ORIGINAL

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Title: Meeting with States and Affected Indian Tribes on the Status of the National High Level Waste Program

Location: Washington, D. C.

Date: Tuesday, June 16, 1987

Pages: 1 - 84

Ann Riley & Associates
Court Reporters
1625 I Street, N.W., Suite 921
Washington, D.C. 20006
(202) 293-3950

D I S C L A I M E R

This is an unofficial transcript of a meeting of the United States Nuclear Regulatory Commission held on 6/16/87 in the Commission's office at 1717 H Street, N.W., Washington, D.C. The meeting was open to public attendance and observation. This transcript has not been reviewed, corrected, or edited, and it may contain inaccuracies.

The transcript is intended solely for general informational purposes. As provided by 10 CFR 9.103, it is not part of the formal or informal record of decision of the matters discussed. Expressions of opinion in this transcript do not necessarily reflect final determination or beliefs. No pleading or other paper may be filed with the Commission in any proceeding as the result of or addressed to any statement or argument contained herein, except as the Commission may authorize.

UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

***

MEETING WITH STATES AND AFFECTED INDIAN TRIBES ON THE STATUS OF THE NATIONAL HIGH LEVEL WASTE PROGRAM

***

[PUBLIC MEETING]

***

Nuclear Regulatory Commission
1717 H Street, Northwest
Washington, D.C.

Tuesday, June 16, 1987

The Commission met in open session, pursuant to notice, at 2:05 p.m., the Honorable LANDO W. ZECH, Chairman of the Commission, presiding.

COMMISSIONERS PRESENT:

LANDO W. ZECH, Chairman of the Commission
THOMAS M. ROBERTS, Member of the Commission
JAMES K. ASSELSTINE, Member of the Commission
KENNETH CARR, Member of the Commission

STAFF AND PRESENTERS SEATED AT THE TABLE:

W. PARLER

S. CHILK

R. JIM

W. BURKE

R. HALFMOON

D. WHITE

D. PROVOST

M. MURPHY

R. STOREY

B. SMITH

S. FRISHMAN

P R O C E E D I N G S

CHAIRMAN ZECH: Good afternoon, ladies and gentlemen. This afternoon, the Commission will hear from the several states and affected Indian tribes on how they view the status of the National High Level Nuclear Waste Program.

Commissioner Bernthal will not be with us this afternoon.

Last week, the Commission was briefed by Mr. Ben Rusche of the Department of Energy on the Department of Energy efforts to keep the national program moving and in meeting the requirements of the Nuclear Waste Policy Act.

Today's discussion with the states and affected Indian tribes is both timely and useful in providing a broad perspective on the status of this program.

The Department of Energy has noted the need for greater involvement by the states and the affected Indian tribes in their technical program and the NRC recognizes the importance of cooperation between all involved parties in attempting to reach a resolution of issues in a timely manner and on the ultimate success of this important national program.

This afternoon the Commission will hear a number of speakers. In order to keep our meeting on schedule, I would appreciate it if each individual and each organization being represented today will attempt to keep their presentation to the alloted times.

Do any of my fellow Commissioners have any opening remarks to make?

COMMISSIONER ASSELSTINE: Just a quick comment, Lando. I commend you for scheduling this meeting. We have had a number of periodic meetings with DOE and I think to a certain extent, we may have lost touch a little bit with the current thinking of the affected Indian tribes and the states. I think this is an excellent idea to have this meeting, apart from specific decisions that the Commission has to make.

I think this gives us a little broader opportunity for exchange in an understanding of where the tribes and states think we are in this program. I think it is an excellent idea.

CHAIRMAN ZECH: Thank you very much. I appreciate that. I certainly agree this is a very important meeting.

Unless any of my fellow Commissioners have any other opening remarks, I'd like to ask Mr. Russell Jim, representing the Yakima Indian Nation, our first speaker, to introduce the representatives at the table and proceed with your briefing. Please proceed, sir.

MR. JIM: Thank you very much, Mr. Chairman. I, too, as Commissioner Asselstine said, think it is a timely meeting and I appreciate this opportunity. I have an oral statement I would like to read.

My name is Russell Jim. I am the Manager of the Nuclear Waste Program for the Yakima Indian Nation. We are

adjutant to Hanford and the Hanford site is located on seeded land that we consider to be used by us according to the Treaty of 1855.

Without further ado, I shall read my prepared statement.

CHAIRMAN ZECH: Please proceed.

MR. JIM: My name is Russell Jim. I am the Manager of the Nuclear Waste Program of the Yakima Indian Nation. I would like to thank you for this opportunity to present the views of the Yakima Nation about the status of the Federal Nuclear Waste Disposal Program.

I would like to discuss the very different conclusions that are reached by the respective parties about the suitability of the sites DOE has recommended for characterization. We are convinced that the process that has been used to select the sites for characterization and the results of that process are seriously flawed.

Looking at the same information and process, experts who are optimistic, including the Commission, conclude that there is no reason not to proceed with the sites recommended by DOE for characterization.

What is the basis for these differences in conclusions? All of the parties agree on one point; not enough is known about the sites at this time to make conclusive determinations about their suitability. The differences of

opinion revolve around the appropriate degree of conservatism to use in making the assumptions that are necessary to fill in the gaps in our present understanding.

DOE almost invariably makes optimistic assumptions. DOE's largely unfounded conclusion is that all the sites are suitable for repositories.

The NRC in contrast, has identified significant issues for all of the sites which must be resolved if they are to be found licensable. Significantly, the Commission's official stated position appears to be that if these issues are not resolved, they could prevent licensing of any of the sites. In spite of this presumption, the Commission concludes that there is no reason not to proceed with characterization of the three recommended sites.

The Commission apparently supports characterization of the recommended sites because it cannot now be determined conclusively that any would be unsuitable. We hold the more conservative view that the adverse conditions at some if not all of the sites are sufficiently numerous and serious to dictate their elimination from consideration.

We believe that the Commission should not be supporting characterization of the recommended sites when by its own admission, there are potentially disqualifying conditions at all of them.

A conservative program with a comprehensive national

screening using truly selective siting guidelines could identify sites which the Commission could endorse more enthusiastically. Instead of having to say that significant issues could disqualify any of the sites, NRC should be able to say it cannot identify any issues that would prevent licensing of the recommended sites.

DOE takes the approach that it need not find the best sites but rather only suitable ones. DOE looks at these sites and sees no significant problems. The Commission looks at these sites, sees significant problems and concludes they should be characterized to resolve the problems. Tribes and states and most of their citizens look at the sites, see the same problems, and conservatively conclude that since we could obviously do much better, we should do so.

Which approach should govern implementation of the waste program? If public confidence in nuclear waste disposal is truly crucial to its success, as Congress declared in the Nuclear Waste Policy Act, then the implementing and regulatory agencies should adopt the conservative approach urged by the states and tribes. The reason for this is simple. The American public does not share DOE's optimism about this enterprise. The people are, in general, very skeptical about the ability of our institutions to safely manage and dispose of hazardous materials.

Because of its skepticism, the public will never

accept nuclear waste disposal unless it is convinced that this activity is being carried out as carefully as possible. The people of the Yakima Indian Nation and the public as a whole, want assurance that the Federal Government is truly working to find the best possible sites to dispose of these materials.

What they see instead is a program that refuses to accept the need for conservatism and which could obviously have come up with a much better slate of sites. They see sites that are selected because the Government already owns them, rather than because of their favorable geologic characteristics. They see these sites have many common sense problems, like flowing groundwater, nearby rivers, valuable aquifers, and earthquake faults.

They see DOE doing a comparative evaluation of the sites then choosing for characterization the site, Hanford, that ranks in last place for virtually all considerations.

The advantages of a conservative approach hold true even if the scientific optimists are correct in their assertion that there are no significant technical impediments to successful waste disposal but rather only perceptual or political impediments. Even if perceptions are the only real problem, it should be apparent that the Government and industry cannot alleviate the widespread perception that nuclear waste disposal is unsafe by simply asserting the contrary, and always making the most optimistic assumptions. Indeed, such a course

of action only worsens public skepticism.

The present opposition of tribal and state governments to the implementation of the nuclear waste program is simply a reflection of the views and concerns of their citizens. So long as the people see a program that is based on unbounded optimism, which they do not share, and that rejects the need to try to find sites for repositories that are among the best that can be found, they will never accept a program as safe.

Consequently, their tribal and state governments will reflect that skeptical attitude and it will be very difficult for the program to succeed.

In his remarks to you last week, Ben Rusche mentioned the participation of affected states and tribes at the recent Basalt Waste Isolation Hydrologic Testing meeting, and stated that consensus had been reached that DOE's planned tests were appropriate. While we agree there was a consensus that the meeting was productive and cooperative, there was not technical consensus on the adequacy of the test plans.

Technical representatives of the Yakima Indian Nation raised numerous issues concerning the number and location of planned tests which have not yet been addressed. We look forward to further discussion with DOE about these issues and expect that NRC staff will also be interested in their resolution prior to the commencement of testing.

In conclusion, we sincerely believe that the Commission would in the long run be more helpful to the success of this program if it took a more involved and demanding approach to site selection, rather than deferring to DOE's excessively optimistic approach.

That concludes my oral statement, Mr. Chairman.

CHAIRMAN ZECH: Thank you very much. We will go to the next speaker, please.

MR. BURKE: Thank you, Mr. Chairman and members of the Commission. My name is Bill Burke. I am the Director at the Umatilla Nuclear Waste Study Program.

The Umatilla Tribe appreciates the opportunity to appear before the Commission and to present our perspective on DOE's repository program. We have been reviewing the transcripts of your meetings with Ben Rusche the last few years and have found his comments on progress in the repository program to be consistent with many of DOE's favorable findings in the EAs, in that they are overly optimistic.

As an affected Indian tribe under the Nuclear Waste Policy Act, the Umatilla Tribe has broad authority to conduct independent oversight of DOE's repository program and to ensure that the tribe's interests, namely our treaty rights, are protected.

Our involvement in the repository program over the past four years has generated considerable tribal cynicism and

distrust of DOE's implementation of its duties under the Nuclear Waste Policy Act. DOE's manipulation of the site selection process for the first repository and their indefinite postponement of the second repository evidenced a callous disregard of their statutory obligations under the Nuclear Waste Policy Act and of the need to make siting decisions based on technical merit rather than political and programmatic expediency.

Reports from the NRC staff substantiate our concerns. Because of DOE's failure to conduct the repository program conservatively, there is a strong need for vigorous oversight of DOE's characterization activities by the NRC and affected parties. We have been gravely concerned by DOE's publicly stated working hypothesis at the outset of the site characterization that each of the three sites will be found suitable for development as a repository and that each site will easily meet the EPA standards.

Your staff has reviewed DOE's environmental assessments and their analysis challenged important DOE findings and conclusions for the first repository sites. The NRC's comments on the Hanford environmental assessment found that many of DOE's findings of favorable site conditions were based on sparse data that could just as easily support alternative findings adverse to DOE's interpretation.

The NRC characterized many of DOE's favorable

findings as premature, extremely tenuous and reached by means other than a conservative approach. The NRC claimed that many of DOE's environmental assessment conclusions were overly favorable or optimistic. The findings and conclusions that were the subject of your staff's critical review went to the heart of Hanford's containment capability. They included concerns about groundwater travel time, the tectonic suitability of the site, earthquake swarms and life expectancy of the waste package and the potential for human interference in the vicinity of a site because of the presence of geothermal resources.

There are several particular concerns we have that suggests your staff's warning is appropriate. The Umatilla and Nez Perce Tribes and our consultants are actively engaged in an investigation of the presence of commercial quantities of oil and gas resources in the vicinity of the Hanford site, which could disqualify the site under the siting guidelines.

I would be happy to provide you with a summary of our findings to date after this hearing.

Suffice it to say here that oil and gas exploration activities around Hanford are increasing in an era of depressed exploration budgets. DOE's dismissal of the issue in the Hanford environmental assessment based on the current economics of this rapidly depleting, non-renewable resource of great potential value surrounding a repository required to isolate

radioactive wastes for thousands of years, defies reason.

Let me take this time to remind the Commission of the close working relationship that NRC and all affected parties experience during the environmental assessment process. We encourage the Commission and your Staff to again share comments on the site characterization plan, especially during NRC's site characterization analysis phase. Both the NRC and the tribes should be sure that DOE adequately addresses all technical issues and not distort results from the people we represent.

Addressing these technical issues will require that DOE implement a conservative site characterization program that assumes nothing and one that purports to disprove disqualifying conditions and that conservatively analyzes each site's performance.

In addition, DOE must open the process to close inspection and greater involvement by the NRC and the affected parties. We have found DOE to be extremely reluctant to accept the broad authority of affected parties under the NWPA.

The tribe has confronted DOE's reluctance in consultation, cooperation, negotiations over the last two years, which we terminated last January. As you are aware, Congress withheld $79 million of DOE's 1987 budget, pending Congressional certification of DOE's progress in negotiating C&C agreements. The Umatilla Tribe has withdrawn from C&C negotiations because of DOE's insistence on narrowly

interpreted provisions concerning the authority of affected Indian tribes.

A related issue of mutual concern to the NRC and the tribe continues to be an issue of our onsite representatives at Hanford. Neither representative has been given full access to records, meetings, personnel, or facilities as intended by Appendix VII of the NRC/DOE's site-specific agreement. It is the combination of DOE's flawed implementation of the repository program since the NWPA was enacted and their failure to permit the affected parties to assume the level of involvement and participation Congress intended that has brought this program to its knees.

In summary, the Umatilla Tribe desires a close working relationship with the NRC. Like NRC, we feel that the DOE has been overly optimistic in their approaches to technical issues. Public confidence in DOE's performance has eroded to the point of virtual non-existence. Both the NRC and the Umatilla/Nez Perce onsite representatives have had difficulty accessing information and meetings. We feel the NRC and the tribe need to stand firm on their resolve to improve DOE's performance under NWPA, even if it means going to Congress for a remedy.

Thank you.

CHAIRMAN ZECH: Thank you very much. We appreciate it.

The next speaker, please.

MR. WHITE: Thank you, Mr. Chairman and members of the Commission.

My name is Del T. White. I am a member of the Nez Perce Tribal Executive Committee, which is the governing body for our tribe, and also I serve as the Chairman of the Subcommittee on Nuclear Waste of the tribal government. With me today is Mr. Ron Halfmoon, our Nuclear Waste Policy Manager for the tribe.

We appreciate this opportunity to share with you our views concerning the implementation of the Nuclear Waste Policy Act. We have prepared a statement, which I will submit for the record of this meeting, and I would like at this time to summarize our statement.

CHAIRMAN ZECH: Certainly. Please do.

MR. WHITE: First off --

CHAIRMAN ZECH: Excuse me. I'd like to ask Mr. Burke, you referred to a paper that you are preparing and said you'd be pleased to send it to the Commission, and we would be pleased to receive that, if you would send it to us when it's ready.

MR. BURKE: We will.

CHAIRMAN ZECH: Thank you very much. Proceed.

MR. WHITE: Thank you.

First off, I would like to make clear that the Nez

Perce Tribe has publicly committed that if we can be convinced that the repository which is proposed to be placed within our possessory and usage rights areas, areas guaranteed to us by treaties ratified by the United States Senate, is safe, that no reasonable scenario exists under which dangerous levels of radioactivity will be released from the repository, we as a tribe will not exercise our statutory authority to disapprove the Hanford site.

I start with this point, because it has been widely assumed that all criticism of DOE and its implementation of the Act stem from an unyielding bias against the repository program, and that is simply not an accurate assumption. We believe that the Nuclear Waste Policy Act is a good legislation, but legislation that has not been properly implemented. DOE's performance under the Act does not provide us with much confidence or the Department with much credibility.

Much of our view is based on DOE's performance in the first repository siting process. Our complaints boil down to a belief that regardless of work preliminary to site characterization, Hanford was going to be selected for non-scientific institutional reasons. Our concerns have been heightened by the scholarly criticisms of the selection of Hanford by experts not associated with any state or tribal program.

Our concerns are intensified by the fact that DOE has announced that its working hypothesis is that each of the three states to be characterized is, in fact, acceptable and licensable by the NRC. This approach is a prime example of what, in our view, is the failure of DOE to operate from a conservative assumption.

As you are aware, the NRC Staff has consistently recommended a conservative approach as opposed to DOE. DOE seems more or less to have an optimistic approach in that matter. DOE's failure to follow a conservative approach, coupled with our belief that non-scientific considerations may control site selection, cause us profound doubt as to the impartiality of DOE's scientific program.

We are further concerned that DOE may attempt to limit our own investigational opportunity of potential disqualifying factors. Delays in DOE processing of tribes' grant applications, for example, have prevented us from carrying out important data collection in a timely manner. DOE has also resisted our efforts to investigate the potential for human interference with the Hanford site arising from oil and gas exploration and the possibility that commercially viable quantities of oil and gas exist in the Pasco Basin.

For its part, DOE is too aggressively pursuing its site characterization activities. Consultation, to be effective, should mean more than informing us of a decision

after the decision has been made. Good consultation should involve participation before decisions are finalized.

DOE's plan to begin drilling at Hanford is an example of both DOE's haste and its failure to effectively consult. The DOE proposal to drill 600 feet down into the first basalt level, in apparent violation of the 1987 Appropriations Act regarding restrictions against drilling of exploratory shafts, was made and adopted without any consultation with the State of Washington or the three affected Indian tribes.

At the minimum, we are very concerned that such drilling, which is proposed to be conducted prior to the completion of hydraulic studies, will destroy the integrity of the results of groundwater testing.

There are, however, some recent developments pertaining to DOE and consultation that evidence some improvement. Two DOE decisions -- tribal eligibility for 118(b)(3) impact assistance and the eligibility of all 117(c)(3) elements for consultation and cooperation agreements in the negotiation process -- have been positive.

We believe that the role of the NRC in the nuclear waste process is critical. As you may be aware, we are most disappointed, as the Commission failed to insist that DOE stand by its earlier commitment to NRC that the preliminary determination of suitability would not be made until the characterization process has yielded sufficient information.

Nevertheless, we are pleased with the general course of our interaction with the Commission and its Staff. We are particularly pleased with the proposed rulemaking on rules governing NRC proceedings under the licensing of a geologic repository and your decision to involve all affected states and tribes.

We would like to explore with NRC and its Staff other substantive areas for the development of a close working relationship. Our respective reviews of site characterization plans would be a good area. Another area would involve coordination of our onsite representatives at the Hanford site. And we urge the Commission to continue its vigorous review of DOE's technical investigation. In particular, we hope that NRC will continually urge the use of conservative assumptions by DOE in its analysis of the suitability of Hanford for a repository.

Mr. Chairman, that concludes my brief statement.

CHAIRMAN ZECH: Thank you very much.

Any comments or questions from my fellow Commissioners? Mr. Asselstine?

COMMISSIONER ASSELSTINE: As I listened to Ben Rusche a week or so ago, what struck me was the statements he was making then sounded awfully familiar and similar to the ones he was making about a year or so ago. Yet, when I look back over the past year, it seems we really haven't made much progress.

More than anything else, this program has been characterized by controversy and dispute. There doesn't appear to be a strong consensus within Congress yet as to what needs to be done to correct the problem, although the perception that the program is in trouble is fairly widespread.

I would be interested in your thoughts on what needs to be done to get this program back on track. If you had the ability to reshape or restructure the program, what would you do to help restore a consensus that this program is proceeding in a rational and prudent basis and that it is likely to result in a successful conclusion?

CHAIRMAN ZECH: Do you want to ask any specific member of just anybody who would like to deal with that question.

COMMISSIONER ASSELSTINE: Any one of you who would like to respond.

MR. JIM: Mr. Asselstine, there are numerous ways perhaps the corrections could be made. We are aware that the Congress has considered numerous pieces of legislation. Again, the perception from DOE is there is no problem. Indeed, first of all, I would recommend that we go back, for instance, get back to the laws that we interpret. It has been flawed from the time the guidelines were made, clear up into the time when the preliminary determination of the site selection process came through.

It seems to be steam rolling ahead without all of the milestones met on the critical path. Even though political-wise, they have introduced an amendment to the mission plan and from there, they have suggested the reasoning is to consult more with the tribes and states, yet on the same hand, they will not allow only 90 days for the study of the site characterization plan, which is in excess of 10,000 pages and over 2,000 references.

They stand firm on that. They will not allow any more time than 90 days and yet they seem to base their amendment plans on the length of time, the five year additional time for consultation. That would be one recommendation that at least would give us the proper time to study the documents.

The other would be, if you are going to consult and cooperate, which means we would be in on some of the decision making processes, on a technical basis, we do have technologists that are very knowledgeable, and we would gladly submit either to the DOE, as we have or to this Commission, anything that you would request on a technological basis, either as a programmatic thing or something of significance.

I would like to add that we get along well with the field office in Richland, Hanford. The people there are fairly understanding and they try to cooperate with us as best as possible. It seems that decisions from the top coming down are what stirs up controversies. The timetable, it's somewhat

discouraging when you think you have everything working fairly well, much better than something that has been done in the past and all of a sudden, a decision from the top throws everything into a quandary. That's a brief attempt at trying to get this thing back on track. I'm sure my colleagues would have some other suggestions for you.

CHAIRMAN ZECH: Thank you.

MR. BURKE: I had an opportunity recently to visit with the Department of Energy at the Umatilla Reservation and had an opportunity to share with them an old Indian word that I am sure most of you are aware of. It's an Indian word in the vernacular of the non-Indian. That Indian word is "how." That Indian word or that word, if we use it as an acronym to indicate some values that I think are very important to any culture, those being honesty, openness and willingness, I think if we would use these basic fundamental kind of values in going about implementing the Nuclear Waste Policy Act, we would find we would have a great deal more success.

We have found this true, as I indicated earlier in my statement, that we have had more trouble with the consultation and cooperation. As a matter of fact, it was a policy person from the Umatilla Tribe that characterized the C&C as confrontation and coercion. That was a good characterization of our negotiation meetings.

I think it is very important that we consult and very

definitely cooperate. We found this to be true with your Commission. You have been very cooperative with us. We appreciate that.

I would concur with the statements that Mr. Jim has made. I'm sure that the Nuclear Waste Policy Act as written is a good act and if implemented properly, would give us the results we are looking for.

CHAIRMAN ZECH: Thank you. Anyone else?

MR. WHITE: I don't know what we can do about it because I can't talk for the states, but I can talk for the tribes. If we are talking only about the Nuclear Waste Policy Act, there is a tribal developed consensus. As I noted, the act is good and a lot of time and effort has been put into the act and the letter and spirit of the legislative intent is very good. The people carrying out the act, I think that is the problem or the basis of a lot of disagreement. As you heard before, the steam rolling effect. It comes down to an universal kind of thinking, the scientific basis is being over shadowed by political aspects. All this deals with our credibility.

When I look at the Nuclear Waste Policy Act from a tribal standpoint, tribal viewpoint, we had a rough time just trying to explain and educate everybody involved as to our rights under the Nuclear Waste Policy Act. It has been a continual battle to make various people understand.

We have good rapport with the policy people but when it gets down to the field people, it just sometimes breaks down. I guess communication always breaks down at a certain level.

On the funding process, I think we are ironing that out. The funding process was somebody made determinations that were ineligible for some impact assistance due to some wording in the act. To me, that showed me, and this is just my personal assumption, that it stopped us from doing what we are supposed to be doing, protecting our boundaries of our reservations plus our rights and positions and also the health and welfare of our people.

Those kind of studies were the basis for our involvement. Maybe it is nobody's fault but just a breakdown in communications. We had a big battle and it has been continuous. I think things are getting better the more we let people know how we look at things and how we feel. That is what we are here for. I think the more we sit down at a table like this, the better off we will be in the long run.

The main thing that everybody has in the back of their mind, especially the people I represent, everybody gets to the point where they think there is not going to be an objective basis for any kind of repository anyplace, that it will be based on political aspects. That's the scare that I think has everybody going.

CHAIRMAN ZECH: Thank you.

COMMISSIONER ASSELSTINE: Several of you mentioned in your statements the lack of a conservative approach by the Department of Energy, particularly a failure to take a conservative approach in interpreting the existing data that is available. I think you noted that has been a concern of ours as well. Our staff mentioned that, both on its comments on the draft environmental assessments and also on the final environmental assessments.

I would be interested in hearing whether you see any signs of improvement over the past several months, particularly as we have all begun to engage in some more of these detailed technical meetings on the individual sites and issues associated with those sites.

Do you see a recognition on DOE's part of the concern you all have and we have had in this area and an attempt to deal with it, beyond repeatedly pointing out this problem to DOE? Are there things you see that we could do, that the NRC could do, our staff, to try and move the Department more in the direction of taking the kind of conservative and questioning and challenging approach to evaluating and interpreting the data that at least we all seem to believe is necessary?

MR. JIM: It's very difficult in the alloted time here to try to promote a recommendation to get this back on track in a conservative way. I can only take perhaps some

instances. I do not believe there is too much improvement in the manner in which the conservative approach is being utilized. They seem to assume that on a technical basis, drilling an exploratory shaft, it is necessary without all the technical studies being done, even to the point of wanting to start the shaft and not drill through the basalt, just through the overlying materials and then move and drill the next one.

It seems to be assuming that characterization is going to go ahead without all the technical information. They do not yet have the hydrologic baseline. As you remember, clear back in 1986 when they first envisioned drilling the shaft, they said they would have the hydrologic baseline. They do not have to this day that information that is so necessary to any further consideration of a shaft.

That's one consideration, one of many.

CHAIRMAN ZECH: Any other comments?

MR. BURKE: I would like to say -- I guess one of my observations as far as the conservative approach is concerned, one thing the Department of Energy has not considered or maybe has considered, something that I as an Indian person am very cognizant of, that is what we are doing here is that we are placing into the bowels of the earth, our Mother earth, something that is alive. It is my belief that if I put something into the ground to give back to the earth, it is dead and dust to dust, and that concept. What we are doing here is

putting something alive into that earth. This seriously concerns me.

COMMISSIONER ASSELSTINE: One last question. Bill, I think you mentioned the involvement the staff had with the tribes and states on our sharing of comments on the draft environmental assessments, bringing you into the process.

Do you feel that has continued? Are there further opportunities where we could improve involving you all as full participants in the meetings that we have, not only with you all but with the Department of Energy as well? Do you see progress in terms of your being continued to be full participants in the process, having access to information, being able to share ideas and concerns and where you identify concerns, being able to have those addressed, and do you see some progress with the Department of Energy as well?

I guess I would ask in particular, is there any cause for optimism that we are moving in the right direction in the way the Department of Energy handled the amendments to the mission plan? Do you feel you had an opportunity to make your comments and to have those comments thoughtfully considered by the Department of Energy before they went forward with their changes?

MR. BURKE: Yes. In responding to that, I do feel that there has been some improvement. There has been some improvement in that the Department of Energy is willing to come

to the Umatilla Tribe, as an affected Indian tribe, to the reservation proper and to listen to the governing body of our reservation, the Board of Trustees, and I think this is a marked improvement, and I think if this continues and the NRC has been willing to do this, and I think with this kind of cooperation and consultation, I think things will improve.

MR. JIM: On the other hand, Mr. Chairman and Commissioner Asselstine, we can go on and have some types of consultation and cooperation meetings until we're all blue and gray in the head. But unless our considerations, our suggestions, are taken to heart and utilized, then a meeting just for the sake of a record, then the meeting is useless.

In Las Vegas, for instance, when we assumed that they were coming to try and utilize the C&C process, and when we asked for certain issues -- for instance, the 90-day extension -- they stood their ground and said no. And we just couldn't seem to get across the point that we need to contribute something. We need to -- for instance, on the mission plan, all our suggestions to the amendment of the mission plan were supposedly reviewed, and we questioned them. The DOE says, "Yes, we reviewed them." We asked, "Did you implement any of that into the mission plan," and they didn't answer affirmative or negative, which means to us they probably reviewed them, and that was about it.

We think we have something very valuable to

contribute to this whole Nuclear Waste Policy Act, and going back into the history, I appreciate Mr. Asselstine's involvement and others to see that the particular language involving the indigenous people of this country be involved. And they were very fortunate when the Act was passed in a lame duck Congress, and from there we assumed that we would then contribute to the nation, a national concern.

We have, and we will continue to do so for the benefit of all people. We realize the magnitude of the jobs you have, but we hope that the Department of Energy and others realize the magnitude of the jobs we have. We are responsible, as Program Managers, under this little segment of the world and this segment of a policy, to see that the best suited technical site is found.

Perhaps if it is proven beyond the shadow of a doubt that the basalt is a medium, I guess we're going to have to perhaps accept that. But still remains the question: On top of all the others, even if basalt is a medium, why so close to the Columbia River, when we have the second largest basalt formation in the world?

There are better sites. Thank you.

CHAIRMAN ZECH: Thank you very much?

Commissioner Roberts, anything?

COMMISSIONER ROBERTS: No questions, Mr. Chairman.

CHAIRMAN ZECH: Commissioner Carr?

COMMISSIONER CARR: I noticed, Mr. Burke, in your backup paper that you mentioned you're behind schedule because of funding. Are your funding problems over?

MR. BURKE: No, not at this point. We have not got our funding problems completed to this date.

COMMISSIONER CARR: Is there a process that works?

MR. BURKE: I haven't found it.

COMMISSIONER CARR: And do you still have a prime contractor that you are using?

MR. BURKE: Yes, uh-huh.

COMMISSIONER CARR: And who is he?

MR. BURKE: The Council of Energy Resource Tribes are our technical consultants.

CHAIRMAN ZECH: Well, let me thank all of you for your presentations today. I certainly thing that your being here is important.

I agree with many of your thoughts. I particularly like Mr. Burke's reference to the importance of honesty, openness, and willingness, and also Mr. Jim's comment here recently about the seriousness of discussions and the importance of listening to each other. I think that's what you're saying and actually trying to work things out together, and Mr. White's comments on the necessity to continue cooperating.

Let me just say, I perhaps could summarize all this

by an emphasis on the listening to each other, and truly listening, not just hearing each other, but listening and trying to carry out our responsibilities, as Mr. Jim has also alluded to just moments ago on the seriousness. We're all responsible. We all have a responsibility somewhere or another to the fellow citizens of our country, not only for this generation but for future generations.

So we do indeed have grave responsibilities, to the point where we listen to each other, we try to do the very best we can, and I know, speaking on behalf of all of my colleagues as well as the Staff, I appreciate very much your meaningful contributions and would request your continuing support in order to help all of us arrive at the very best solution possible for the fellow citizens of our country that we all represent, and I deeply respect your views and your comments, and we thank you very much for being with us today.

Thank you, gentlemen.

MR. BURKE: Thank you

MR. WHITE: Thank you.

[Panel excused.]

CHAIRMAN ZECH: Could we have the next panel come up forward, please?

Mr. Don Provost is first on the list. Is that the way you're going to proceed? If not, we'll start that way anyway and let you proceed any way you wish. We welcome all of

you to the Commission.

Mr. Provost, would you proceed?

MR. PROVOST: Mr. Chairman and members of the Commission, thank you for inviting me to present the State of Washington's concerns about the high-level nuclear waste program.

For the record, I am Donald Provost, Performance Assessment Manager of the Department of Ecology's Office of Nuclear Waste Management.

Before I make specific comments, I will briefly discuss our earlier participation with NRC. Our first major involvement was with the 1982 site characterization report on the basalt waste isolation project. State representatives had routine discussions with the NRC Staff, and we are pleased with the excellent work of the Staff.

The draft site characterization analysis, together with comparable reports from the State of Washington, affected tribes, and USGS influenced the U.S. Department of Energy to significantly improve the BWIP program.

Since '82, we have worked closely with NRC Staff. Recent meetings on Hanford hydrology issues and on general technical positions were excellent examples of NRC's fair and independent approach. Your onsite representative is doing an excellent job and is a credit to the Commission.

As you know, we are at a critical juncture of the

high-level nuclear waste program. The site characterization process is on the brink of total collapse. USDOE credibility is at an all-time low. NRC and other affected parties may be painted with the same brush if we do not address the credibility issue now, rather than wait until we are in a crisis situation.

Today NRC finds itself in a position reminiscent of its earlier nuclear power licensing efforts. NRC Staff review of the license is limited to specific NRC responsibilities. Cost, schedule, need, and management capabilities were not reviewed. The result was an extended controversial, contentious licensing hearings which led to higher costs with a great loss of credibility for the utilities and the NRC.

NRC chose to narrowly limit Staff review of the environmental assessments to the Commission's specific responsibilities. The decision was not to review USDOE costs, schedule, or overall ranking of the sites. This approach was taken, even though there is a compelling record which documents defective data collections, lack of adequate quality assurance, a disregard of important data, biased interpretations of data, and overoptimistic site evaluations.

Hanford was ranked dead last in both pre-closure and post-closure comparison of sites. In the years since Hanford was selected as one of the three sites to be characterized, the situation at Hanford has worsened. The stop-work order has not

been lifted, because adequate quality assurance is not yet in place.

DOE disregarded important information which could disqualify the site. When preparing the Hanford hydrology program, USDOE did not schedule consultation with the NRC, states, or tribes during that period. USDOE has not yet provided critical data concerning historic contamination of deep aquifers by iodine 129, as promised. The cost of site characterization has increased in this last year between 10 and 20 percent already.

It is important for you to understand some of the reasons we in the State of Washington are so adamant in our position that the site selection process must be brought to a halt. The May 28th decision must be retracted, and the process must be restructured before this program goes on.

We have identified many serious problems which cannot be brushed aside by simply attributing them to the NIMBY syndrome. Our concerns are real, and they are substantial, and if we get into site characterization long-term, we will be bringing these issues up to both your and USDOE.

Our approach is similar to the NRC Staff's major issues and resolution process. We will look for fatal flaws early in the process, and we would hope that DOE does the same thing, arrange their SEP to look at fatal flaws early in the process.

Briefly, our technical issues include groundwater travel time. The State of Washington, affected parties, and U.S. NRC consultants believe there is a significant likelihood that groundwater travel time would be less than that required by NRC regulations.

Exploratory shaft drilling. Drilling of exploratory shafts will disturb the groundwater system, which could lead to the loss of perishable hydrology data. Exploratory shaft drilling should not start until the pre-ES hydrology programs have been completed and the NRC, states, and tribes have an opportunity to consult with DOE concerning the study results.

Geologic features. Scientists have identified a suspected fault pattern within the controlled area study zone. USDOE plans should include provisions for early drilling to determine the extent of the suspected fault pattern.

Presence of natural resources. There is strong evidence to suggest the presence of natural resources in the vicinity of the proposed repository. Methane, geothermal resources, and groundwater could attract future prospectors to the site. After the final EA was issued, USDOE determined that the proposed repository site at Hanford would be a gassy mine.

Retrievability. The Act requires that nuclear waste packages must be retrievable after placement in a repository. Hanford's high rock stresses causes serious retrievability problems, and USDOE has attempted to engineer around the

problem. At an early stage of the program, the plan was to place multiple canisters in long boreholes. In the EA, USDOE described an approach which utilized short boreholes. Now USDOE is considering a shallow trench approach. Each succeeding approach has greatly increased cost, while not providing confidence that canisters can be retrieved.

Miner safety. Shaft and tunnel construction will relieve in situ stresses which could lead to spontaneous fractures within the rock and rockbursts from walls of shafts and tunnels. Physical stresses caused by high temperatures and a wet environment will require that miners work shorter hours. A loss of ventilation could allow methane concentrations to reach levels which could cause explosions or asphyxiation.

Earthquakes. The many small earthquake swarms or microearthquakes which occur in the immediate vicinity of the Hanford site indicate the release of rock stresses. The distribution of swarms gives an indication of where fracturing is occurring in the basalts, and these fractures are possible groundwater pathways. The earthquake locations appear to coincide with the geologic features mentioned earlier.

Radionuclide and chemical contamination. Previous activities have resulted in heavy chemical and radionuclide contamination of the controlled area study zone. Independent experts should conduct an evaluation of how defense wastes, such as iodine 129, have reached deep groundwaters on and off

the reservation.

Program and data management. USDOE's high-level waste management program has been plagued by serious program and data management problems. The overall management approach has been based on competition among several different repository projects. This has led to inconsistent management and data quality at different sites. USDOE is now planning to contract for an overall manager for site characterization programs at the three candidate sites. This is probably an improved approach, but a management contract will not be in place for at least two years. Clearly, substantial site characterization should not occur until a new management philosophy is operational.

The scope of the State of Washington review activities will continue to cover all health, safety, environmental, socioeconomic, and technical issues. We ask that NRC broaden its review. At a minimum, wrongdoing, lack of disclosure, ethics violations, or misconduct should be investigated prior to the time DOE submits the license application to the Commission.

Simply stated, NRC needs to put teeth in its investigative process. In summary, the high-level nuclear waste program is on the brink of collapse. A stronger NRC role at this time would be a prudent decision. A stronger NRC role would help ensure that ratepayer and taxpayers money is well

spent.

CHAIRMAN ZECH: Thank you very much. I have Mr. Murphy, I believe, next on my list. Is that all right?

MR. MURPHY: That's fine.

CHAIRMAN ZECH: Please.

MR. MURPHY: Thank you, Mr. Chairman, and members of the Commission. I want to echo the remarks that my colleagues have made here today with respect to our gratitude toward the Commission in hearing again the concerns of the states and affected Indian tribes.

I will not, however, echo many of the remarks that my colleagues have made here today but merely adopt and on behalf of the State of Nevada, associate myself with many of those remarks, particularly with respect to the problems we see in the area of consultation and cooperation, lack of conservatism in the Department of Energy's approach to the technical side of the repository siting proposals and several other areas that I see no real need to repeat here today.

Likewise, I am not going to read my prepared statement, Mr. Chairman, but with your permission I would like to highlight a couple of areas that I think exemplify some of the concerns that we see in the overall program and which in one case at least cause us and I submit ought to cause the Commission some serious concern.

CHAIRMAN ZECH: Excuse me, and we will submit your

entire statement for our record.

MR. MURPHY: Thank you very much for reminding me of that, Mr. Chairman.

CHAIRMAN ZECH: Yes, please proceed.

MR. MURPHY: At the outset, I would like to apologize on behalf of Bob Loux who was unable to make it here today. His legislature in Nevada is in the process of winding down its business and reviewing such things as budgets and it is difficult for Bob to leave the state under those circumstances.

Hence, once more he called the second team into the bridge. I also want to echo as my prepared remarks do Mr. Provost's indication and others, I believe earlier, of our basically good relationship, good working relationship, with your staff and how that relationship has, we think, improved significantly and continues to improve significantly, I should say, in recent times.

The best example, the most recent example of that, I guess, from my own point of view is the fact that your staff took the time to deliver to us at least to myself at my hotel last night when I checked in, the transcript of Mr. Rusche's remarks last week as well as the quarterly report which your staff gave you.

That kind of courtesy and accommodation is extremely helpful. We only wish that we receive the same sort of courtesies and accommodations from time to time from the

Department of Energy.

CHAIRMAN ZECH: We appreciate that comment and let me also just commend our staff for that and also ask the staff to please continue to do that. I think that would be helpful.

[Laughter.]

MR. MURPHY: I knew there was a reason I remembered to say that.

[Laughter.]

MR. MURPHY: Let me just for a moment focus on one of the concerns that we have and to try to use it as an example of what we see as a shortcoming in the overall program and maybe explain very briefly why we think it is a concern and that is the environmental -- the lack of a site specific environmental baseline.

Now to many people, particularly those people who don't live in that area and who don't live with the nuclear waste repository program, it probably seems as though we are nit picking when we say, "Why haven't you conducted a bugs and bunny survey of the Yucca Mountain site before proceeding with underground site characterization activities? What could you possible do to so significantly harm the environment to case that kind of concern?"

I don't want to take the time to engage in a defense of the desert environment today, but I do want to make this point and that is, that, to us, is an example of what is

perhaps the most fundamental and underlying concern which all of us have with respect to the Department's approach to managing this process and that is the continued unwillingness to cut square corners in siting and developing and in the future operating a repository.

We see that not only as a serious legal regulatory and technical shortcoming in the program and I frankly forecast that in the event that the Department does not conduct a site specific baseline itself or fund the State of Nevada to do so itself, that that issue will be revisited at the time the Commission is required to decide whether or not they conduct the final EIS.

But be that as it may, that is again symptomatic of the underlying problem we see in the Department's management of the overall program and that is, they simply wherever they can it seems to us have thought of ways to shortcut the process, that is evident in the lack of conservatism in the technical program which your staff has again most recently pointed out to you and which everybody here today has talked about.

It is evident, I feel, in the failure to make any adequate and meaningful attempts at furthering the consultation and cooperation process. It is true that in some areas there is improvement.

There is improvement in the State's ability to participate in the coordinating groups and things of that

nature, although there certainly are continuing problems even in that area but with respect to meaningful consultation and cooperation, with respect to the kind of problem that Russell Jim alluded to and that is unwillingness to heed and to give some credence to the problems which the States and affected Indian tribes bring to this process is exemplified by this environmental baseline problem where they are again cutting across the bias of the process rather than cutting square corners.

We don't think that this process can possibly succeed until the Department sees that shortcoming and determines as the Act requires in my view that they must rigidly conform with all of the obligations that the Act places upon them and all of the obligations which this Commission's regulatory rulemaking decisions place upon them.

Another problem which we see that I want to touch upon very briefly is the upcoming involvement of the National Academy of Sciences. Again in my prepared remarks, I briefly indicate what that concern is. I just again want to highlight that again today because I don't think that I can possibly leave you with a strong enough impression of how seriously we feel that potential for that problem is.

It appears to us that the Department will be seeking not only National Academy of Science oversight, technical oversight into the way the site characterization program is

conducted but will, in fact, be looking for what I describe as the Academy's imprimatur over this entire process.

Two indications of that in my view at least are the Academy's declination to review the underlying raw data on which the Department is basing its judgments and its future activities and the apparent inclusion on the Academy's panels of experts in the areas, so-called areas, of public policy including legal and regulatory affairs.

I can't for the life of me figure out why public policy experts should be included on a panel of technicians whose avowed purpose at least is to oversee the technical sufficiency and the adequacy of the methodology of the site characterization program if it is not indeed with a view toward somehow rendering a judgment with respect to the regulatory adequacy of the decision which the Department ultimately hopes to make.

I think the Commission should view that kind of involvement by the National Academy with extreme caution less you or your successors when this issue is finally brought to you with a license application should really effectively be coopted in your ability to render a truly independent judgment in this area.

A couple of points with respect to the quarterly report, we see some real merit in the topical licensing suggestion which your staff has made. I have touched upon

conservatism already.

I want to strongly endorse the notion and we have talked about this for a long time in the State of Nevada as well as in the States of Washington and Texas, I am sure, we strongly endorse the notion that the Department ought to somehow find a way to bifurcate and I don't know if I would stick with that word in particular, but somehow find a way to resolve those technical issues which can be resolved through surface and laboratory activity before proceeding with exploratory shaft construction particularly if as in the case of volcanism tectonics, the presence of valuable mineral resources, et cetera, that the staff points out at Yucca Mountain, if those issues are potentially disqualifying, if they are and if they can be resolved through surface and laboratory activity, it is beyond me, beyond my capability to understand, why the Department doesn't proceed to do so before committing the resources that they are talking about to proceed with exploratory shaft construction.

Finally, Mr. Chairman, if I may, since this, I take it will be the last opportunity for us to visit with Commissioner Asselstine, on behalf of the State of Nevada, I want to express our gratitude for the way that we have been treated during his tenure on the Commission, the fact that we have enjoyed tremendously working with you, Mr. Commissioner, and as you begin what I hope will be a hiatus, a short hiatus,

from government, again on behalf of the State, we wish you non but fair winds and falling seeds.

COMMISSIONER ASSELSTINE: Thank you.

MR. MURPHY: Thank you, Mr. Chairman.

CHAIRMAN ZECH: Thank you very much. Mr. Frishman.

MR. FRISHMAN: That is hard to follow up!

[Laughter.]

CHAIRMAN ZECH: Do your best. I'm sure you will.

MR. FRISHMAN: My name is Steve Frishman. I am Director of the Texas Nuclear Waste Programs Office. I, too, would like to say that we very much appreciate being able to meet with you on this basis and I hope we can keep this up as regularly as Mr. Rusche can.

I first would like to point out that in some recent activities, I and my staff had some gratifying experiences with your staff in geotechnical and engineering issues, where we have joined in meetings with the Department of Energy and have been very pleased to see that we agree on many of the issues and agree on the reasons for why many of the topics that are brought up are issues and should remain issues.

I see this as a very positive development. I hope it continues. I know my staff is committed to trying to keep that going in the right direction. I get the sense your staff is, too. I am real pleased about that.

I'd like to follow along, furthering what Mr. Murphy

was trying to develop in his comments to you. I'm not really interested and I think you have probably heard all you need to hear, as I pretty well associate myself with most of what you have heard this afternoon, and I'm not very interested in going back and talking about how it is going.

I'm much more interested in talking about how it will go from the perspective of the role of the Commission, if Congress permits this program to go forward as it is or if it gets redirected and it goes forward in some other way. There are some large issues out there that I think need to be looked at, at the Commission level, to give not only your staff some guidance but also to give those of us who are affected parties some sense of how the Commission is going to come down on some issues where we already have the set ups under the current program.

I will probably ask many more questions than I answer. That's also my intent. There are many areas where I think the Commission's role has not been sufficiently defined either by existing circumstances or just because it has not had to be defined yet, or it is defined differently in your regulatory documentation and in the Nuclear Waste Policy Act.

The first that I just can't resist, I have twice this Spring already heard Hugh Thompson say that at least one of these three sites is certainly licensable. I've heard that in testimony before the Senate. The first time was in response to

a question. I thought, maybe he was just out there a little bit and this is what he thought. I heard him very intentionally and deliberately say it the next time.

I've very interested in what the basis for that statement is. In the first instance, he was asked if he would care to say which one and save the ratepayers at least $2 billion.

[Laughter.]

MR. FRISHMAN: He declined. I really am very interested in what the basis for that is. There are a number of possibilities. I'm not trying to be totally naive. I will list what some of those possibilities are.

Just based on the level of information that you know about the sites, based on rock type, based on the hydrogeologic setting, based on geographic location, public versus private land, the first one characterized, or is it simply just to show confidence. I think the latter is the case.

Let me ask a few questions that I think need to go along with that conclusion if you will accept that as a working conclusion.

If that is really what is behind it, of the six remaining sites, are any of them certainly licensable, those that were not selected for characterization. Of the sites that were surfaced in the draft ARR that has now been put on the shelf, are any of those certainly licensable?

I think these are the key questions that stand behind that statement. My thought is that the statement should be made, if it is to be made, it should be made in a clear and unambiguous way or the statement should at least be explained to the Congress when it is made. I think we are in a situation now where the identification and selection of these three sites is highly contentious. You are aware of the technical issues involved from the responsibilities you and your staff have. I think it does not serve well to feed on statements that may not be entirely understood by those who are listening.

Let me go on to a few other issues. We can relax a little bit now.

I have been asking for a couple of years now of your staff and never really received a satisfactory answer because maybe I'm not listening very well, as discussed earlier, and that is I am still very confused about what "resolution of issues" really means. I'm very concerned about that because I tend to immediately begin to think about that phrase in terms of a later licensing process.

I would be very interested to be able to receive for all our benefit, some kind of a clear statement of what is meant when we are all talking about "resolution of issues" in site characterization. I see some possibilities that are not very attractive ones, that have to do with the potential for some early and piecemeal licensing decisions being made as

opposed to the informal conference which is directed by 10 CFR 60.

I also see a possibility for some guidance to the Department of Energy that may be a little bit more in the area of what to do and how to do it rather than why to do it.

That's another issue that I find in my own mind, no pun intended, unresolved.

Another area we have been through under one context in the past and I think is worth bringing up again, and Mr. Murphy touched on it to some extent, that is the Nuclear Regulatory Commission has a separate NEPA responsibility. The Nuclear Waste Policy Act directs you shall adopt to the extent practical the EIS for site selection, that is issued by the Secretary of Energy.

To date, there has been not only a reluctance but a refusal to look at issues that are other than licensing issues on the part of the Commission. I think there is maybe some basis for that just on the level of resources available and the relative timing in the entire process moving toward licensing. I would be very interested in what the Commission intends as its participation or non-participation or some type of process within the DOE's EIA process, that they will be starting probably within a year to a year and a half, should the program proceed on their schedule.

I think it's important for you to be developing how

you are going to do that, because a number of things are hanging on that. Your separate responsibility is really one where you don't have the level of freedom that the Department of Energy has taken to itself under the Nuclear Waste Policy Act. Preliminary determination of suitability, which we all sat at this table and discussed at great length. It puts you in the potential position of having to deal with an EIS that really only can analyze one site, because the other sites are essentially found to be "no action" alternatives. They have been disqualified.

How are you going to deal with that under your separate NEPA responsibility? I don't think you have the level of freedom that the Department of Energy may have in interpreting its EIS or NEPA responsibility that way.

This brings to mind one of those same hearings I discussed earlier where Senator Johnston in a dialogue with Ben Rusche finally got to the point where they could talk about this bright new idea of store the fuel until it's cold and take a relaxed site characterization program in sequence, one site at a time, after all the baggage was cleared off, Mr. Rusche being able to describe whether he liked that idea or not. He finally was able to indicate it may make some sense and then finished his statement or his response to Senator Johnston by saying, hopefully, we will pick the right one first.

Well, this does not instill a great deal of

confidence. I think it puts you as a commission in a very, very difficult position relative to NEPA.

We have been encouraging the Department of Energy to find a way to integrate socioeconomic and environmental plans and approaches with the SCP, so you can lay their whole site characterization program and its implications and all of its impacts out and what each study does and ultimately leading to the development of an environmental impact statement and at the same time gaining a baseline as discussed earlier.

We have been raising that issue for two years now, although just about three weeks ago we were told by the Department one more time, and they were just about ready to try to issue some SCPs, gee, we will have to think about that. The public is not going to find it acceptable to deal with the geotechnical issues of site characterization without dealing with the other issues that are equally and to many of them more important, which are the impacts that go on today in the affected environment and to the socioeconomics of the areas in which they live.

I urge you to begin thinking about what your role should be early in the EIS process so that whenever you do get to a licensing position, that it will be very clear to everyone how you are going to deal with your NEPA responsibilities. At this point, it is again unresolved in my mind and I think unresolved in your minds.

A couple more, I have some others and I will probably will be sending you letters on and off as they become urgent.

The project decision schedule has a designated time for when the Department of Energy will come to you for concurrence for the use of any radioactive material during site characterization, as stated in Section 113 of the Act. The constraints of that within the Act are minimum amount necessary, no more than ten metric ton equivalent, also fully retrievable. It only requires the concurrence of the Commission.

Remember how long we spent, those of you who were on the Commission at the time, discussing what "concurrence" meant on the guidelines. I'm not sure any of us are yet satisfied with what "concurrence" means or meant.

What will be the standard of judgment in that concurrence? Will it be a reasonable assurance those standards under the Act will be met? Will it be a requirement for the use of some proven technique toward some very narrowly defined end, or are we looking at a programmatic type concurrence as opposed to a case by case concurrence?

These are difficult questions. We are dealing with not only high level waste during site characterization. When you access any radioactive material, I can read the Act just as narrowly as the Department of Energy can. To me, "any" means "any." High level waste, I think you will have to look at one

way. I submit to you that other than high level waste used during site characterization is most likely required to be a licensed activity already.

I think there should be some guidance and direction being developed now on how you are going to deal with that request, even though it has not come to you yet. It has been announced that it will come to you.

Just one quick one on the MRS, since we have not heard about MRS yet today. In the licensing considerations for the MRS, including an EIS, first of all, will the need for the project be considered? Will the alternatives to the proposed action be considered? I think they are going to have to be but will they be?

In trying to determine the needs and alternatives and whether in fact the project should go forward from your perspective, will you be making considerations on an ALARA basis, looking at a total waste management strategy, or will you only be looking at the MRS as essentially an end point fixture?

I think I'll leave it at that. Thank you.

CHAIRMAN ZECH: Thank you very much. Ms Storey, I believe you are next.

MS. STOREY: Thank you. I am Ruth Ann Storey, Director of the Utah [illegible]gh Level Nuclear Waste Office. I would like to thank the Commission for the opportunity today to

provide comments. For the sake of brevity, I will just summarize our comments and I have provided a copy of those to you.

CHAIRMAN ZECH: Fine. We will put your full comments into the record, too.

MS. STOREY: Thank you. Today I want to comment on a problem specific to the Utah site. The State of Utah supports the purposes of the Nuclear Waste Policy Act and has endeavored to participate in the nuclear waste program in a manner consistent with those purposes and its obligations under the Act.

While DOE is not currently considering it as a candidate site, the Davis Canyon site in southeastern Utah has been nominated by the Secretary of Energy as suitable for characterization and may remain eligible for characterization.

We, thus, share with the NRC the concern that the siting of the nation's first repository for spent nuclear fuel and high-level radioactive waste be based on a sound, reasoned technical approach to issues of site safety.

We do believe, however, that the site characterization program proposed in the final Environmental Assessment for the Davis Canyon site is inadequate for the purposes of meeting the licensing requirements of 10 CFR 60.

We have further concluded that a technically adequate site characterization program [illegible] site cannot be performed

consistent with the requirements of the Act and the siting guidelines of 10 CFR 960.

The State of Utah must therefore respectfully disagree with the conclusion on the suitability of the Davis Canyon site that was expressed in a recent letter from the Chairman to Senator Bennett Johnston which states that the NRC staff review of the five final EA's did not identify concerns which would call into question the suitability of any of the five sites for site characterization.

Questions of suite suitability for characterization are inherently questions related to the licensability of the site. If an issue relating to the safety of a site cannot be resolved through characterization, then a site cannot be licensed and that site is not suitable for characterization.

Both DOE and NRC staff have concluded that groundwater movement is a likely mechanism by which significant amounts of radionuclides could be released to the environment and thus represent perhaps the most significant safety concern in determining a site's licensability.

In its review of the Davis Canyon draft and final EAs, NRC staff has concluded that adequate characterization of groundwater movement in and near the Davis Canyon site may require drilling activities to be conducted within Canyonlands National Park.

Based on its own technical review, the State has

similarly concluded that adequate characterization of the site will require drilling to be conducted in the Park. The drilling activities that would have to be conducted within the Park, however, cannot be conducted consistent with the Act and existing Federal law governing the use of national parks.

The Department of Interior has advised DOE that the activities proposed for site characterization of Davis Canyon would conflict irreconcilably with the previously designated resource-preservation use of Canyonlands National Park, activities which do not even call for drilling in the park.

In order to adequately address the safety questions at Davis Canyon, therefore, DOE would likely have to conduct site characterization activities within Canyonlands National Park. Such activities, however, would disqualify the site under the siting guidelines of the Act and Federal law governing the use of national parks. Thus the site cannot be adequately characterized and is not suitable for characterization.

The State of Utah therefore urges the Commission to reexamine its position on the suitability of the Davis Canyon site for site characterization. We are continuing to pursue this and other issues of concern regarding the suitability of the Davis Canyon site and we look forward to working closely with you and your staff in addressing this and other matters related to DOE's site selection activities conducted under the

Act.

Thank you.

CHAIRMAN ZECH: Thank you, very much. Mr. Smith.

MR. SMITH: Mr. Chairman and members of the Commission, I am Ben Smith and I am here to present a summary of Governor McWherter's testimony that he would like for the Commission to hear.

I do note that Tennessee if last on the agenda today, but I can assure you that that is a real contrast from the perception that we have in Tennessee that Tennessee is on the top of the agenda of the nation to solve this nuclear waste problem.

CHAIRMAN ZECH: Before you proceed, we will put all of the Governor's statement in our record, too, and you may summarize it for us. Thank you very much.

MR. SMITH: The State of Tennessee rejects the proposal to develop a monitored retrievable storage facility at Oak Ridge. This is the position of both the Governor and the General Assembly of Tennessee.

Tennessee has rejected the MRS proposal because the DOE has failed to demonstrate a need for this expensive project. The DOE proposal is not a viable solution for the problem of isolating nuclear waste from the human environment. Rather, it is a temporary solution inappropriate for waste materials that will remain dangerously radioactive for 10,000

years.

The Nuclear Waste Policy Act provided a mechanism for the states and the tribes to be involved in participating in the process of structuring the Nuclear Waste Management System. Tennessee has participated by conducting what we think is a very rigorous analysis of the MRS proposal.

We think that we have taken a constructive stance by proposing ways to improve the nuclear waste management system. We think a better system can be devised; one which results in less risk to the public and lower cost.

Though the need for this project is gaged in large part by projections of the amount of spent fuel which will be generated by the utilities, as a baseline point, Tennessee study team undertook an independent look at the projections of spent fuel and we recommended some different assumptions for these projections.

The most significant recommendation was that an increase burn-up of fuel should be taken into account. Incidentally, DOE has only recently modified its projection assumptions along these lines.

Two years ago, DOE projections for spent fuel for he year 2000 were 20-percent higher than the Tennessee study team. Today, the difference is only two percent.

As the projections of spent fuel drop, so do the claimed benefits of the voided reactor storage costs

attributable to MRS.

You should be aware that the actual cost savings to utilities will not be the $150 to $450 million dollars earlier claimed by DOE, but the savings with an MRS of avoided storage costs will likely not exceed $100 million. The reactor storage problem may well be solved by the management at the individual reactors determining the appropriate mix of transshipment between reactors, of on site transfer between pools, of at reactor rod consolidation and dry storage.

At a number of the reactors, there will be decisions made before 1998 to consolidate fuel rods to conserve storage space. These early initiatives by the utilities are consistent with the DOE assumption that consolidated fuel was the preferred waste form for repository emplacement.

I am sure that you are already aware that several at reactor rod consolidation demonstrations have taken place. Others are planned by private firms anxious to do the job in a competitive business fashion and prove that the process can be done safely.

They are interested in making a buck off rod consolidation and they are being asked to compete with a large Federal facility to do this instead of private enterprise doing it.

There have been no licensing problems in carrying out these demonstrations. When the consolidated fuel is placed

back into existing storage pools, unit costs will be lower than for MRS fuel handling and storage.

For some reactors where further pool storage may not be appropriate, fuel either consolidated or not, can be stored at the reactor site in dry storage casks. The technology for such casks is maturing. Such a cask is already licensed in West Germany. There have been successful demonstrations here and we understand that the utilities working with the NRC are moving toward general licensing of dry storage casks at reactors without additional site specific approvals.

If this is true, this will streamline the licensing process avoiding what has been termed by DOE a morass of licensing concerns which would concern if the waste were stored at reactors. We don't foresee this type of difficulty.

Taken together, the advancing technologies and at reactor rod consolidation and dry cask storage and the diminishing projections for the volume of spent fuel which will be generated suggest that the primary functions for which an MRS was planned might well be handled routinely at the reactor sites by the time an MRS could become operational.

When all of these factors are fully considered, it is clear in our view that there is no immediate crisis of accumulated spent fuel at our reactors. We simply don't need an MRS to tide us over until a repository is ready.

Many of the nation's utilities are already involved

in advancing sound management of nuclear waste. They are proving at reactor rod consolidation and dry storage. These efforts should be reinforced and rewarded.

DOE could begin by developing a credit system for fuel consolidated at the reactors. Such a credit system would recognize the benefits that we get by having consolidated fuel moved throughout the system resulting in fewer casks and fewer shipments through the states that we are all concerned about.

DOE should concentrate on cask design that serve both reactor storage and transportation functions and an appropriate family of dual-purpose casks should be standardized by DOE for competitive manufacture.

The final point in our approved plan with a no MRS system is that we think that much more of the spent fuel should be moved by rail than is currently proposed. The benefits of such a proposal would be substantial. With large rail casks, fewer shipments would be necessary and cost and radiation exposure to the public could be reduced.

To maximize the use of this mode, DOE should become actively involved in upgrading the cask handling and shipping capabilities of some of the reactors. An important point that we make is that the non-standard shipping capabilities of the reactors should not be allowed to stand as a major constraint to creating an optimal waste management system for this country.

Tennessee studies indicate that we could reduce the amount of cask miles of shipping through the states down from 1.4 million annually with MRS to one million with a non MRS and an improved transport plan.

We feel strongly that such improvements should be made regardless of whether an MRS is built or not. If an MRS were located in Tennessee, the number of cask miles through our state and other states could be minimized by making these improvements.

We are not sure whether NRC will take the role of having a close examination of the costs versus benefits of this project, but there certainly should be an examination of this. The life cycle system cost increase is attributable to MRS climbed from two billion to $2.6 billion between December of 1985 and April 1986. Earlier this year, the estimate was reduced downward, probably the first Federal project that I eve heard of of a cost estimate going downward.

The reasons are inadequately documented. The General Accounting Office has revealed that the cost estimates do not include a lengthy list of expensive items. One such item is likely compensation to the impacted State and community would could add up to a billion dollars.

We feel that the projected economic benefits fall far short of justifying the enormous cost of an MRS. The most favorable scenario of benefits includes a repository in

Washington and produces only $650 million dollars of benefits for a three billion dollar project.

MRS cannot be justified as DOE has attempted on subjective statements of improved system management. You need to take a close look at the very tight schedule linkage between MRS and repository development and consider on top of that the fact that the MRS inventory comes up to its proposed limit in just a few years of operation and then try to visualize the claimed benefits of system flexibility and reliability and these claimed benefits are not just believable when you look at those limits.

The State of Tennessee is deeply concerned about the events of the past two years regarding implementation of the Nuclear Waste Policy Act. During this period, there as been an ominous drift away from the Act's original intent along with a false sense of urgency about the need for temporary waste storage facility.

This change is evident in the recently proposed Mission Plan amendments which move MRS to the forefront to receive spent fuel at the same time a permanent solution is delayed.

The DOE proposal is ominously accompanied by statements by some utilities and nuclear industry representatives calling for unrestricted use of the MRS. They seek to drop the schedule linkage to repository development

proposed by DOE and call for lifting the cap on MRS storage capacity.

Such actions and statements point toward a mind set that, in effect, would accept a temporary solution to a serious national problem with environmental implications for the next 10,000 years.

The question before us all, the Congress and the NRC, is whether we are prepared to take a stand now and reject the notion that we can pass this problem onto other generations or whether we are going to deal with it now.

Put simply, Tennessee wants no part of a de facto above ground repository. Tennesseeans are also disappointed that the siting of the MRS was accomplished without participation by our state. Our State was singled out before any discussions with DOE took place and were not afforded the same rights as states chosen as potential candidates as a repository site.

We do not think that the Congress intended for the MRS host state to be selected in this manner. The people of Tennessee and our state government are unconvinced that MRS is either economically or environmentally sound and we urge you to examine this proposal closely.

One final point, since NRC seems sincerely interested in the nature of the working relationship between DOE and the States and Tribes, I want to bring up one further communication

problem we have had with the DOE.

Without bringing up minor problems, I will focus attention on one at the top. Two governors of Tennessee have corresponded with the Department of Energy about the MRS proposal. Four letters have been sent. There has been no direct response to any of these letters from the governors of Tennessee.

Most recently Governor McWherter wrote Secretary Herrington on March 25th to state his early position on Mission Plan amendments in the MRS proposal. Governor McWherter's letter to Ben Rusche formally submitting comments on the Mission Plan amendments was sent on April 3. On April 27, Governor McWherter wrote to Ben Rusche again to complain about the lack of coordination with the State on changes that were made to the MRS proposal before it was sent to Congress.

There has been no response as of this date to any of these letters. I can tell you, too, from working in the Alexander Administration that Governor Alexander tried, too. After spending nearly a year involving the state agencies, university study teams and a panel of nationally recognized advisers, Governor Alexander transmitted the State's comments on the MRS proposal by letter dated February 5, 1986.

There has been no response to the two-page letter from the Governor, no response to the 67 pages of comments and questions which were prepared on a tight schedule dictated by

DOE and with over a million dollars of funding assistance from DOE. The volume of mail for DOE must be overwhelming.

[Laughter.]

MR. SMITH: We understand the need to categorize comments for mass response and, in effect, our comments on the Mission Plan amendments have been responded to in this way but DOE might set some priorities in the management of this correspondence to give special attention to those items signed by governors or the leaders of Indian Tribes.

Thank you for the opportunity to comment.

CHAIRMAN ZECH: Thank you all for your statements.

Questions from my fellow Commissioners? Commissioner Roberts?

COMMISSIONER ROBERTS: Tennessee is definitely not lowest on the list around here.

[Laughter.]

CHAIRMAN ZECH: Commissioner Asselstine?

COMMISSIONER ASSELSTINE: Just a couple.

Mel, in your comments, you talked about -- I don't know whether "bifurcation" is the right word either -- but you talked about priority consideration of issues that had the potential to be disqualifying issues for the first round sites and that might be resolved of either surface exploration or laboratory work.

I'd be interested also, Steve and Don and Ruth, if

you all have a view on the potential value of beginning to look at those issues fairly early on, rather than saying, "Let's jump in on a full-scale characterization effort that involves sinking of a shaft," if, in fact, it's possible to determine one way or the other on some of these other issues, whether they would end up disqualifying a site.

Do you think that kind of an approach makes some sense?

MR. MURPHY: Well, if you're directing the question at me, yes. Nevada has always thought that approach made some sense, going back to the days in 1983 when we were arguing about the guidelines at this very table, and, you know, that brings back the memories of the argument about the Department's double negative approach to the guidelines, you know, where the evidence is not sufficient to indicate that something is not disqualified, and that's their -- it epitomizes their very approach to this whole problem, the technical concerns, in our view, and that is, at certain points in the process, no information is better than any information, because no information does not disqualify a site.

We think that doesn't make much sense at all from a policy point of view, anymore than it does from a technical point of view, and there are -- I can't defend the technical approaches, but it seems to me a given -- I don't think any of us question the fact that there are certain areas of technical

concern shared by the State of Nevada and the Nuclear Regulatory Commission Staff which can be addressed and resolved, to use Mr. Frishman's vernacular, without penetrating the surface with an exploratory shaft.

Some of that will obviously require borehole drilling. But volcanism -- you mentioned at the hearing -- at the meeting last week, Mr. Asselstine, tectonics, some other areas that it seems to me are ripe for that kind of consideration, and I just don't understand why the Department doesn't take that approach, didn't take that approach in 1963.

We have been told -- and I don't know that there's anything official in this respect yet -- but we have indications that the Department intends to announce roughly a six-month delay in the publication of their Yucca Mountain site characterization plan, so it seems to us that they have the opportunity to advance some of these surface considerations -- that is, assuming that they can get their stop-work order lifted -- that's another issue, of course -- and perhaps deal with some of these issues.

We think there are serious possibilities that some of these questions might be resolved in favor of disqualifying the site. If that's the case, gosh, it seems to me that they ought to get about that as quickly as they possibly can.

COMMISSIONER ASSELSTINE: Yes. Steve?

MR. FRISHMAN: I'd like to respond to that, too,

maybe in a little different way.

First of all, I think what's happening, and we're seeing it, and we have been complaining about it up until now, and now it's finally sort of over the edge, if you go back to the instruction in the 1980 programmatic EIS, whether we agree or not, what it said was, up to the point of selecting sites for characterization, the Department could afford itself an assumption of suitability in the absence of any killers being seen.

Once you begin characterizing, it flops over. The Department bears the full burden of proof. To date, we are not seeing them accepting that burden. We see a continuation of the assumption of suitability. And the way I analyze it, although I haven't really explored it with them yet, is they take their guidance to continue doing that from the admonition of the Nuclear Waste Policy Act that says, "Don't characterize any more than you need to."

So I think they have willingly built themselves into a trap. I think for the Deaf Smith County site, certainly going out and drilling some more boreholes would make a great big difference. They haven't got a hole in that site. They don't even have one near it. They don't even know if they've got enough salt at that site in depth for a repository. Of course, they don't say what it takes to have one either.

But they understand by their own choice little or

nothing of the Ogallala Aquifer, little or nothing about the Santa Rosa Aquifer, since they deferred studying that prior to naming the site.

So, yeah, a number of the questions, if they turn out not to be killers, you have a tremendous leg up on site characterization. You know a lot more about what you might want to do in the way of building a shaft and designing it, just for safety purposes, and also to outline what studies might be necessary.

I see the whole shaft approach -- and I've been calling it this lately; I seem to be the one who puts names on things around here -- and I've been calling it the Iwo Jima approach, because that's what it looks like to me: Get that shaft there and build your case around it.

COMMISSIONER ASSELSTINE: Don?

MR. PROVOST: We've been proposing and discussing what we call the total system approach for a long time, and at the recent hydrology meeting, this was a major discussion item. And again, in this case, a very strong case that NRC and ourselves believe that there's significant likelihood that groundwater travel time would be less than that required by NRC, that could be answered by getting some more information on effective porosity.

It was interesting. The attitude of one of the members of the team was that, well, that wasn't our purpose.

Their purpose was to get Hanford through the gate, and so that, to us, exposed a great feeling of what their purpose was. It was not to do that. Their purpose was to get it through the gate. That was the purpose of the hydrology program.

We're developing a presentation that would put together all the tests that we think would be necessary for this type of approach, and we'd be happy to share that with you when it's finished very shortly.

COMMISSIONER ASSELSTINE: I think that would be very helpful.

Ruth, I don't know if you've got anything?

MS. STOREY: We share some of those same concerns and have expressed them in comments to DOE.

COMMISSIONER ASSELSTINE: Lando, it does seem to me that this is an idea that the Staff may have hit on that may make a lot of sense, and I think it may be worthwhile, particularly in view of the comments of the states, to encourage the Staff to continue to explore that issue with DOE.

I know we raised it last week, and Ben said he'd take a look at it.

CHAIRMAN ZECH: Well, I'd like to establish to take a look at it, too. I think they're aware of what took place last week, too, and since today's discussion has emphasized it, I agree that the Staff should look at that and get back to us.

MR. MURPHY: You know, I think another -- with your

permission, Mr. Chairman --

CHAIRMAN ZECH: Sure. Go right ahead.

MR. MURPHY: Another consideration ought to be, you know, in all frankness, it's likely to be at least two years before Congress coughs up enough money for them to conduct their underground site characterization program under any circumstances. It would be time wasted, it seems to me, if they don't set about disposing of some of these issues that can be disposed of from the surface during that period of time.

COMMISSIONER ASSELSTINE: One other question. Several of you talked about concerns about DOE taking shortcuts in the process, the lack of conservatism that we've talked about already, the absence of meaningful consultation and cooperation, and unwillingness to heed your comments and concerns and, to some extent, ours as well.

I get the sense sometimes that our approach is, well, we have this ultimate barrier at the end of the process, which is our licensing process and making our license decision, and we can warn DOE ahead of time of these potential pitfalls, and if they don't heed those warning, then ultimately they'll pay the price down the road, and we don't have to be quite as aggressive as we otherwise might be at this early stage in the process.

I'm interested in whether you sense that kind of an attitude as well, whether you think that's a wise course to

take, and what more we could do at this stage in the process to try and aggressively pursue some of these concerns that our Staff has, that you all have, about the direction that the DOE is going in the program to try and maybe get some earlier responsiveness to these kinds of concerns.

Steve?

MR. FRISHMAN: In partial response to that, it's one of the pieces that I didn't talk about a few minutes ago, has to do with the whole process of reviewing the SEP. And I think your Staff has already told them that it's going to take, to review the SEP -- and this is not for the updates -- a minimum of about six months, maybe even longer. But there's also been an agreement to review that part related to the shaft in about three months, so they can get going with the shaft.

And we spent -- your Staff and our technical people and some of us as Program Managers spent some time about a year ago with DOE working out an arrangement, how all this could happen. The umbrella on the whole thing was, DOE was willing to proceed at risk, and we were very unhappy about having to sit there over a day and a half and hammer out an agreement on how many pages of rationale they needed for study plans before they produced the SEP, if they wanted to work on a site.

It seems to me that if the Commission wanted to become more aggressive, this is one area where you could just insist: We must review the entire SEP in order to assure

ourselves that there are not incompatibilities between those aspects of the shaft and studies associated with the shaft.

We discovered in the meeting -- one of the recent engineering meetings that I said I was so please with -- one of the things we discovered, again your Staff and mine together, I think, was that DOE seemed to be mush more interested in the building of the shaft, the construction and mining aspects of it, than they were in the testing aspects.

The shaft is a test facility, and this is something -- the question just kept coming up, all the way to the point of their finally having to agree to some information that we had, and that's when you use freeze wall construction, based on the way they had planned to take the shaft down, it's unlikely you can keep a working wall usable for any kind of data collection for more than a day to about three days.

That didn't seem to be of concern. The concern was to get to 2605 or whatever the number was that day, because it shifted by 75 feet that day, too.

I think if you're looking for a place to be constructively aggressive, what you can do is begin trying to use what leverage you have from the technical side, convincing the Department of Energy that it serves no one for them to proceed at a level of risk that, in fact, ultimately impacts on the judgments the Commission is going to have to be making, on the judgments that the states and tribes are going to have to

be making, regarding disqualifications and regarding disapprovals.

COMMISSIONER ASSELSTINE: Yes, Ben?

MR. SMITH: I think the DOE has such a tremendously difficult job to do to put in place the waste management system for the country, in order to do that, they really should have an image of being technically unassailable in what they're doing.

In looking at a basic feature of designing the program -- that is, projecting waste volumes for the future -- we found that some of their assumptions were outmoded, didn't fit with industry practice, and pointed that out. Later, DOE adopted some of the recommendations for projection assumptions of our Tennessee study team.

It seems to me that with the technical part of the program so basic to the design of the program, that NRC might want to look into those basic assumptions surrounding the system and evaluate the design parameters for the whole system. You're going to be involved in it later on, and I'm sure you're going to want to feel comfortable that it makes sense for the country.

I don't know to what extent NRC has already been involved in the waste projections, but I think that's a field that's ripe for review.

MR. MURPHY: I guess I would pretty much second those

remarks. One way -- you know, I guess I can't force myself to leave the room after patting you on the back to criticize you a little bit as well -- one way would be to somehow find a way to accelerate a little bit your own regulatory rulemaking process.

We, for example -- I cite in my prepared remarks RPRM 60-2, which was filed in 1985 and has yet to be acted on. Those kinds of things can give signals, clear signals, to the Department of Energy as to which way they ought to proceed, lest they risk falling off the precipice.

Another way I would suggest, I guess, we -- Mr. Frishman alluded to it -- I like to call it -- I believe I called it in my prepared remarks "the integrated site characterization plan," the SEP itself, not in a separate document, the SEP itself must, in our view, address the technical, economic, social, and environmental aspects of site characterization.

If I were a one-man staff of the Commission and if the Department of Energy didn't present me with such an SEP, I would not begin the review. I would just say, "This is not a complete document. The timeclock hasn't even begun to run yet. Whether it's three or six months is irrelevant. You bring me an integrated SEP, or we aren't even going to begin reading it," things of that nature.

It's a ticklish job to, you know -- I cautioned the Commission with respect to the NAS, just sitting in your seats

as independent regulatory Commissioners is a difficult and delicate task, and you can't forecast your actions one way any more than you can the other. But there are some things, I think, some areas were you could give some little more clear direction.

COMMISSIONER ASSELSTINE: Don?

MR. PROVOST: I agree with the earlier discussions and I think that one of the things that is very basic to a review like this is early release of data to both NRC and states and tribes. We are seeing problems now, as I mentioned earlier, on the iodine data. It's not being released as promised. This was a very basic issue at Hanford, how did that material get down that deep that quickly. That should be a prerequisite. They just aren't producing the data. This is very clearly Appendix VII problems and so on, that just isn't happening and should be a part -- SCP will exacerbate problems in SCP review if this type of information doesn't come quickly.

COMMISSIONER ASSELSTINE: I asked Ben last week about his assessment of where we stood on quality assurance, the quality assurance program. Don, you mentioned the stop work orders are still in effect. I would be interested in your assessment and also Steve's and Mal's of where you think the DOE QA program is now, particularly given the importance of that as a prerequisite that DOE has acknowledged before they will proceed to present us with their site characterization

plans.

MR. PROVOST: I think this week they probably lift a partial, a partial lift on the work order which allowed them to do more specific work on the wells and so on. They still have quite a ways to go to get the project in shape. My major concern is one of the earlier chapters of the SCP that we received had to do with quality assurance and the problems that were brought up in our review of the site characterization report in 1982 and NRC comments at that time are still not resolved. Those are the organizational accountability within headquarters, and especially after May 28th decisions and how those were made. That becomes a very critical issue to us, that accountability in headquarters and their QA program.

The preliminary chapters of the SCP still show the same situation that was there in 1982 that was complained about by all of us in 1982.

COMMISSIONER ASSELSTINE: Steve?

MR. FRISHMAN: With the salt program, first, the stop works were not necessary because work wasn't moving any way. I anticipated such a question and asked one of my staff people and got a very clipped answer, slowly improving but still in disarray. The projects are all apparently different. Headquarters in some cases is ahead of the projects on quality assurance, just planning, and in some cases, they are behind. The quality assurance people from one site to the next disagree

with each other. Headquarters tends to disagree with all of them sometimes.

We have committed to participating in that to whatever extent we can, to try to get a quality assurance program that at least becomes one of the parts of the program that is not contentious and shouldn't be contentious.

COMMISSIONER ASSELSTINE: Yes. One quick question for Ben on the MRS. Ben, you talked about the need for justification for the MRS and your concerns. It always struck me that if there was a benefit to be gained from a monitored and retrievable storage facility, it was in providing some relief from the kinds of pressures to move ahead on an accelerated schedule for a repository, pressures generated largely because of utilities, and for providing that kind of relief, what you did in essence was provide sufficient time to do the repository job properly and thereby help ensure that the MRS would not become the de facto final resting place for the waste. Other countries appear to take that kind of approach. The Swedish approach is largely structured along those lines.

I am curious as to whether you see a benefit to be gained that way, in that kind of role for the MRS, not so much a question of absolutely can you safely store the spent fuel on site for extended periods of time but rather a mechanism for relieving some of these pressures that might drive a schedule in a way that jeopardizes the success of the repository program

itself. I would be interested in your reaction to that.

MR. SMITH: Obviously, storage is the answer to relieve the pressures on the repository system, where that storage is to take place in the system, where it makes sense to store the fuel is the question. As we see the technology developing for dry cask storage at the reactors and we see the successful demonstrations of that, we see no reason to have the added cost of a centralized facility to move the waste twice, once from the reactors to storage and once from storage to the repository. It makes a lot more sense to move it once in large rail casks, reducing the shipments and cask miles through the states, rather than seek to relieve the pressure by building one centralized facility.

COMMISSIONER ASSELSTINE: Thank you.

CHAIRMAN ZECH: Commissioner Carr?

COMMISSIONER CARR: I have no questions, Mr. Chairman.

CHAIRMAN ZECH: There have been a lot of questions asked and certainly we want to make sure they get answered. I would encourage you and I presume you are doing this anyway, the questions you have and the things you are bringing up, you are working closely with our staff and if you are not satisfied, I'm sure you won't hesitate to write to the Commission. We want to respond to you. Some of the things that have been brought up here are very important. I don't

want to miss anything that you are concerned about.

You have brought not only some important questions but also some important suggestions and thoughts. Be sure those thoughts do get to the staff and to the Commission if you think it is necessary. I don't think we need to wait for these periodic meetings to bring up some of the very important things that were brought up here today. I hope you will continue to let us work with you.

The impression I have, not only from the Commission but the staff is they are working closely with the states and Indian tribes. I think it is extremely important that communications be open. Some of the comments we had earlier I think apply equally again. I don't want to be repetitive. The willingness and the openness and the great respect we have for what we are trying to do and the responsibilities we are carrying out, it is extremely important. We want to conduct it with integrity and openness and as we approach the licensing phase, at that point, we have great responsibilities here in the Commission.

We hope you will be free as you have been to give us your thoughts and your candid views. I know in your own organizations you have a considerable amount of technical competence. You live in the area. You have a tremendous responsibility to the people you represent.

We feel those same responsibilities. We want to

continue to work very closely with you and continue to have these kind of meetings. We want to make sure we keep you informed. Please don't hesitate to ask the questions on a daily basis if necessary rather than waiting for these meetings. I feel confident you do, but I just wanted to emphasize that. We solicit your questions. We want to work very closely with you as we move ahead on this very, very important project for all the citizens of our country.

Are there any other comments from my fellow Commissioners?

COMMISSIONER ASSELSTINE: Lando, I don't know if the staff has considered how they want to treat these quarterly reports to the Commission on the progress on the program. It might be useful, along the lines you just suggested, to share those with the state folks as well. That way, they have a sense of what we are hearing in terms of the progress of the program every three months or so and they will get a sense of what issues are important to the staff and what issues are of interest to the Commission as the program moves forward.

CHAIRMAN ZECH: We will ask the staff to take a look at that.

COMMISSIONER ASSELSTINE: I think it is in the interest of providing that open communications.

CHAIRMAN ZECH: It sounds like a good suggestion.

COMMISSIONER CARR: I think we should share this

transcript with the DOE.

COMMISSIONER ASSELSTINE: Absolutely, especially some of the suggestions.

MR. MURPHY: When we sign our grants, we have to promise to provide them everything we create, but the same commitment doesn't necessarily flow back to us.

COMMISSIONER CARR: Speaking of funds, do you have the same problem the tribes do with funds?

MR. MURPHY: I have a 5:00 plane to catch, Commissioner Carr. Yes, we have a serious continuing funding problem with the Department which I don't need to go into detail on.

COMMISSIONER CARR: I didn't think I had to ask.

CHAIRMAN ZECH: I thank all of the states and the affected Indian tribes.

MR. JIM: Mr. Chairman, in appreciation again for this opportunity, this may be the last time we will address Mr. Asselstine as Commissioner. We hope to see him in the future and we wish him luck, we thank him for his contribution not only to this Commission but to the nation. We thank you all very much.

CHAIRMAN ZECH: Thank you very much for those comments. We appreciate that. Commissioner Asselstine has indeed had a special role in representing the Commission on the state programs, as you know. We are all grateful to him for

that contribution, not only the states and Indian tribes, but the staff and the Commission also appreciates the special interest he has shown in that role he has played in the past few years.

COMMISSIONER ASSELSTINE: Thank you.

CHAIRMAN ZECH: With that, we stand adjourned.

[Whereupon, at 4:10 p.m., the meeting was adjourned.]

REPORTER'S CERTIFICATE

This is to certify that the attached events of a meeting of the U.S. Nuclear Regulatory Commission entitled:

TITLE OF MEETING: Meeting with States and Affected Indian Tribes on the Status of the National High Level Waste Program

PLACE OF MEETING: Washington, D.C.

DATE OF MEETING: Tuesday, June 16, 1987

were held as herein appears, and that this is the original transcript thereof for the file of the Commission taken stenographically by me, thereafter reduced to typewriting by me or under the direction of the court reporting company, and that the transcript is a true and accurate record of the foregoing events.

Marilynn M. Nations

Ann Riley & Associates, Ltd.

6/16/87

SCHEDULING NOTES

TITLE: MEETING WITH STATES AND AFFECTED INDIAN TRIBES ON THE STATUS OF NATIONAL HIGH LEVEL WASTE PROGRAM

SCHEDULED: 2:00 P.M., TUESDAY, JUNE 16, 1987 (OPEN)

DURATION: APPROX 1-1/2 HRS

PARTICIPANTS: PANEL 1

YAKIMA INDIAN NATION — 10 MINS
- RUSSELL JIM, MANAGER
  NUCLEAR WASTE PROGRAM

UMATILLA INDIANS — 10 MINS
- WILLIAM BURKE
  NUCLEAR WASTE PROJECT MANAGER

NEZ PERCE TRIBE — 10 MINS
- RONALD T. HALFMOON, MANAGER
  NEZ PERCE NUCLEAR WASTE POLICY
  ACT PROGRAM

PANEL 2

STATE OF WASHINGTON — 10 MINS
- DON PROVOST
  TECHNICAL ISSUES MANAGER
  OFFICE OF HIGH LEVEL NUCLEAR
  WASTE MANAGEMENT

STATE OF NEVADA — 10 MINS
- MALACHY MURPHY
  SPECIAL DEPUTY ATTORNEY GENERAL

STATE OF TEXAS — 10 MINS
- STEVE FRISHMAN, DIRECTOR
  NUCLEAR WASTE PROGRAMS OFFICE

STATE OF UTAH — 10 MINS
- MS. RUTH ANN STOREY, DIRECTOR
  UTAH HIGH LEVEL NUCLEAR WASTE OFFICE

STATE OF TENNESSEE — 10 MINS
- BEN SMITH
  EXECUTIVE ADMINISTRATIVE ASSISTANT
  ENVIRONMENTAL POLICY GROUP
  DEPARTMENT OF HEALTH AND ENVIRONMENT

STATEMENT OF RUSSELL JIM
MANAGER, NUCLEAR WASTE PROGRAM
YAKIMA INDIAN NATION

before the

UNITED STATES

NUCLEAR REGULATORY COMMISSION

"Status of the High-Level Radioactive Waste Disposal Program"

June 16, 1987

Mr. Chairman, members of the Commission--

My name is Russell Jim. I am Manager of the Nuclear Waste Program of the Yakima Indian Nation. I would like to thank you for this opportunity to present the views of the Yakima Nation about the status of the federal nuclear waste disposal program.

I would like to discuss the very different conclusions that are reached by the respective parties about the suitability of the sites DOE has recommended for characterization. We are convinced that the process that has been used to select sites for characterization--and the results of that process--are seriously flawed. Looking at the same information and process, experts who are optimistic--including the Commission--conclude that there is

no reason not to proceed with the sites recommended by DOE for characterization.

What is the basis for these differences in conclusions? All of the parties agree on one point: Not enough is known about the sites at this time to make conclusive determinations about their suitability. The differences of opinion revolve around the appropriate degree of conservatism to use in making the assumptions that are necessary to fill in the gaps in our present understanding. DOE almost invariably makes optimistic assumptions. DOE's largely unfounded conclusion is that all the sites are suitable for repositories.

The NRC, in contrast, has identified significant issues for all of the sites which must be resolved if they are to be found licensable. Significantly, the Commission's official stated position appears to be that if these issues are not resolved, they could prevent licensing of any of the sites. In spite of this presumption, the Commission concludes that there is no rea-

son not to proceed with characterization of the three recommended sites.

The Commission apparently supports characterization of the recommended sites because it cannot now be determined conclusively that any would be unsuitable. We hold the more conservative view that the adverse conditions at some if not all of the sites are sufficiently numerous and serious to dictate their elimination from consideration. We believe that the Commission should not be supporting characterization of the recommended sites when by its own admission there are potentially disqualifying conditions at all of them. A conservative program with a comprehensive national screening using truly selective siting guidelines could identify sites which the Commission could endorse more enthusiastically. Instead of having to say that significant issues could disqualify any of the sites, NRC should be able to say that it cannot identify any issues that would prevent licensing of the recommended sites.

DOE takes the approach that it need not find the best sites, but rather only "suitable" ones. DOE looks at these sites and sees no significant problems. The Commission looks at these sites, sees significant problems, and concludes that they should be characterized to resolve the problems. Tribes and states, and most of their citizens, look at the sites, see the same problems, and conservatively conclude that since we could obviously do much better, we should do so.

Which approach should govern implementation of the waste program? If public confidence in nuclear waste disposal is truly crucial to its success, as Congress declared in the NWPA, then the implementing and regulatory agencies should adopt the conservative approach urged by the states and tribes. The reason for this is simple: the American public does not share DOE's optimism about this enterprise. The people are, in general, very skeptical about the ability of our institutions to safely manage and dispose of hazardous materials.

Because of its skepticism, the public will never accept nuclear waste disposal unless it is convinced that this activity is being carried out as carefully as possible. The people of the Yakima Indian Nation, and the public as a whole, want assurance that the federal government is truly working to find the best possible sites to dispose of these materials.

What they see instead is a program that refuses to accept the need for conservatism, and which could obviously have come up with a much better slate of sites. They see sites that are selected because the government already owns them, rather than because of their favorable geologic characteristics. They see that those sites have many common sense problems, like flowing groundwater, nearby rivers, valuable aquifers, and earthquake faults. They see the DOE doing a comparative evaluation of the sites, then choosing for characterization the site--Hanford--that ranks in last place for virtually all considerations.

The advantages of a conservative approach hold true even if the scientific optimists are correct in their assertion that

there are no significant technical impediments to successful waste disposal, but rather only perceptual, or political impediments. Even if perceptions are the only real problem, it should be apparent that the government and industry cannot alleviate the widespread perception that nuclear waste disposal is unsafe by simply asserting the contrary, and always making the most optimistic assumptions. Indeed, such a course of action only worsens public skepticism.

The present opposition of tribal and state governments to the implementation of the nuclear waste program is simply a reflection of the views and concerns of their citizens. So long as the people see a program that is based on unbounded optimism (which they do not share), and that rejects the need to try to find sites for repositories that are among the best that can be found, they will never accept the program as safe. Consequently, their tribal and state governments will reflect that skeptical attitude, and it will be very difficult for the program to succeed.

In his remarks to you last week, Ben Rusche mentioned the participation of affected states and tribes at the recent BWIP hydrologic testing meeting, and stated that consensus had been reached that DOE's planned tests were appropriate. While we agree that there was a consensus that the meeting was productive and cooperative, there was not technical consensus on the adequacy of the test plans. Technical representatives of the Yakima Indian Nation raised numerous issues concerning the number and location of planned tests which have not yet been addressed. We look forward to further discussion with DOE about these issues, and expect that NRC staff will also be interested in their resolution prior to the commencement of testing.

In conclusion, we sincerely believe that the Commission would in the long run be more helpful to the success of this program if it took a more involved and demanding approach to site selection, rather than deferring to DOE's excessively optimistic approach.

CONFEDERATED TRIBES OF THE

UMATILLA INDIAN RESERVATION

BEFORE THE

NUCLEAR REGULATORY COMMISSION

June 16, 1987

Commissioner Zech, and Members of the Commission, my name is Bill Burke and I am the Director of the Umatilla Nuclear Waste Study Program. The Umatilla Tribe appreciates this opportunity to appear before the Commission and to present our perspective on DOE's repository program. We have been reviewing the transcripts of your meetings with Ben Rusche the last few years and have found his comments on progress in the repository program to be consistent with many of DOE's favorable findings in the EAs in that they are overly optimistic.

As an affected Indian tribe under the NWPA, the Umatilla Tribe has broad authority to conduct independent oversight of DOE's repository program and to insure the Tribe's interests, namely our treaty rights, are protected. Our involvement in the repository program over the past 4 years has generated considerable tribal cynicism and distrust of DOE's implementation of its duties under the NWPA. DOE's manipulation of the site selection process for the first repository and their "indefinite postponement" of the second repository evidenced a callous disregard of their statutory obligations under the NWPA and of the need to make siting decisions based on technical merit rather than political and programmatic expediency. The resulting public outcry, the lawsuits and the battle lines drawn by host states and affected Indian tribes have doomed the development of public confidence in nuclear waste facilities that Congress found essential. If site characterization proceeds in a manner similar to site selection, and we see no reason to suspect it won't, then the NRC can count a contentious and bitterly adversarial licensing proceeding. We share the NRC's

stated objective of seeking to have licensing issues resolved satisfactorily prior to the licensing hearing. Our experience in the repository program to date, however, does not inspire any confidence that that will be the case.

Reports from the NRC staff substantiate our concerns. Because of DOE's failure to conduct the repository program conservatively, there is a strong need for vigorous oversight of DOE's characterization activities by the NRC and affected parties. We have been gravely concerned by DOE's publically stated working hypothesis at the outset of the site characterization that each of the 3 sites will be found suitable for development as a repository and that each site will easily meet the EPA standards.

Your staff has reviewed DOE's Environmental Assessments and their analysis challenged important DOE findings and conclusions for the first repository sites. The NRC comments on the Hanford Environmental Assessment found that many of DOE's findings of favorable site conditions were based on sparse data that could just as easily support alternative findings adverse to DOE's interpretation. The NRC characterized many of DOE's favorable findings as "premature", "extremely tenuous" and reached by means other than a "conservative approach." The NRC claimed many of DOE's Environmental Assessment conclusions were "overly favorable" or "optimistic." The findings and conclusions that were the subject of your staff's critical review went to the heart of Hanford's containment capability. They included concerns about groundwater travel time, the tectonic suitability of the site, earthquake swarms, and life expectancy of the waste package and the potential for human interference in the vicinity of the site because of the presence of geothermal resources.

The NRC made similar critical comments about the Yucca Mountain and Deaf Smith sites as well. The NRC report concluded that DOE's claim concerning the superior performance of each site in meeting the EPA standard was "overly optimistic." Looking ahead to site characterization, your staff sounded the alarm about where DOE's repository program could lead. The staff warned:

"The significance of the above concerns is to DOE's ongoing preparation of the site characterization plans and eventually to site characterization activities, since both the general over optimism as well as the specific concerns could result in inadequate testing programs and inadequate information at the time of licensing."

There are several particular concerns we have that suggest your staff's warning is appropriate. The Umatilla and Nez Perce Tribes, and our consultants, are actively engaged in an investigation of the presence of commercial quantities of oil and gas resources in the vicinity of the Hanford site which could disqualify the site under the siting guidelines. Oil and gas exploration activities around Hanford are increasing in an era of depressed exploration budgets. DOE's dismissal of the issue in the Hanford Environmental Assessment based on the "current economics" of this rapidly depleating, nonrenewable resource of great potential value surrounding a repository required to isolate radioactive wastes for thousands of years defies reason.

In December 1986, Amoco Production Company requested participation from all interested parties, including the Tribe, in laboratory analyses of a number of well cuttings from two of the deep Shell tests, the Bissa # 1-29 and the Yakima Minerals #1-33. The Tribe received a grant modification from DOE to expend $3,000 to participate in this research and be able to utilize the resulting data. In May 1987, the CTUIR and the Nez Perce Tribe, sponsored a workshop to review a number of logs of Hanford area wells. The Yakima Nation, the states of Washington and Oregon, and the NRC attended this workshop. The logs reviewed at this time showed that considerably more methane gas was present in the basalts and their interbeds than was understood from the literature. A paper by a Rockwell geologist (Deacon R.J., 1987), presented several days after this workshop, stated that data from the three deep Shell wells

indicated that:

> ...the structure of sub-basalt sediments...suggests that entrapping conditions may have occurred that could contain major hydrocarbon reserves.

In F.Y. 1988,. the CTUIR plans to develop study plans for hydrogeology and for structural geology/seismotectonics. The BWIP SCP, DOE documents, and information from outside DOE will provide a basis for determining what types of studies will be done.

Other affected parties, and organizations as well as NRC staff, have worked on hydrogeology and seismotectonic issues again finding DOE's claims over optimistic. We feel the studies we plan will help the Tribe understand NWPA issues and we urge the NRC and their staff to work closely with the Tribe on these critical issues. Let me remind the commission of the close working relationship the NRC and all affected parties had especially with the Tribe during the Environmental Assessment Process. We encourage NRC and their staff to work with us again by sharing comments on the SCP. Our team of consultants and NRC's consulting team should meet especially during NRC's Site Characterization Analyses (SCA) phase. We desire early and close communications with NRC's staff,

Both the NRC and the Tribe should be sure DOE adequately addresses all technical issues and not skew results for our people and environment.

Addressing these technical issues will require that DOE implement conservative site characterization program that assumes nothing and one that purports to disprove disqualifying conditions and that conservatively analyzes each sites performance. In addition, DOE must open the process up to close inspection and greater involvement by the NRC and the affected parties. We have found DOE to be extremely reluctant to accept the broad authority of affected parties under the NWPA. The Tribe has confronted DOE's reluctance in C & C negotiations over the last two years which we terminated last January. As you are aware Congress withheld $79 million of DOE's 1987 budget pending Congressional certification of DOE's

progress in negotiating C & C agreements. The CTUIR has withdrawn from C & C negotiations because of DOE's insistence on narrowly interpreting NWPA provisions concerning the authority of affected Indian tribes. A related issue of mutual concern to the NRC and the Tribe continues to be an issue with our on-site representatives at Hanford. A NRC report evaluating the effectiveness of your on-site licensing representative program concluded:

> "Through the OR [On-Site Representative] program has provided the staff with an exclusive source of important information, DOE and DOE Project representatives have not been giving the ORs the access to records, meetings, personnel, and facilities intended in Appendix 7 to the Site-specific Agreement and needed to be fully effective. Interactions with DOE and DOE Project representatives have been the least effective at BWIP where the OR has been restricted from access to some draft information, select meetings, and other interactions with various DOE Project representatives. The restrictions imposed by DOE/Rockwell can be largely attributed to differences in interpretation of Appendix 7 which affect not only the OR program, but interactions with NRC headquarters staff as well.

The report goes on to note that the Nez Perce and Umatilla representative at Hanford is experiencing similar problems.

> "The Nez Perce/Umatilla Indians already have such a representative at BWIP, with whom the BWIP OR has frequent interaction. Difficulties that have been encountered in this area are primarily due to DOE reluctance to release or make information available for staff review."

For instance, both the NRC and the Umatilla/Nez Perce On-Site Representatives were not allowed to attend a Hydrologic Task Force meeting and other internal meetings at Rockwell (Westinghouse now). It is the combination of DOE's flawed implementation of the repository program since the NWPA was enacted and their failure to permit the affected parties to assume the level of involvement and participation Congress intended that has brought this program to its knees.

In summary, the Umatilla Tribe desires a close working relationship with NRC. Like NRC, we feel the DOE has been overly optimistic in their approaches to technical issues. Public confidence in DOE's performance has eroded to the point of virtual nonexistence primarily due to a siting process that is deraged and a deraged schedule. Both the NRC on-site representative and the Umatilla/Nez Perce On-Site Representatives have had difficulty entering critical DOE planning meetings. We feel the NRC and the Tribe need to stand firm on their resolve to improve DOE's performance under the NWPA even if it means going to Congress for a remedy.

UMATILLA NUCLEAR WASTE STUDY PROGRAM

NRC BACKGROUNDER

Summary-

The Confederated Tribes of the Umatilla Indian Reservation (CTUIR) has been involved in the High-Level Nuclear Waste Program since 1983 in developing technical information to prepare the Tribe in its understanding of high-level nuclear waste issues of particular importance to the Tribe. It is felt that as these studies continue and issues become better defined, that the Tribe will put itself in a position to participate in a meaningful and informed way at the NRC licensing hearing, if the Hanford site progresses to the licensing phase.

1.0 Scientific and Technical Foundation of the NWSP

The Nuclear Waste Study Program (NWSP) was established by the CTUIR after careful consideration of its roles and responsibilities as an "affected Indian tribe" under the Nuclear Waste Policy Act (NWPA). Upon its designation by the Secretary of Interior as an affected tribe in the Fall of 1983, the CTUIR commissioned a "scoping study" by the Tribes prime contractor. This scoping study included a regional characterization of tribal resources potentially affected by a nuclear waste geologic repository at the Hanford site which includes portions of the Tribe's treaty-protected possessory and usage rights area. This study also evaluated various modes of tribal participation in the NWPA vis-a-vis the U.S. Department of Energy (DOE), U.S. Nuclear Regulatory Commission (NRC), and other cognizant federal, state, and tribal governments.

The CTUIR scoping study resulted in a determination by the Tribe that is participation in the NWPA should be based upon direct, active involvement by tribal governmental leaders in all pertinent aspects of the siting, technological developments, and decision-

making processes associated with its role as an "affected Indian tribe" under the Act. Recognizing that it did not possess the necessary scientific and technical resources to participate on a "one-to-one" basis with the vast technological resources of the DOE, the Tribe committed itself to building a technical team of consultants which would be capable of reviewing, monitoring, and evaluating the extremely large body of technical data and information which would be generated by DOE and its contractors and by other federal agencies throughout the NWPA siting and development process.

2.0 Activities and Accomplishments

Since its foundation, the Umatilla NWSP has proceeded from the "pre-characterization" phase to the present "site characterization" phase which is designed to engage the Tribe fully in cooperative intergovernmental review, monitoring, and other participation processes as well as in the conduct of independent tribally sponsored technical analysis, impact assessments, and public informational activities. During the period 1984 until mid-1986, the NWSP was oriented to DOE's precharacterization site evaluations and included a variety of related tribal efforts. The Tribe performed technical reviews and submitted formal comments on several key NWPA documents during the precharacterization period. These included:

- Draft Mission Plan for the Civilian Radioactive Waste Management Program
- "Proposed General Guidelines for Siting of Geologic Repositories"
- Draft Environmental Assessment for the Hanford Site, Washington

Several hundred scientific reference documents, associated with the Draft Environmental Assessment (DEA) and other DOE and NRC documents, were reviewed by the Tribe's technical team during this period. Other major NWPA documents, including the Office of Civilian Radioactive Waste Management (OCRWM) draft Transportation Business Plan and draft Transportation Institutional Plan were also

reviewed and formally commented upon during this precharacterization period. The Tribe provided written comments also concerning the Draft Environmental Impact Statement for Hanford defense waste disposal alternatives which have implications for the NWPA repository program.

Meanwhile, the Umatilla NWSP was preparing contingency plans for its larger and long-term roles in the event that the Hanford Site was formally recommended for site characterization. Assisted by its technical contractor team, the Tribe evaluated various approaches to its site characterization monitoring efforts and adopted a strategic plan for participation.

Immediately following the May 28, 1986 decision by the Secretary of Energy and the President recommending that the Hanford Site be among the three sites to be characterized, the Tribe took steps to convert its contingency plans into an "action plan" which specifies the major tribal projects to be conducted during the site characterization phase. Its Comprehensive Program Plan was completed in October 1986 and was submitted as a "deliverable" to DOE. This strategic plan describes a program of work to be performed by the Tribe, its program staff, and its technical contractors for the review and evaluation of DOE activities and for independent environmental, socioeconomic, and cultural assessments.

The NWSP Comprehensive Program Plan provided for development of specifc project plans which were also issued as "deliverables" in October 1986. These plans included:

- Environmental Surveillance Plan;
- Socioeconomic and Cultural Assessment Plan; and a
- Preliminary Risk Assessment Method Plan.

Another major project of the Umatilla NWSP is the analysis of site characterization activities by DOE. To facilitate effective monitoring of the Basalt Waste Isolation Project (BWIP) at Hanford throughout the site characterization phase, the Umatilla Tribe and the Nez Perce Tribe entered into a mutual assistance agreement which provides for a qualified full-time on-site representative at Hanford. This position and an office was established in Richland, Washington in mid-1986.

To date, the Tribe has utilized a highly qualified technical contractor team consisting of geologists, hydrogeologists, nuclear engineers, economists, environmental scienctists, and other professional specialists in virtually all aspects of its program. This technical team has worked continuously since 1984 in reviews and analysis of DOE technical developments and has provided scientific services for the planning of tribal projects. As proposed in its FY 1987 grant application to DOE, this existing team would be expanded to include approximately 12 additional part-time or full-time professional consultants to accommodate the much greater workload for the BWIP site characterization phase and associated tribal assessment activities.

One of the significant examples of the Tribe's "oversight" activities concerning DOE siting efforts has been a recent study initiated by one of the Tribe's senior consulting geologists (who also served as the interim on-site tribal representative at Hanford) related to potential oil and gas resources in the Hanford area. Section 112(a) of the NWPA of 1982 requires the DOE to prepare "general guidelines for the selection of sites in various geologic media." Section 112(a) then states that:

> ...Such guidelines shall specify factors that qualify or disqualify any site from development as a repository; including factors pertaining to the location of valuable natural resources,...

The most likely natural resources to be found in or below the Columbia Plateau basalts in the Hanford area are oil and gas, ground water, and geothermal resources.

On page 6-184 of the Hanford Environmental Assessment, released on May 28, 1986, DOE states that, "the presence of hydrocarbons from beneath the basalts is, at best, speculative." On the preceding page, however, DOE contradicts this conclusion by stating that Shell Oil and Atlantic Richfield have completed and tested four wells in the area, although they were "deemed noncommercial." In at least one of these wells, a significant amount of gas was produced, but current prices were too low to support major field development. These wells were deep and very expensive to drill in the tough plateau basalts, but exploration in the area continues at a rapid pace. In a period of low oil and gas prices, combined with a nationwide decline in oil company budgets for domestic exploration, this activity is particularly significant.

The interest in the Hanford area as a potential oil and gas exploration target zone is also shown by the requests for exploration by oil companies. The Bureau of Land Management (BLM) and the Washington Division of Geology and Earth Resources have received over 150 lease applications for areas within the Hanford Reservation. During 1986 alone, more than 250 line miles of seismic exploration data were collected in the Hanford area. A fifth wildcat exploration well was also granted a permit to drill to 15,000 feet, a very expensive undertaking with current exploration budgets.

As stated by DOE in the Hanford Environmentla Assessment (EA) (page 6-183):

> "A small, depleted, low-pressure, natural gas field in basalt that was in production from 1929 to 1941 is present on Rattlesnake Mountain at the southern edge of the Hanford Site (11 kilometers (7 miles) south of the reference repository location). At current economics, the old Rattlesnake Hills gas field is noncommercial."

As in the previous example, the DOE conclusion on repository disqualification is based on "current economics," not on long-term supply/demand curves for natural gas resources. Basing a disqualifier for repository site on "current economics" of a rapidly depleting, nonrenewable natural resource of great value seems unrealistic. Instead, the disqualifying condition should be oriented to the long-(up to 1,000 years) postclosure period when such resources may be sufficiently valuable to attract exploration ventures and thus making the site subject to "human interference." In addition, this "small, depleted, low-pressure" field produced a total of 1.3 billion cubic feet of gas prior to 1941 (McFarland, 1983, Washington Div. Geol. Info. Circ. 75).

The presence of natural gas in the plateau basalts is becoming a concern to DOE for a reason other than economic development. DOE recently began discussing the potential for redesigning the exploratory shaft. This redesign is apparently due to the need for increased ventilation of methane gas in the basalts at the repository horizon. The change in diameter of the exploratory shaft from 6 feet to 9-12 feet indicates a significant change in the amount of ventilation deemed necessary for worker safety.

The deep exploration wells, the seismic profiles, and surface geophysics, such as aerial magnetometer and side-looking radar surveys, are beginning to delineate features that may directly impact the repository program. Since structural traps, such as folds and faults, are the first places explored for oil and gas resources, a significant amount of new structural data are being acquired. Piecing some of these data together in a logical manner was the goal of the CTUIR interim on-site representative at Hanford in mid-1986. His cross-section (see attached fold-out page) presents some of these geologic data in a diagrammatic form. This cross-section shows that several thrust faults may have been present in the old Rattlesnake Hills gas field, as indicated by a potentially repeated series of Oligocene (older) coal seems overlying Miocene

(younger) basalts. Several major folds north of Rattlesnake Ridge, such as the Yakima, Umtanum-Gable Mountain-Gable Butte, and Saddle Mountain anticlines, may be bounded on their northern flanks by similar thrust faults. Thrust faults in the Wyoming-Idaho Overthrust Belt have, in the past 20 years, become the most important onshore oil and gas exploration province in the continental United States and Canada. This indication of potentially significant faults near the Hanford Site should be evaluated by DOE for the impact of capable faults and seismicity on the location of a repository.

This tribally sponsored study concerning potential hydrocarbon resources at Hanford further supports the Tribe's contention that the site may not be suitable for characterization. The Tribe contends that, at the very least, DOE should provide for a drilling and test program to determine the extent of subterranean faults and potential hydrocarbon resources at the site during characterization. However, at present, DOE does not plan to conduct such tests.

It should be noted that these tribal activities were coordinated to the extent possible with those of the State of Washington, which shares similar concerns about the Hanford site.

Tribal critiques of DOE site evaluation activities have also raised concerns about the adequacy of DOE efforts regarding: (a) planned hydrologic testing; (b) off-site environmental impacts within the Tribes's treaty-protected possessory and usage rights area; (c) quality assurance programs at Hanford; and (d) impacts associated with transportation of spent fuel and other high-level radioactive wastes (HLW) through the Tribe's reservation and treaty rights area. While substantial progress has been made in recent months in convincing DOE that its plans for site characterization and impact

assessment activities need to be expanded substantially so as to encompass all credible scenarios associated with repository and transportation operations, the Tribe believes that the "schedule-driven" approach to site characterization by DOE may militate against conducting truly comprehensive drilling, in-situ, and other testing programs sufficient to characterize the site.

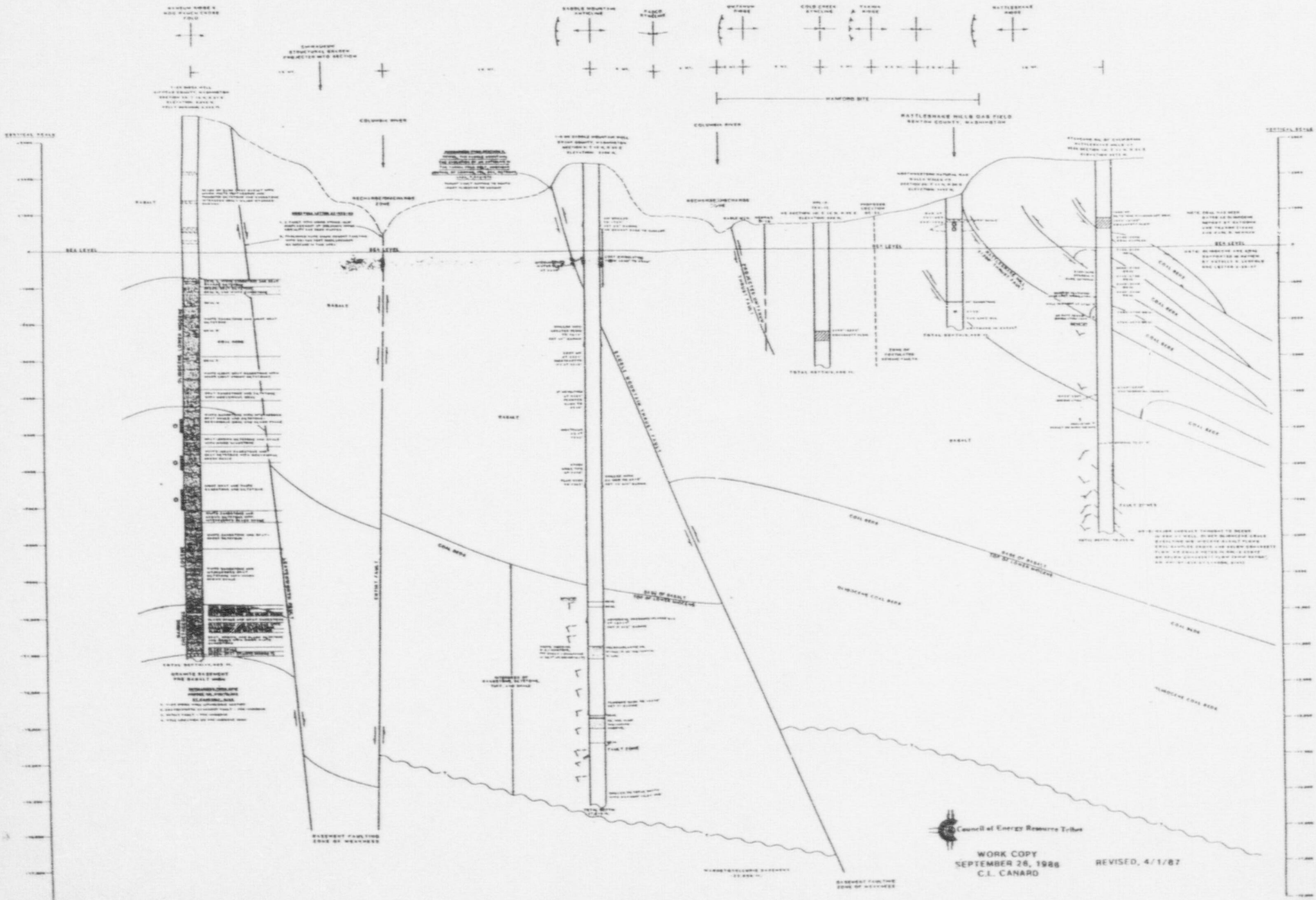
The Umatilla NWSP is behind schedule because of funding but is prepared to expand its site characterization analysis and monitoring and its independent impact assessment activities in order to fully exercise its "oversight" and cooperative roles with NRC under the Act. However, recent issues have been raised by DOE regarding the Tribe's rightful and lawful roles under the Act.

DIAGRAMMATIC CROSS SECTION

SHOWING SUBSURFACE FAULTING AT BWIP

NW

SW



STATEMENT OF DEL T. WHITE
NEZ PERCE TRIBAL EXECUTIVE COMMITTEE
TO THE
NUCLEAR REGULATORY COMMISSION
JUNE 16, 1987

Chairman Zech, members of the Commission, my name is Del T. White. I am a member of the Nez Perce Tribal Executive Committee ("NPTEC") and Chairman of the NPTEC's Nuclear Waste Subcommittee. The NPTEC is the Tribe's governing body, and the Subcommittee bears primary responsibility for the development of tribal policy on nuclear waste issues. We are pleased to have the opportunity to present our views to the Commission.

I. Objections to the First Repository Siting Process

Throughout the process of investigating, nominating, and recommending sites for characterization for the first repository, the Nez Perce Tribe has strived to maintain both the objectivity and the technical integrity of our programatic efforts. We do not claim, of course, to be objective in all respects. Given the choice of either having or not having a facility that may endanger natural resources on our reservation and in the area in which the Tribe may exercise rights of possession and use, obviously we would prefer not to have it. We nevertheless have expressed the view that if DOE can persuade us that no reasonable scenario exists under which dangerous levels of radioactivity will be released from a repository at Hanford, we will not exercise our right to disapprove the selection of Hanford.

In certain respects, of course, this is hardly a major concession on our part. If we are convinced that there is no possibility of harm to treaty resources, it would be both unethical and, more significantly, ineffective for us to exercise the right of disapproval. Unfortunately, a number of actions of the Department cause us to have a low level of confidence in DOE's evaluation of this critical issue.

Our complaints boil down to a belief that, regardless of the outcome of the work preliminary to site characterization, Hanford was going to be selected for non-scientific institutional reasons. Not having been privy to the deliberations of the Department in nominating and recommending sites for characterization, we cannot provide an exhaustive list of the institutional reasons for the selection of Hanford. Those reasons, however, certainly must include the fact that a large number of DOE personnel and DOE contractors' personnel already were at the Hanford site. As you know, work at Hanford directed at a high-level waste repository was under way while the Act was being considered by Congress.

This is not to say, of course, that we have identified at this early date factors that disqualify Hanford from consideration as a repository site. What we <u>are</u> saying is that, of the five sites

recommended, Hanford clearly is the site most likely to be disqualified during the characterization process. DOE was well aware of this fact when it recommended Hanford for characterization; so aware, in fact, that it was necessary for DOE to systematically remove the many negative references to Hanford from early drafts of the Multi-Attribute Utility Analysis ("MUA") of the sites nominated for characterization for the first repository. DOE's justification for selecting Hanford despite its ranking last in both pre-closure and post-closure factors comes down to a claim that the "geological diversity" requirement of the NWPA compelled the selection of Hanford. This claim is fallacious on at least two grounds. First, the Nuclear Regulatory Commission has made clear that the "diversity" requirement is met by the selection of sites representing only two rock types. Thus, it simply was not necessary to pick sites of three different types. Second, if DOE's view of the "diversity" requirement is accepted, then Hanford and Yucca Mountain were destined to be selected from the issuance of the first area recommendation reports, in that they were the only non-salt sites under consideration. Evidently, DOE is asserting that, even if the tuff or basalt sites had shown likely disqualifying factors during the preliminary investigations, they nonetheless would have to have been selected for characterization.

Our concerns are heightened by the scholarly criticism of the selection of Hanford by experts not associated with any state or tribal program. Indeed, the strongest criticism of the first-round site selection process has come from people involved in the preparation of the MUA and the review of the site selection methodology by the National Academy of Sciences. Professor Ralph L. Keeney of the University of Southern California critiqued the DOE decision in a monograph entitled "An Analysis of Portfolio of Sites to Characterize for Selecting a Nuclear Repository." In his analysis, Professor Keeney conducted a "portfolio analysis" for selecting sites for characterization, concluding that Hanford should not be characterized.

Similarly, Professor Detlof von Winterfeldt, who participated in the review by the National Academy of Sciences of DOE's methodology for siting the first repository, reported to Mr. Rusche that:

> In brief, I believe that the conclusions drawn in the recommendation report are based on selective and misleading use of the analysis prescribed in the methodology report [MUA]. It is extremely hard to find in the methodology report any support for the selection of the specific set of three sites recommended for characterization. Instead, I find a convincing analysis that clearly rejects the Hanford site and, furthermore, supports the selection of the Richton Dome site over the Deaf Smith site. The way the methodology report was interpreted in the recommendation report, in my opinion, comes very close to a misuse of an otherwise excellent analysis.

These criticisms leave us concerned that DOE selected Hanford regardless of the unfavorable results of the preliminary investigations. This in turn leads us to believe that, if DOE already has decided that it wishes to construct a repository at the Hanford Site, it is going to do so regardless of the outcome of the scientific investigations mandated by the Act. We have little confidence in the objectivity of DOE's conduct of the technical investigations of the sites. The selection of Hanford clearly indicates that the program is not driven strictly by scientific considerations. However we may wish to characterize the considerations that led to the selection of Hanford, quite clearly those considerations were not scientific.

Our concern is intensified by the fact that DOE has announced that its "working hypothesis" is that each of the three sites being characterized are in fact acceptable and licensable by the NRC. By assuming before detailed work has begun that the site is acceptable, DOE may be preordaining its conclusion. This danger is all the more genuine in light of the NRC staff comments on the Environmental Assessments issued for the three first-round sites. A general criticism by NRC staff of the DOE program is that DOE consistently fails to use conservative assumptions in carrying out its technical studies. Given the profound danger posed by potential releases of high levels of radioactivity, the very least that we can ask is that DOE proceed conservatively in its investigations. DOE's "can do" attitude simply must not be allowed to prevail over serious concerns relating to the health, safety and welfare of the human beings in the area of the proposed repository.

Among the comments from NRC staff on the Environmental Assessment of the Hanford site were the following:

(1) The analysis presented in the final EA on natural resources does not consider available geothermal resource information.

(2) The existing limited data on potential fault activity supports the view that faulting may exist at or near the Reference Repository Location.

(3) The final EA did not take into consideration the potential impact of microearthquake swarms on the tectonic suitability of the Reference Respository Location.

(4) The high level of confidence DOE assigns to its finding that groundwater travel time at Hanford will exceed one thousand years is inappropriate due to the limited hydrogeologic data base.

These concerns, when combined with DOE's non-conservative approach and our belief that considerations other than scientific may be controlling the site selection process, cause us profound doubt as to the impartiality of DOE's scientific program. As noted above, investigations have not reached the point where disqualifying factors can be identified with confidence. Given what already is known about Hanford, we believe it clear that Hanford is more likely to be disqualified than other sites not recommended for characterization. In the face of criticism of the selection of Hanford, DOE must find a way to redeem that choice. We are deeply concerned, therefore, that the DOE scientific program will be designed not to discover such disqualifying factors.

We are further concerned that DOE will attempt to limit our investigations of potential disqualifying factors. Delays in DOE's processing of the Tribe's grant application, for example, have prevented us from carrying out important environmental data collection in a timely manner. The consistency of the pattern of bureaucratic inertia leaves us believing that DOE is intentionally hampering our investigative efforts through the grant process. Another example involves the Tribe's plans to investigate the potential for human interference with the Reference Repository Location arising from oil and gas exploration and the possibility that oil and gas reserves in paying quantities exist in the Pasco Basin. DOE has resisted our efforts in this connection, and quite clearly wishes to prevent us from pursuing this investigation.

Even as DOE continues to hamper our program's investigative efforts, it is pushing forward with its own investigation at an inappropriately rapid pace. The most recent example of DOE's haste is its plan to begin drilling as soon as possible at the Hanford Site. As you know, Congress prohibited the drilling of exploratory shafts in the Fiscal Year 1987 appropriations statutes. DOE, however, seems to believe it can escape this prohibition by drilling "only" 600 feet down to the first layer of basalt at the Reference Repository Location.

Our first objection to this proposal is that it was formulated and, indeed, adopted without any consultation whatsoever with the three affected tribes and the State of Washington. We believe this failure to consult is a regrettable example of bad faith on DOE's part in the consultation and cooperation process. More pertinently for the Commission's purposes, however, is the possibility that this drilling-(which is to be conducted prior to the completion of hydrologic studies) will destroy the integrity of the results of groundwater hydrology testing. DOE's plan of action very clearly demonstrates that it is willing to sacrifice the scientific and technical integrity of its investigative efforts to budgetary and scheduling considerations.

In the short run, this plan can only further aggravate existing tensions between DOE and the affected tribes and the State of Washington. In the long run, it may place this Commission in the difficult position of having to reject data critical to a proper

license application. Clearly it would be better for DOE to complete surface characterization - at least on those matters that may disqualify the Hanford Site from further characterization - before sinking a shaft and creating the disruption to the environment that necessarily will result.

In short, we doubt the impartiality and the scientific bases of DOE's decision-making. DOE has prevented us from carrying out our independent investigations. If the first-round siting process survives judicial review and continues in past fashion, DOE faces a virtually certain notice of disapproval in addition to well-armed opposition in licensing proceedings.

In many respects, the current difficulties the program is experiencing might have been avoided had DOE taken a proper view of how relations were to be carried on with the affected tribes and states. We do not underestimate the difficulty of involving tribes and states in the repository siting process. Such involvement, however, is mandatory and we are most disappointed with the way that DOE has carried on these relations during the site selection process.

The most gross example of the Department's failure arose with the Secretary's May 28, 1986 decisions. At a meeting in Albuquerque only six weeks earlier, DOE representatives had promised the tribes and states at least 15 days notice of the release of the EAs and promised to try to give 30 days notice. As the Committee knows, the tribes and states were not given 30 days notice; they were give 30 minutes notice.

Moreover, we never were given any indication that a postponement of second repository work was under consideration. Given the very significant role Congress established for the tribes and states, it is unimaginable that DOE would make such a decision without at least advising the tribes and states that the matter was under consideration. The result of the illegal postponement of the second repository and the failure to adequately involve tribes and states in the first round site selection process is the 40 or so lawsuits now pending against the Department.

Recent developments have softened our views to some extent. The positive resolution of the impact assistance and Section 117(c) issues have given us some confidence that the Department has the capability of being fair and reasonable in its relationship with the Tribe. We attribute this improvement in our relationship with the Department to the personal interest that Mr. Rusche has taken recently in the Tribe's concerns, as well as the ascension of Stephen Kale to the position of Director of the Office of Geologic Repositories. These recent improvements have led directly to our willingness to engage in negotiations for a consultation and cooperation agreement with the Department.

Nevertheless, these improvements only carry so far. The fact remains that the postponement of the second repository is illegal and

seems based on political not scientific considerations. We will continue to mistrust the Department unless and until that decision is reversed and site-specific work on the second repository resumed. The Act calls for contemporaneous investigations for both repositories. We cannot accept any less without sacrificing the interests of our constituents.

All that the tribes and states have asked is that DOE carry out the spirit and letter of the NWPA. We continue to believe that the process established by the Act is scientifically and fiscally sound, fair to all affected parties, and, most importantly, protective of public health and safety. It is the implementation that has been flawed; so badly flawed, in our view, that we must return to an early point in the process and revisit each key programmatic decision. By doing so, the NWPA process can be salvaged without sacrificing the fairness and the profound regard for public health and safety embodied in the Act.

II. THE ROLE OF THE NUCLEAR REGULATORY COMMISSION

DOE's failure to conduct proper institutional relationships has not been limited to its dealings with the affected tribes and states. Another example of DOE's failure to properly involve entities having statutory responsibilities arises from its decision to issue a preliminary determination of suitability on the three sites chosen for characterization before having gathered scientific data critical to any determination of suitability. As you well know, Mr. Rusche indicated to this Commission that the preliminary determination of suitability would not be made until the characterization process had yielded sufficient information to allow the Department to make a meaningful assessment of the suitability of sites undergoing characterization. DOE later unabashedly reneged on this commitment. We were most disappointed that this Commission failed to insist that Mr. Rusche stand by his earlier assertion.

Nevertheless, we are pleased with the general course of our interaction with the Commission and its staff. A good example of the Commission's conscientious conduct of its responsibilities under the Act is the proposed negotiated rulemaking on rules governing NRC proceedings on the licensing of a geologic repository. We believe that such a forum is an effective means of addressing the concerns of all interested parties and, moreover, the decision to involve the affected tribes and states intimately in the development of these rules is wholly consistent with the unique role that Congress established for the tribes and states in the NWPA.

We would like to explore with the Commission and its staff other substantive areas for the development of a close working relationship with NRC, particularly during our respective reviews of Site Characterization Plans to be issued later this year. The review of these plans is a critical programmatic undertakings both for this Commission and for the tribal program. We are concerned that, given the volume of the SCP and the limited resources available both to the

Tribe and to the Commission, the review will be only marginally sufficient. It may be that the Tribe and the Commission can stretch those resources by cooperating in the SCP review process and complementing one another's activities.

Another area in which a closer working relationship between the Tribe and the Commission would give positive results involves our respective on-site representatives at the Hanford Site. Again, we would like to explore ways in which to develop a more formal and comprehensive relationship between Commission staff and tribal staff.

With the decision of the President on May 28, 1986, to select the Hanford Site for characterization, the Tribe's program entered a new phase. We first developed a comprehensive program plan to guide the Tribe's NWPA projects throughout the characterization phase. We then developed an environmental surveillance plan for the characterization phase, and a plan for assessing the social, economic and cultural impacts of a repository at the Hanford Site.

The Tribe's technical contractor staff consists of approximately 45 people, of whom some 75% are professionals in the fields of geology, hydrology, environmental sciences, chemical and nuclear engineering, economics, regional planning, business administration, education, law, and radiological/health physics. This core group is supported by other part-time and full-time consultants in such fields as atmospheric sciences, geohydrology, mining engineering, archaeology, anthropology, socioeconomic analysis, and other pertinent disciplines. This team has been involved in reviewing, monitoring, and evaluating a large body of scientific data and technical documentation generated under the NWPA, and has produced a number of technical reports, commentary, and planning documents to support tribal decision making under the Act. In addition to our current focus on the analysis and monitoring of site characterization activities at Hanford, many tribal efforts are directed toward the more long range goal of preparing for participation in licensing proceedings before this Commission should the Hanford Site be chosen for a repository.

To date, tribal comments on DOE's site evaluation activities have raised concerns about the adequacy of DOE efforts regarding: (a) possible oil and gas reserves in the Hanford area; (b) planned hydrologic testing; (c) off-site environmental impacts within the Tribe's possessory and usage rights area; (d) quality assurance programs at Hanford; and (e) impacts associated with transportation of spent fuel and other high-level radioactive waste through the Tribe's reservation and treaty rights area. Some progress has been made in recent months in persuading DOE that its plans for site characterization and impact assistance need to be revised substantially so as to encompass all credible scenarios associated with repository and transportation operations. The Tribe believes, however, that DOE's schedule-driven approach to site characterization may prevent the necessary comprehensive drilling, in-situ, and other testing programs.

We urge the Commission to continue its vigorous review of DOE's technical investigation. In particular, we hope that the Commission will continue to insist that DOE employ conservative assumptions regarding its analysis of the suitability of Hanford for a repository. Given the highly dangerous nature of the materials which will be disposed of at a repository, such conservatisism is not only appropriate, it is absolutely necessary.

Mr. Chairman, we again express our appreciation to the Commision for the opportunity to share our views and discuss the current state of the NWPA program. I would be happy to try to answer any questions you may have.

STATEMENT OF DONALD O. PROVOST

STATE OF WASHINGTON

TO THE

NUCLEAR REGULATORY COMMISSION

June 16, 1987

Mr. Chairman and members of the Commission: Thank you for inviting me to present state of Washington concerns about the high-level nuclear waste program. For the record, I am Donald Provost, Performance Assessment Manager of the Department of Ecology's Office of Nuclear Waste Management.

Before I make specific comments, I will briefly discuss our earlier participation with NRC. Our first major involvement was with the 1982 Site Characterization Report (SCR) on the Basalt Waste Isolation Project (BWIP). State representatives had routine discussions with NRC staff. We were pleased by the excellent work from NRC staff. The draft Site Characterization Analysis (SCA), together with comparable reports from the state of Washington, affected tribes and USGS, influenced the U.S. Department of Energy (USDOE) to significantly improve the BWIP program.

Since 1982, we have worked closely with NRC staff. Recent meetings on Hanford hydrology issues and on general technical positions were

excellent examples of NRC's fair and independent approach. Your on-site representative is doing an excellent job and is a credit to the Commission.

As you know, we are now at a critical juncture of the high-level nuclear waste repository program. The site selection process is on the brink of total collapse. USDOE credibility is at an all time low. NRC and the other affected parties may be "painted with the same brush" if we do not address the credibility issue now, rather then wait until we are in a crisis situation.

Today NRC finds itself in a position reminiscent of its earlier nuclear power plant licensing efforts. NRC staff review of the license was limited to specific NRC responsibilities. Cost, schedule, need, and management capabilities were not reviewed. The result was an extended, controversial, contentious licensing hearings which lead to much higher costs and a very great loss of credibility for the utilities and NRC. NRC chose to narrowly limit staff review of the environmental assessments to the Commissions specific responsibilities. The decision was not to review USDOE cost, schedule or overall ranking of the sites. This approach was taken even though there is a compelling record which documents defective data collections, a lack of adequate quality assurance, a disregard of important data, biased interpretations of data, and over optimistic site evaluations.

Hanford was ranked dead last in both the pre-closure and post-closure comparisons of sites. In the year since Hanford was selected as one of the three sites to be characterized, the situation at Hanford was worsened.

-- The stop work order has not been lifted because adequate quality assurance is not yet in place.

-- USDOE disregarded important information which could disqualify the site.

-- When preparing the Hanford hydrology program, USDOE did not schedule consultation with NRC, states or tribes.

-- USDOE has not provided critical data concerning historic contamination of deep aquifers by iodine 129 as promised.

-- The cost of site characterization has increased between 10 and 20 percent.

It is important that you understand some of the reasons we in the state of Washington are so adamant in our position that:

-- the site selection process must be brought to a halt;

-- the May 28th decisions must be retracted; and

-- the process must be restructured before this program goes on.

We have identified many serious technical concerns which cannot be brushed aside by simply attributing them to the NIMBY syndrome. Our concerns are real and they are substantial.

Groundwater Travel Time: State of Washington and USNRC consultants believe that there is a significant likelihood that groundwater travel time would be less than that required by NRC regulations.

Exploratory Shaft (ES) Drilling: Drilling exploratory shafts will disturb the groundwater system, which would lead to the loss of "perishable" hydrology data. ES drilling should not start until the pre-ES hydrology programs have been completed and NRC, states and tribes have an opportunity to consult with USDOE concerning study results.

Geologic Features: Scientists have identified a suspected fault pattern within the controlled area study zone (CASZ). USDOE plans should include provisions for drilling to determine the extent of the suspected fault pattern.

Presence of Natural Resources: There is strong evidence to suggest the presence of natural resources in the vicinity of the proposed repository. Methane (natural gas), geothermal resources, and groundwater could attract future prospectors to the site. After the final EA was issued, USDOE determined that a proposed repository at Hanford would be a gassy mine.

Retrievability: The Act requires that nuclear waste packages must be retrievable after placement in a repository. Hanford's high rock stresses cause serious retrievability problems and USDOE has attempted to engineer around the problem. At an early stage of the program, the plan was to place multiple canisters in long boreholes. In the EA, USDOE described an approach which utilized short boreholes. Now USDOE is considering a shallow trench approach. Each succeeding approach has greatly increased cost while not providing confidence that canisters could be retrieved.

Miner Safety: Shaft and tunnel construction will relieve in situ stresses which could lead to spontaneous fractures within the rock and rockbursts from walls of shafts and tunnel. Physical stresses caused by high temperatures and a wet environment will require that miners work shorter hours. A loss of ventilation could allow methane concentrations to reach levels which would allow explosions and/or asphyxiation.

Earthquakes: The many small earthquake "swarms" which occur in the immediate vicinity of the Hanford site indicate the release of rock stresses. The distribution of such swarms gives an indication of where fracturing is occurring in the basalts. The fractures are possible groundwater pathways. The earthquakes locations appear to coincide with the geologic features mentioned earlier.

Radionuclide and Chemical Contamination: Previous Hanford activities have resulted in heavy contamination of the controlled area study zone (CASZ). Independent experts should conduct an evaluation of how defense wastes such as iodine 129 have reached deep groundwaters on and off the reservation.

Program and Data Management: USDOE's high-level waste management program has been plagued by serious program and data management problems. The overall management approach has been based on competition among several different repository projects. This has led to inconsistent management and data quality at different sites. USDOE is now planning to contract for an overall manager for site characterization programs at the three candidate sites. This is probably an improved approach, but the man-

agement contractor will not be in place for at least two years. Clearly, substantial site characterization should not occur until a new management philosophy is operational.

The scope of the state of Washington review activities will continue to cover all health, safety, environmental, socioeconomic and technical issues. We ask that NRC broaden its review. At a minimum, wrong doing, lack of disclosure, ethics violations or misconduct should be investigated prior to the time USDOE submits the license application to the Commission. Simply stated, NRC needs teeth in its investigational process.

In summary, the high-level nuclear waste program is on the brink of collapse. A stronger NRC role at this time would be a prudent decision. A stronger NRC role would help ensure that ratepayer and taxpayer money is well spent.

Statement of

MALACHY R. MURPHY

Special Deputy Attorney General

State of Nevada

before the

Nuclear Regulatory Commission

June 16, 1987

Mr. Chairman and members of the Commission. My name is Malachy R. Murphy. I am a Special Deputy Attorney General of the State of Nevada, and appear here today on behalf of the State. We again appreciate the opportunity to periodically review for you some concerns we have with the conduct of the repository siting program, particularlly in those areas which might involve the Commission. My remarks here today will be brief. I intend to highlight only those areas of significance. I will, of course, be happy to respond to questions from the members of the Commission at the conclusion of these presentations.

Before outlining the problem areas, however, I want to bring you some good news. The state has in the past enjoyed a good and, I think mutually satisfactory, working relationship with your staff. Recently we have seen significant improvement in meeting notification and coordination in general. I am thus pleased to report that a good relationship has gotten even better.

First, as you are probably aware, Nevada is engaged in a running debate with DOE over the adequacy of its proposed environmental monitoring program in connection with site characterization, and in particular whether or not any such program not founded upon site specific environmental baseline data can ever be considered adequate, and in compliance with the requirements of § 113 of the NWPA. Unfortunately, our disagreement in this area is not with DOE alone, but is apparently with your staff as well. This is evidenced by a series of correspondence between Bob Loux of the Nevada Nuclear Waste Project Office, and Robert

Browning of your staff, culminating in Mr. Browning's letter to Mr. Loux of March 19, 1987.

To us, it is fairly fundamental that any reasonably adequate mitigation plan, which is required by § 113 to the NWPA to be included in a site characterization plan, must be based upon site specific environmental baseline information. We remain at a loss to understand how DOE can plan to monitor and or mitigate impacts without such a baseline. The Department admits that no such baseline exists, and that the only data in its possession is "historical". For any mitigation planning to be based on less than objective, site specific information, rather than subjective insites drawn from historical data, simply will never be acceptable. It thus remains our position that a credible environmental assessment, based upon site specific environmental baseline information, must be a component of the Yucca Mountain SCP, and that the baseline must be established prior to any further disturbance to the site as a result of site characterization activities.

The Commission must, of course, review and comment upon the site characterization plan. We urge the Commission, when it is presented with such a plan for Yucca Mountain, to insist upon an integrated document, addressing the complete technical, environmental, and socioeconomic program of characterization, including an adequate site specific environmental baseline.

As you know, that is not the end of our concern in this area. Section 114(b) of the NWPA provides that the Commission shall "to the extent practicable" adopt

any DOE final EIS prepared in connection with an application for a construction authorization for a repository. We do not see how the Commission can adopt an EIS if DOE continues to rely only upon "historical" data. In the event it does so, of course, it will simply be too late to correct that failure, since the Yucca Mountain environment will have been so altered as a result of site characterization that establishing any accurate environmental baseline post hoc will simply be impossible.

On April 7, of this year Mr. Loux submitted to Mr. Rusche a proposal to the effect that, if the Department continued to be unwilling to do that job, it should fund Nevada to establish the baseline itself. We have to date received no response to that proposal. We understant that the Department will announce a six month delay in publishing the Yucca Mountain site characterization plan, pushing its release date back from August of this year until March of 1988. In view of that delay we see no real excuse for the Department's contined refusal to establish an environmental baseline, or alternatively to provide the financial assistance necessary to allow the state to do that job itself.

In Mr. Browning's letter to Mr. Loux of March 19, 1987, he indicates that this issue will be addressed in connection with the Commission's rulemaking to amend 10 C.F.R. parts 51 and 60 to conform with the provisions of the NWPA. We trust this issue will indeed be addressed squarely, as soon as possible, and we look forward to a continuing dialogue with the Commission on this matter.

On a similar issue, we continue to experience unacceptable problems in obtaining financial assistance for our independent technical study program, particularly in those areas in which we share major technical concerns with your staff. Mr. Loux has recently received some informal, tentative indications that the state's program will be fully funded, but he as yet does not have all the necessary funding in hand. That is simply inexplicable, in our view.

Nevada also shares the same reservations that almost everyone else involved in this process has regarding the Department's amended Mission Plan. I won't unnecessarily extend my remarks by going into the details of our concerns in that area. We have expressed them directly to the Department, of course, and on several occassions to the Congress. Let me just reiterate what continues to be our position that the amended Mission Plan is seriously and legally flawed. We frankly have no confidence whatsoever that the Department will be able to succeed in siting and developing a repository under that plan.

In another significant area we are confused as to the role which the Department proposes that the National Academy of Science is to play in the site characterization process. It was originally our understanding that the NAS was asked to act as a technical reviewer of the adequacy of the Department's characterization activities at three sites; as sort of a super peer reviewer, if you will. More recently, however, we are advised that the Academy does not intend to independently examine DOE's raw data, upon which many of its characterization activities and decisions will be based. It is precisely in that area, of course, that

many of our, as well as that of your staff's, most fundamental concerns with DOE's technical program lie. What sort of meaningful contribution can the Academy make in this area if they are to ignore totally any problems associated with the Department's underlying data?

Additionally, the Academy intends to establish three review panels, each to be made up of members with expertise in various areas, including "public policy, legal and regulatory matters". Again, if the role of the National Academy is simply to provide an independent review of the Department's technical site characterization program, why the need for expertise in public policy, legal and regulatory affairs? This should cause the Commission, we submit, as much concern and uneasiness as it causes us. We continue to fear that the Department will attempt to obtain the imprimatur of the National Academy, of what we have already heard Senator Bennett Johnson refer to as "the Supreme Court of Science". If, indeed, the Academy's panels are to somehow pass upon or opine with respect to the Department's compliance with legal and regulatory requirements, including, for example, 10 C.F.R. part 60, that would put a future Commission in a very difficult position, and have at least the potential to implicate the Commission's ability to review a license application without unnecessary political and institutional pressure to approve it.

Nevada will raise these questions with the NAS itself at its meeting scheduled for Seattle on July 15. We will also, of course, resist any attempt to have the Academy play a role which could in any way effect the Commission's

ability to exercise a completely independent judgment at the critical stage of licensing any proposed repository.

Nevada has earlier, in response to your Federal Register notice of December 18, 1986, indicated our support for the notion of negotiated rulemaking on document management and control in a licensing proceeding, what we shorthandedly refer to as a licensing support system (LSS). We look forward to working with the Commission's staff, and the negotiated rulemaking committee. We understand the necessity for delay in the originally proposed schedule, but we nevertheless hope that the committee is formed and the negotiated rulemaking commenced at the earliest possible time. That process is important to all the parties, and will undoubtedly take longer than we all optimistically anticipate. Someone, someday, will be involved in a proceeding to license the nation's first high-level nuclear waste repository, and the ground rules governing discovery and document control in that proceeding should be established at the earliest practicable date.

Finally, our conviction goes stronger daily that, should DOE continue on its present ill-advised course, the process of siting and developing needed repositories for the nation's high-level nuclear waste and spent nuclear fuel is doomed to failure. We see no evidence whatsoever of the Department's willingness to step back and restructure the entire process, commencing with objective, scientifically based guidelines, to conduct a national search for a repository site free of the biases adhering in the present program, and to take the steps essential to any hope

of some day achieving the state, tribal, and public support, including truly meaningful consultation and cooperation, without which this process cannot possibly succeed.

Again, Mr. Chairman, we appreciate very much the opportunity to meet with you here today, and to share some or our concerns regarding this process. I will, of course, be happy to answer any questions which you, or any members of the Commission might have.

STATE OF UTAH
COMMENTS
TO THE
NUCLEAR REGULATORY COMMISSION

JUNE 16, 1987

The State of Utah thanks the Commission for the opportunity to provide comments on the site selection activities undertaken by the U.S. Department of Energy pursuant to the Nuclear Waste Policy Act of 1982 (the Act). Utah supports the purposes of the Act and has endeavored to participate in the repository site selection process in a manner consistent with those purposes and its obligations under the Act. Utah has a continuing interest in the site selection process, because two sites in southeastern Utah, Davis and Lavender Canyons, have been identified by the Secretary of Energy as potentially acceptable for the first repository. In addition, Davis Canyon has been nominated as suitable for site characterization. While DOE is not currently considering it as a candidate site, Davis Canyon may remain eligible for recommendation as a candidate site under the provisions of the Act. We thus share with the NRC the concern that the siting of the nation's first repository for spent nuclear fuel and high-level radioactive waste be based on a sound, reasoned technical approach to issues of site safety.

Our analysis of the technical issues related to the siting of a repository at the Davis Canyon site has led us to conclude that the site characterization program proposed in the final Environmental Assessment for the site is inadequate for the purposes of meeting the licensing requirements in 10 CFR Part 60. We have likewise concluded that a technically adequate site characterization program for the site cannot be performed consistent with the requirements of the Act and the siting guidelines in 10 CFR Part 960.

We must therefore respectfully disagree with the conclusion on the suitability of the Davis Canyon site expressed in a letter from Commissioner Zech to Senator Bennett Johnston, dated April 13, 1987. In that letter, Commissioner Zech stated that "the NRC staff review of the five FEA's [final Environmental Assessments] did not identify concerns that would call into question the suitability of any of the five sites for site characterization." We assume that the standard of suitability implied in Commissioner Zech's letter is that stated in NRC's standard review plan for the draft EAs and in NRC's comments on the draft and final EAs, which is based primarily on the siting guidelines in 10 CFR Part 960 and on the the licensing requirements in 10 CFR Part 60.

As Commissioner Zech noted in his letter of April 13, the "licensability" of a site must be determined through site characterization. The question of whether a site is suitable for characterization--whether it can be characterized--is therefore inherent in its suitability for licensing. If an issue relating to the safety of a site cannot be resolved through characterization, then a site cannot be licensed and that site is not suitable for characterization.

Both DOE and NRC staff have concluded that groundwater movement is a likely mechanism by which significant amounts of radionuclides could be released to the environment. Groundwater movement thus represents perhaps the most significant safety concern in determining a site's licensability. The suitability of the Davis Canyon site for licensing therefore depends upon an adequate determination of hydrogeologic parameters such as groundwater travel time to the accessible environment and likely paths of groundwater flow. These parameters can only be determined through an adequate characterization

of hydrogeologic conditions in the vicinity of the Davis Canyon site.

During the initial phases of the site screening process, DOE estimated hydrogeologic conditions at the Davis Canyon site by means of simple conceptual models with limited supporting evidence. However, the licensing requirements of 10 CFR Part 60 demand detailed site-specific hydrogeologic data that have been collected with an appropriate drilling and testing program that is based on a valid conceptual model. Such a model must be based on appropriate assumptions regarding potential groundwater flow paths, assumptions based on detailed factual familiarity with conditions at and around the site. As stated by NRC staff in the draft Generic Technical Position on Ground-Water Travel Time, "Data collection must be focused on identifying and quantifying paths so that a high degree of confidence is provided that potentially faster paths have not been overlooked." (emphasis added)

Experts in hydrogeology retained by the State have concluded that a likely path of groundwater flow in the Davis Canyon area is westward, through Canyonlands National Park and into the Colorado River. Indeed, the importance of determining groundwater movement with a high degree of accuracy at and near the site is emphasized by the fact that any radionuclides released from Davis Canyon would likely be released into the Colorado River, the major source of water for the southwestern United States. Thus NRC staff has concluded that a site characterization program sufficient to produce "data critical to the understanding of the hydrology and the geology of the Davis Canyon site" may require studies such as the drilling of groundwater monitoring wells to be conducted within the Park. The State has similarly concluded that the principles of conservatism, also stated in the siting guidelines and the

Generic Technical Position cited above, require that characterization of the Davis Canyon site will likely require drilling within Canyonlands National Park, in order to obtain adequate data regarding groundwater movement in the vicinity of the site.

The drilling activities within Canyonlands National Park that would likely be required in an adequate site characterization program, however, cannot be conducted consistent with the Act and existing federal law. Under the previously designated use of the Park mandated by federal legislation, such activities are precluded by the disqualifying conditions in the siting guidelines. Indeed, DOE has repeatedly acknowledged that it cannot and will not conduct drilling inside Canyonlands National Park to characterize groundwater movement. In addition, in a letter to Ben Rusche dated November 7, 1986, the Department of the Interior has advised DOE that the activities proposed for site characterization would conflict irreconcilably with the previously designated resource-preservation use of Canyonlands National Park. These activities do not even call for drilling in the Park.

If the suitability of the Davis Canyon site for characterization is evaluated against a standard based on the criteria in 10 CFR Part 960 and 10 CFR Part 60, then it is clear that Davis Canyon is not suitable for characterization. In order to ensure that the site meets the safety requirements in 10 CFR Part 60, DOE would likely have to conduct site characterization activities within Canyonlands National Park that would disqualify the site under the siting guidelines, the Act, and federal law governing the use of national parks. The State of Utah therefore urges the Commission to reexamine its position on the suitability of the Davis Canyon site for characterization, in light of the

impacts that an adequate site characterization program would likely impose on Canyonlands National Park.

We are continuing to study this and other issues of concern regarding the Davis Canyon site's suitability for characterization, and we would be happy to provide you with further information. We look forward to working closely with you and your staff in addressing this and other matters related to DOE's site selection activities conducted under the Act.

STATE OF TENNESSEE
DEPARTMENT OF HEALTH AND ENVIRONMENT
CORDELL HULL BUILDING
NASHVILLE, TENNESSEE 37219-5402

June 10, 1987

Mr. Samuel J. Chilk, Secretary
Nuclear Regulatory Commission
Washington, DC 20555

Dear Mr. Chilk:

Enclosed you will find fifteen copies of a brief statement by Governor Ned McWherter for the meeting of the Commission with states and tribes on June 16. I will represent Tennessee at that meeting, and will summarize Governor McWherter's statement.

I will be traveling on June 15. My itinerary calls for me to arrive in Washington in the late afternoon on June 15. I plan to stay at the Mayflower Hotel should you need to deliver a transcript of Mr. Rusche's statement to me there.

Sincerely,

Ben L. Smith
Environmental Policy Group

BLS/rnc

Enclosures (15)

STATEMENT OF

NED R. MCWHERTER

GOVERNOR OF TENNESSEE

Presented to the

United States Nuclear Regulatory Commission

Washington, DC

June 16, 1987

The state of Tennessee rejects the proposal to develop a monitored retrievable storage facility at Oak Ridge, Tennessee. This is the position of both the Governor and the General Assembly. Tennessee has rejected the MRS proposal because the DOE has failed to demonstrate a need for this expensive project. The DOE proposal is not a viable solution to the problem of isolating nuclear waste from the human environment. Rather, it is a temporary solution inappropriate for waste materials that will remain dangerously radioactive for 10,000 years.

My "notice of disapproval" of the siting of an MRS in Tennessee (attached) was delivered to the Congress on May 28, 1987. The notice of disapproval of the General Assembly was submitted along with mine. These notices were submitted at this time out of an extreme abundance of caution given the significant legal uncertainty as to when such notice was timely. Our efforts to resolve this issue in federal court led to the conclusion that it was ultimately up to the Congress to determine the timeliness of any "notice of disapproval" which is issued.

The Nuclear Waste Policy Act provided the states with certain rights and with a chance for participation in

structuring a national system for the final disposal of spent nuclear fuel. Tennessee has sought to protect and to exercise its rights under this law. Protecting our procedural rights has been a difficult task, due largely to the ambiguity of the language which was added to the Act to require a study of monitored retrievable storage. Nevertheless, Tennessee has participated by conducting a rigorous analysis of the MRS proposal. We have taken a constructive stance by proposing ways to improve the nuclear waste management system. We believe that a better system can be devised; one which results in less risk to the public and lower cost.

My comments address succinctly the perceived need for the MRS proposal, the proposal's cost, and the important ethical concerns in postponing the ultimate solution to this problem for another generation.

MRS IS NOT NEEDED

Much of the debate regarding the MRS proposal has focused upon the desired location of the facility. To some extent, the emotional atmosphere in which this debate has occurred has distracted attention from the more important question of whether the MRS is needed to ensure the success of the nuclear waste program. Studies undertaken in Tennessee and by the General Accounting Office in Washington raise serious questions about the prudence of this project.

The Tennessee studies indicate that the rod consolidation and storage functions proposed for the MRS can be accomplished effectively at the individual reactor sites. The DOE could encourage this alternative with two initiatives. The first would provide utilities with credits for fuel consolidation. The second would make available to utilities dual purpose casks suitable for storage at the reactors and adaptable for later transportation directly to the permanent geological repository.

The case for pursuing an alternative for on-site storage is strengthened by independent projections of the amount of spent fuel which nuclear utilities will generate. In fact, DOE recently adopted a number of the waste projection assumptions which the Tennessee study team used in 1985. Two years ago, DOE projections for spent fuel for the year 2000 were 20% higher than the Tennessee study. Today the difference is only 2 percent.

As waste volume projections drop, so do claims of avoided reactor storage costs attributable to MRS. DOE has testified that these savings would amount to $150 to $450 million assuming the first repository was developed on time. These anticipated savings, however, were based upon earlier waste volume projections that have since been discounted. You should be aware that the actual cost savings likely will not exceed $100 million.

Substantially lower projections for spent fuel represent an extremely important issue in the debate over whether there exists a "crisis" of accumulated nuclear waste at our reactors. A number of reactors probably will decide to consolidate fuel rods at their sites to conserve available storage space. For some, this decision will come well before 1998, the most optimistic date for start-up of the first repository and the latest date projected for beginning MRS operations. Such early initiatives by the utilities are consistent with the DOE assumption that consolidated fuel is the desired waste form for repository emplacement. Congress should seek to encourage such beneficial actions by the utilities.

In recent years utilities and private support companies have been developing technology to consolidate fuel rods under water in the reactor storage pools. Some dry consolidation concepts also have been advanced. Several rod consolidation demonstrations have taken place. Others are planned by private

firms anxious to prove that the process can be done safely. When the consolidated fuel is placed back into exiting storage pools, unit costs will be lower than for MRS fuel handling and storage.

For some reactors where further pool storage may not be appropriate, the fuel, either consolidated or not, can be kept at the reactor site in dry storage casks. The technology for such casks is nearing maturity. Such a cask already is licensed for use in West Germany. American utilities and the NRC are moving toward general licensing of dry storage casks at reactors without additional site-specific approvals.

Taken together, the advancing technologies in reactor consolidation and storage and diminished projections for the volume of spent fuel which will be generated suggest strongly that the primary functions for which MRS was conceived might well be handled routinely at reactors by the time an MRS could become operational. The motivation for such a policy would be nothing more than sound management by the utilities. With these options available to the utilities, the need for a temporary waste repository is no longer justifiable on grounds of cost or safety.

The task now should be to reinforce and reward the steps which have already been made toward sound management of America's nuclear waste. DOE could begin by developing a credit

system for fuel consolidated at the reactors. Such a system of credits would recognize the benefits to the waste management system that result from the use of fewer casks and fewer shipments through the states. With this incentive, technology refinement for at-reactor consolidation could be moved forward at a quicker pace in response to DOE's efforts to organize and fund demonstrations.

DOE should accompany these efforts with a closer examination of cask designs that could serve both reactor storage and transportation functions. Such casks would reduce fuel handling and worker exposure. An appropriate family of dual purpose casks should be standardized by DOE for competitive manufacture.

In addition, DOE should pursue plans to move more of the spent fuel by rail than is currently proposed. The benefits of such a proposal would be substantial. With large rail casks fewer shipments would be necessary and costs and radiation exposure to the public could be reduced. To maximize use of this mode, DOE should become actively involved with the utilities in upgrading the cask handling and shipping capabilities of some of the reactors. DOE could help to coordinate shipping campaigns using dedicated trains. The non-standard shipping capabilities of the reactors should not be allowed to stand as a major constraint to creating an optimal waste management system for the nation. Tennessee's studies indicate that such improvements could reduce the number of

cask-miles of shipping through the states down from 1.4 million annually with MRS, to 1.0 million with NO MRS and an improved transport plan.

MRS COSTS OVERSHADOW THE BENEFITS

Determining the cost of MRS to the nation and to Tennessee has been extremely difficult. Life cycle system cost increases attributable to MRS climbed from $2.0 billion to $2.6 billion between December 1985 and April 1986. As the General Accounting Office has revealed, even the latter figure did not include a lengthy list of expensive items. One such item, likely compensation to the impacted state and community, could easily reach $1 billion.

Apart from costs associated with the MRS construction, operating cost estimates contained in the proposal recently sent to Congress have been reduced dramatically, and warrant critical examination. Based upon highly questionable assumptions, estimates of total system life cycle cost increases due to MRS have been recently reduced from $2.6 to $1.6 billion. The billion dollar reduction received insufficient documentation in the proposal, was not explained prior to the proposal being sent to Congress and should, therefore, be highly suspect.

The projected economic benefits appear to fall far short of justifying the enormous cost of the MRS. The most favorable scenario of benefits, which includes a repository in Washington, could produce only $650 million. Benefits ratios for all other scenarios are far lower. The question is whether $3 billion should be appropriated for an MRS proposal of dubious economic benefit. An issue of this magnitude should be resolved on the basis of sound data that is not subject to whims of arbitrary change.

THE INTENT OF THE NUCLEAR WASTE POLICY ACT

We understand that the primary mission of the commission is to protect the public health and assure the safety of nuclear facilities (including nuclear waste facilities) through licensing and oversight. In addition, we urge the NRC to take a hard look at the need for this project and the costs involved. There should be an assessment of the underlying congressional purpose of the Nuclear Waste Policy Act. The past two years have been characterized by an unnecessary sense of urgency regarding the development of an MRS. DOE's insistence in late 1985 that the proposal be acted upon immediately by the Congress is evidence of this generated sense of urgency. The MRS proposal was expedited at that time despite requests by Tennessee officials for adequate time to allow citizens and the state review team to study the proposal and develop

comprehensive comments to be meaningfully incorporated into the proposal to Congress. Only litigation initiated by the state's Attorney General slowed the process temporarily. Yet almost two years after the litigation was initiated, the state's questions and concerns remain.

Other recent actions have served to undermine the congressional purpose of the Nuclear Waste Policy Act. The proposed five-year "extension" of the date for a first repository, and the proposed "postponement" of site-specific work on a second repository have created unwarranted pressure to proceed quickly with the MRS project. Recent emphasis on an unauthorized MRS and the proposed schedule "extension" to develop the authorized portions of the system constitute a distortion of the intent of the Nuclear Waste Policy Act.

A long-term solution for nuclear waste is an issue of the highest priority. The Congress recognized this when it enacted the Nuclear Waste Policy Act. The fundamental principle was then, and still should be, that solutions for the problem should not be deferred to another generation. At issue today is whether the proposal to store nuclear waste in a surface facility would serve only to delay final isolation of the waste from the human environment.

CONCLUSION

The state of Tennessee is deeply concerned about events of the past two years regarding implementation of the Nuclear Waste Policy Act. During this period there has been an ominous drift away from the Act's original intent, along with a false sense of urgency about the need for a temporary waste storage facility. This change is evident in the recently proposed Mission Plan Amendments which move MRS to the forefront to receive spent fuel at the same time a permanent solution is delayed. This DOE proposal is accompanied by statements from some utilities and some nuclear industry representatives calling for "unrestricted use" of the MRS. They seek to drop the schedule linkage to repository development proposed by DOE and call for lifting the cap on MRS storage capacity. Such actions point toward a mind-set that, in effect, would accept a "temporary" solution to a serious national problem with environmental implications for the next 10,000 years. The question is whether we are prepared to take a stand now and reject the notion that we can pass this problem on to our children and grandchildren. Put simply, Tennessee wants no part of a de facto above-ground repository.

The people of our state believe that the shortcomings of this proposal are not limited to the practical considerations of safety, cost, and technological feasibility. They also include issues that reach to the heart of the relationship between the states and the federal government. After two years of examining

the proposal, the people of Tennessee and our state government are unconvinced that the proposed MRS facility is either economically or environmentally sound. Moreover, we do not believe that the process of designing and locating the facility has been conducted in good faith. We think the Congress intended that a potential MRS host state would have the same procedural rights as the states which are potential candidates for hosting a permanent repository site. Tennessee has not been afforded these rights.

TRANSMITTAL TO: X Document Control Desk, 016 Phillips

ADVANCED COPY TO: _____ The Public Document Room

DATE: 6/19/87

FROM: SECY Correspondence & Records Branch

Attached are copies of a Commission meeting transcript and related meeting document(s). They are being forwarded for entry on the Daily Accession List and placement in the Public Document Room. No other distribution is requested or required.

Meeting Title: Meeting w/ States & Affected Indian Tribes on the Status of the National High Level Waste Program.

Meeting Date: 6/16/87 Open X Closed _____

Item Description*:	Copies Advanced to PDR	DCS Copy
1. TRANSCRIPT w/Scheduling Notes	1	1
2. Statement of Russel Jim, dtd June 16, 1987	1	1
3. Statement of Confederated Tribes, dated June 16, 1987	1	1
4. Statement of Del T. White, dated June 16, 1987	1	1
5. Statement of Donald O. Provost, dated June 16, 1987	1	1
6. Statement of Malachy R. Murphy, dated June 16, 1987	1	1

(see attachment)

* PDR is advanced one copy of each document, two of each SECY paper. C&R Branch files the original transcript, with attachments, without SECY papers.

TRANSMITTAL TO: _____ Document Control Desk, 016 Phillips

ADVANCED COPY TO: _____ The Public Document Room

DATE: _____

FROM: SECY Correspondence & Records Branch

Attached are copies of a Commission meeting transcript and related meeting document(s). They are being forwarded for entry on the Daily Accession List and placement in the Public Document Room. No other distribution is requested or required.

Meeting Title: Meeting w/ States & Affected Indian Tribes (continued)

Meeting Date: 6/16/87 Open _____ Closed _____

Item Description*:	Copies Advanced to PDR	DCS Copy
1. TRANSCRIPT	1	1
7. State of Utah Comments dated 6/16/87	1	1
8. Statement by Gov. Ned McWherter, dated 6/16/87	1	1
9. Secy 87-137	1	1

* PDR is advanced one copy of each document, two of each SECY paper. C&R Branch files the original transcript, with attachments, without SECY papers.