed in § 960.5-2-5(d) (2) and (3); (ii) can be designed and constructed using reasonably available technology; (iii) will not require transportation system components to meet performance standards more stringent than those specified in the applicable DOT and NRC regulations, nor require the development of new packaging containment technology; (iv) will allow transportation operations to be conducted without causing an unacceptable risk to the public or unacceptable environmental impacts, taking into account programmatic, technical, social, economic, and environmental factors; and (2) the requirements of § 960.5-1(a)(2) can be met.

(b) *Favorable Conditions.* (1) Availability of access routes from local existing highways and railroads to the site which have any of the following characteristics:

(i) Such routes are relatively short and economical to construct as compared to access routes for other comparable siting options.

(ii) Federal condemnation is not required to acquire rights-of-way for the access routes.

(iii) Cuts, fills, tunnels, or bridges are not required.

(iv) Such routes are free of sharp curves or steep grades and are not likely to be affected by landslides or rock slides.

(v) Such routes bypass local cities and towns.

(2) Proximity to local highways and railroads that provide access to regional highways and railroads and are adequate to serve the repository without significant upgrading or reconstruction.

(3) Proximity to regional highways, mainline railroads, or inland waterways that provide access to the national transportation system.

(4) Availability of a regional railroad system with a minimum number of interchange points at which train crew and equipment changes would be required.

(5) Total projected life-cycle cost and risk for transportation of all wastes designated for the repository site which are significantly lower than those for comparable siting options, considering locations of present and potential sources of waste, interim storage facilities, and other repositories.

(6) Availability of regional and local carriers—truck, rail, and water—which have the capability and are willing to handle waste shipments to the repository.

(7) Absence of legal impediment with regard to compliance with Federal regulations for the transportation of waste in or through the affected State and adjoining States.

(8) Plans, procedures, and capabilities for response to radioactive waste transportation accidents in the affected State that are completed or being developed.

(9) A regional meteorological history indicating that significant transportation disruptions would not be routine seasonal occurrences.

(c) *Potentially Adverse Conditions.* (1) Access routes to existing local highways and railroads that are expensive to construct relative to comparable siting options.

(2) Terrain between the site and existing local highways and railroads such that steep grades, sharp switchbacks, rivers, lakes, landslides, rock slides, or potential sources of hazard to incoming waste shipments will be encountered along access routes to the site.

(3) Existing local highways and railroads that could require significant reconstruction or upgrading to provide adequate routes to the regional and national transportation system.

(4) Any local condition that could cause the transportation-related costs, environmental impacts, or risk to public health and safety from waste transportation operations to be significantly greater than those projected for other comparable siting options.

Ease and Cost of Siting, Construction, Operation, and Closure

§ 960.5-2-8 Surface characteristics.

(a) *Qualifying Condition.* The site shall be located such that, considering the surface characteristics and

Booth Gardner
~~JOHN SPELLMAN~~
Governor

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Chair

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M E M O R A N D U M

March 15, 1985

TO: Nuclear Waste Board

FROM: Economic Damage Analysis Subcommittee
Curt Eschels, Chair
Ray Lasmanis
Dick Nelson

SUBJECT: Economic Damage Analysis: Report of the Subcommittee

A. Summary

The Subcommittee has met three times since its appointment and is pleased to present its report to the Nuclear Waste Board. The report contains a section on background information, a description of the type of analysis we believe is necessary, and a series of recommendations.

We believe the kind of analysis we recommend is required in the Environmental Assessments and would be a valuable tool in site nomination. USDOE's efforts so far are not adequate to address economic risk in nominating sites for characterization. Therefore, we recommend that this finding be included in the Board's comments on the Department's draft.

Furthermore, we recommend that the Board pursue negotiations with USDOE on the proper methodology to perform damage analysis and on funding for the Board to examine independently both the methodology and implementation of this analysis.

Finally, we recommend that counsel examine our report and supporting documentation for inclusion in the Board's lawsuit on USDOE's inadequacies in the siting guidelines.

B. Background

1. Negotiations of Board with USDOE: The Subcommittee of the Board negotiating a C&C agreement with USDOE identified one year ago the need for an economic risk analysis as a means to resolve conflict concerning liability in general, and the adequacy of the Price-Anderson Act in particular. Ellison Burton of USDOE promised that USDOE would perform the necessary analysis. Although a schedule was not adopted, the impression was given that preliminary analysis would be completed by the time the draft EAs were released. At subsequent meetings the Subcommittee requested an outline or progress report and was informed that such documents were not ready for release.

   In a letter of October 29, 1984 to Ben Rusche, David Stevens requested detailed information on the content and schedule of the promised economic risk analysis.

   In November that year, Representative Nelson discussed the status with Roger Gale of USDOE at the National Conference of State Legislatures in Denver. Mr. Gale acknowledged a major delay and promised a response.

   On December 11 the Board received the response of Ben Rusche to the Stevens letter of October 29. It indicated a 20 month study period and contained a two-page outline of tasks to be performed in the analysis.

   USDOE is working with Brookhaven and Argonne National Laboratories on the conduct of the study. The date for submission of a revised task statement to USDOE by Brookhaven was extended from the end of January to the end of February. The Board has not received the revised task statement as of this writing. An interim allocation of $400,000 has been made for the study; a budget has not been adopted by USDOE.

2. Scope and Procedures for Proposed Analysis: USDOE and Brookhaven admit they are experiencing difficulty in adopting an approach to a study unique in its time span and in the potential consequences to be considered. At this time the Department favors a generic analysis rather than site specific analysis. USDOE intends to use such analysis in the EIS, but not in the EA. Both USDOE and Brookhaven have emphasized the need for the states and all

other interested parties to be involved in scoping and reviewing the analysis throughout the progress of the study. The Project Manager at Brookhaven has expressed a desire to appear before the Board to discuss the issue.

Neither the Board nor USDOE has adopted a specific definition of economic risk analysis. Although the task outline submitted by USDOE addresses a range of economic impacts from "non-routine" events, discussion with USDOE officials indicates a reluctance to admit the possibility of accidents. Analysis need not, however, attempt to define the specific probability of "non-routine" releases. The statistical risk analysis is difficult; futhermore, any sites examined would presumably be built under the same standards and guidelines and operate under similar probabilities of accident.

For the purpose of analysis at present, therefore, the Subcommittee suggests examining what is at risk instead of insisting that USDOE admit and quantify the statistical risk. Rather, a range of credible releases should be postulated and the economic consequences of such releases calculated. For this reason, the Subcommittee favors the term "economic damage analysis". The results of such an analysis will also be useful in examining liability limits.

The proper procedure for analyzing low-risk, high-damage accidents is one which treats separately the risk statistics and the resources at risk. This is a well-established procedure, used extensively by such agencies as the U.S. Department of Interior and Nuclear Regulatory Commission in examining off-shore oil leasing and nuclear plant siting, respectively.

Cataloging and quantifying those resources that are credibly at risk provides concrete information on which to proceed. Properly performed, this type of analysis defines bounds of credible damages and allows comparison among sites directly when probabilities of accidents are assumed to be comparable. Separate studies must be performed to assure that the assumption is valid.

In its discussion of economic damage analysis the Subcommittee of the Board has also concluded that the potential economic impact of both routine and non-routine events

should be addressed. The potential extent of radionuclide release from both routine and non-routine events must be specified, and all such events must be credible.

3. Provision for Economic Damage Analysis in NWPA and Related Documents: Consideration of economic impact is addressed in the Mission Plan. Economic risk analysis is not. The focus is on the impacts of routine construction and operation on population, housing, wage rates, business activity and land use.

   The Siting Guidelines do not specifically identify a need for economic risk analysis. They do, however, specify conditions which can be interpreted to require such analysis. Guideline 960.5-2-6 (Socio-Economic Impacts) lists as a favorable condition "No projected disruption of primary sectors of area's economy". A potentially adverse condition is "Potential for major disruption of primary sectors of area's economy". Finally, a disqualifying condition exists if "Repository would significantly degrade or diminish water from major sources of off-site supplies presently suitable for human consumption or crop irrigation".

   A detailed review and interpretation of the guidelines would be required to determine under what assumptions of repository performance such guidelines are to be applied.

   Economic risk resulting from routine and unanticipated events in the construction and operation of the repository is not described in the EA and apparently was not a factor in site nomination.

   Under provisions of the NWPA, states recommended for site characterization are to be funded by USDOE to develop a request for impact assistance to mitigate impacts of repository construction. It appears that the economic impact analysis provided for in the Act would include the analysis of economic risk.

4. Other States' Actions: Texas observed that the grant guidelines to the states prohibit states from duplicating analysis performed by USDOE, with the exception of socio-economic analysis. If this interpretation is correct, the state could fund an economic damage analysis independent of that being performed by USDOE.

Steve Frishman of Texas says his office has been negotiating with USDOE for economic risk analysis for a long time to little avail. On February 11, 1985 U.S. Senator Lloyd Bentsen conducted a hearing of the Environmental and Public Work Committee in Hereford. The focus was on economic impacts and, given the concern for contamination of the Oglalla acquifer in Texas, examination of economic risk was a major topic.

Nevada has not taken action to request economic risk analysis but has indicated an interest in this issue.

C. Analysis Desired by the Board

The Board's position that economic damage analysis is an appropriate consideration in site selection reflects the assumption that differences exist among sites--and transportation routes--in terms of the potential damages resulting from a major release. Economic damage analysis should describe and quantify the economic consequences of both routine and unanticipated events at and to each site for which environmental assessments have been prepared. The analysis should be based on a common methodology, but should be site specific and permit comparison among potential sites. Non-routine events should include a range of rates of release of radionuclides both from the repository and in transit. Although such events must be hypothetically possible, the probability of release should not be a factor in economic damage. As the Subcommittee pointed out at the end of section B.2, the proper analysis treats separately the probability and the quantity at risk. Quantifying those resources at risk serves both a comparative function now (affecting the ranking) and a thorough, focused examination later (during site characterization). Resources at risk near the repository and along transportation routes should be identified; the costs of decontamination, resource placement, and repository evacuation or reconstruction should be estimated.

The Subcommittee submits, as an example, an initial and limited set of considerations in one area of economic impact, water contamination, in order to clarify the nature of the analysis of economic damage it requests. We emphasize that potential contamination of water is only one of several areas of potential economic damage to be addressed in the requested analysis.

Potential Impact of Water Contamination

Analysis should describe:

- Dependence of agriculture on water capable of being contaminated. Identify by total area, location, crops, etc.
- Current value of agricultural activities dependent on such water.
- Potential increase in volume and value of agricultural activity dependent on water subject to contamination.
- Feasibility and cost of water purificiation and alternative water resources.
- Dependence of regional population on water subject to contamination.
- Potential need to relocate population to limit exposure from water contamination.
- Potential need to relocate population as result of lack of alternative economic sources of water.
- Potential impact of water contamination on real estate values.
- Potential impact of water contamination on water-based recreation, transportation and power production.
- Reduction in fishing resources as result of potential contamination.

Analysis of potential economic impact of both routine and unanticipated releases of radionuclides from the site or from transportation to the site should assume release within two distinct periods: near-term and long-term. "Near-term" describes a period in which future resource use and economic values can be projected on the basis of existing conditions and trends. In most cases, this is assumed to be less than 100 years from the present time.

Analysis of releases in the long-term period must attempt to describe releases at several points in time over the life of the project. This is recognized to be a highly speculative endeavor. Quantitative techniques may not be appropriate;

alternative techniques should be employed. Although the results may not be precise, a discussion of economic damages over the life of the project will reflect in some degree the considerable public apprehension raised by the epochal period over which certain nuclear wastes must be contained. Major changes in future lifestyles within the region which would result from unplanned releases should be described, even if specific economic consequences of such changes cannot be estimated.

In view of the unique time spans for both near-term and long-term releases of radionuclides, estimating the current economic significance of future conditions should not relay primarily on discounting of future economic values to arrive at net present values. The unique period of possible impact dictates development of alternative techniques to reflect the present "value" of future events.

D. Recommendations

1. The Subcommittee believes that economic damage analysis is required to be included in the Environmental Assessment and should be a consideration in ranking the candidate sites. It also finds that no such analysis was included in the draft Environmental Assessment.

   We therefore recommend that the Board include in its comments on the draft a statement that the draft is inadequate in this regard.

2. Because we believe the results of an economic damage analysis would be valuable, we recommend a formal and prompt communique to USDOE expressing the Board's goal to have such analysis performed.

3. We also recommend that the Board request funding from USDOE so it can engage the expertise needed either to review or to perform the analysis itself.

4. Because the siting guidelines seem to require such an analysis, the Subcommittee recommends that the Board's legal counsel be directed to examine the situation and report to the Board: (a) whether the apparent failure to include the analysis warrants inclusion in the pending litigation on guidelines, and (b) what means exist to compel completion of such an analysis on all nine sites under consideration.

CE:hlt

No. _____

IN THE UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

STATE OF WASHINGTON,
NUCLEAR WASTE BOARD,

Petitioner,

v.

UNITED STATES DEPARTMENT OF ENERGY; AND
JOHN HERRINGTON, SECRETARY OF THE
UNITED STATES DEPARTMENT OF ENERGY,

Respondents.

PETITION FOR REVIEW

The State of Washington, Nuclear Waste Board hereby petitions the Court for review of the final decision and action by the United States Department of Energy on November 30, 1984, promulgating "general guidelines for the recommendation of sites for nuclear waste repositories," 10 C.F.R. 960 et seq., published on December 6, 1984, at 49 Fed. Reg. 47752.

Review is sought in this circuit pursuant to section 119(a) of the Nuclear Waste Policy Act, 42 U.S.C. § 10139(a).

DATED this 11th day of March, 1985.

CHARLES B. ROE, JR.
Senior Assistant Attorney General

Attorney for Petitioner
State of Washington
Nuclear Waste Board

Temple of Justice
Olympia, Washington 98504
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Draft

RESOLUTION

by

WASHINGTON STATE NUCLEAR WASTE BOARD

WHEREAS: We, the members of the Nuclear Waste Board, after careful and thoughtful consideration, and after hearing hundreds of hours of testimony; and

WHEREAS: The people of the State of Washington singly and collectively have conveyed to us their concerns; and

WHEREAS: There is great fear that that mighty jewel - the Columbia River - will become contaminated, and

WHEREAS: There is great concern over the transporting of high level nuclear waste over our highways; and

WHEREAS: The Board has confidence that a deep geologic repository can and will be properly designed and constructed to safety store the intended material; and

WHEREAS: The subject material contains rare earth elements in higher concentrations than any source known to man and constitutes a national treasury; and

WHEREAS: Studies have been completed which conclude beyond a reasonable doubt that Monitored, Retrievable Storage is greatly to be desired over Deep Geological Repository Storage; and

WHEREAS: The Rattlesnake Mountains, lying wholly within the Pasco Basin and a part of the Hanford Reservation, offer a dry, above-grade, secure site greatly superior to a below-grade site.

3/7/85

A Report to
The U.S. Secretary of Energy

Managing Nuclear Waste — A Better Idea

Advisory Panel on Alternative
Means of Financing and Managing
Radioactive Waste Facilities

Diarmuid F. O'Scannlain, Chairman

December 1984

ADVISORY PANEL ON ALTERNATIVE MEANS OF FINANCING AND MANAGING RADIOACTIVE WASTE FACILITIES

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Nuclear Safety
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and Chief Executive Officer
S. M. Stoller Corporation
New York, New York

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Morton, Attorneys-at-Law
Indianapolis, Indiana

Representative Arnie Wight
Chairman, Science and
Technology Committee
New Hampshire General Court
Amherst, New Hampshire

KEY COMPONENTS OF A SATISFACTORY WASTE MANAGEMENT STRUCTURE

1. MILESTONE REEVALUATION AND ACHIEVEMENT

   RECONSIDERATION OF NEEDED TASKS >

   TECHNICAL REQUIREMENTS
   INSTITUTIONAL
   CONTINGENCY PLANNING PROCESS

2. WASTE FUND OVERSIGHT COMMISSION

   - REPRESENTATIVES FROM AFFECTED GROUPS (UTILITIES, RATEPAYER REPS (PUC) & (STATES))
   - COST EFFECTIVENESS
   - RECOMMENDATIONS ON PROPOSED FEE CHANGES

3. ADVISORY SITING COUNCIL

   - INPUT
   - OVERSIGHT
   - COMPOSED OF STAKEHOLDERS

4. SCIENTIFIC PEER REVIEW BOARD

   SCIENTIFIC/TECHNICAL EXPERTNESS

5. STATE/TRIBAL TECHNIAL REVIEW CAPABILITY

- INDEPENDENT JUDGMENT
- BINDING PROCEDURAL AGREEMENTS
- ADEQUATE FINANCING
- TECHNICAL CAPABILITY
- HELP CREDIBILITY/CONFIDENCE

6. LOCAL ECONOMIC DEVELOPMENT

- NWPA--FINANCIAL ASSISTANCE TO MITIGATE IMPACTS
- CONSIDER INCENTIVES TO COMMUNITIES
- ECONOMIC BENEFIT PROGRAMS
- NO IMPACT ON TECHNICAL SOUNDNESS OF SITE

7. PUBLIC EDUCATION & INFORMATION

- FACTS--NOT PROMOTION
- FUNDING OF STATE/TRIBAL PROGRAMS

8. OVERSIGHT CONTRACTOR

- INTERNAL CONSULTANT
  - SCHEDULE
  - COST CONTROL
  - TECHNICAL OVERSIGHT
- IN-HOUSE COORDINATION FIELD ACTIVITY
  - NO CONFLICT OF INTERESTS

9. SPECIAL COUNSEL

- REGULATORY/LEGAL AFFAIRS
- INDEPENDENT

10. PRIVATE ACCOUNTING FIRM

- AUDITING
- FINANCIAL STATEMENTS

11. TENURE OF DIRECTOR (CEO)

NOT CHANGED BY ADMINISTRATION OR SECRETARY

12. PERSONNEL FLEXIBILITY

- SALARIES--COMPETITIVE
- HIRING/FIRING

13. STAFF INCENTIVES

- BONUSES
- PERSONNEL INCENTIVES FOR SUPERIOR WORK

14. CONGRESSIONAL OVERSIGHT

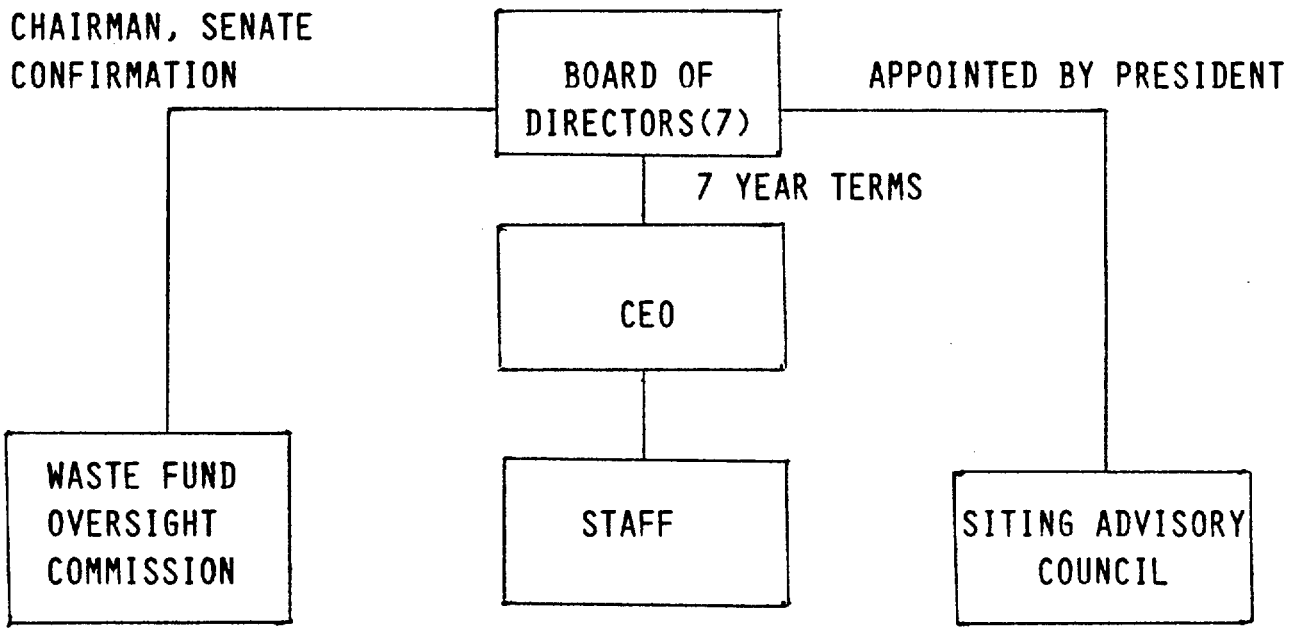
- 7 SENATE COMMITTEES
- 6 HOUSE COMMITTEES
- 10 SUBCOMMITTEES

NEEDS TO BE SIMPLIFIED

ORGANIZATIONAL TESTS

1. MISSION-ORIENTED--SINGLE RESPONSIBILITY
2. CREDIBILITY
3. STABILITY/CONTINUITY
4. PROGRAM AUTHORITY
5. ACCESSIBILITY
6. RESPONSIVENESS
7. INTERNAL FLEXIBILITY
8. POLITICAL ACCOUNTABILITY
9. IMMUNITY FROM POLITICAL INTERFERENCE
10. FINANCIAL ACCOUNTABILITY
11. ABILITY TO STIMULATE COST-EFFECTIVENESS
12. TECHNICAL EXCELLENCE
13. EASE OF TRANSITION

PREFERRED ALTERNATIVE:
A FEDERAL CORPORATION FOR WASTE MANAGEMENT (FEDCORP)



MAINTAIN:

- PUBLIC PARTICIPATION
- C/C AGREEMENTS
- FINANCIAL ASSISTANCE TO STATES/TRIBES

OTHER CHARACTERISTICES:

- SIMILAR FINANCING
- AUTHORITY TO BORROW
- ANNUAL PUBLIC REPORTS
- AUTHORITY TO HIRE/FIRE
- CONTRACTING AUTHORITY