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**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

**In the matter of:**

Puget Sound Power & Light Company (Skagit)

POOR ORIGINAL

1865 001

**Place:** Seattle, Washington

**Date:** January 22, 1980

**Pages:** 15049 - 15215

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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

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In the Matter of:

Puget Sound Power & Light  
Company (Skagit)

Docket No. 50-522, 523  
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Room 1057, U.S. Customs Courthouse  
U.S. Federal Office Building  
Seattle, Washington 98174

Tuesday, January 22, 1980

Conference in the above-entitled matter was  
convened, pursuant to notice, at 9:00 a.m.,

BEFORE:

VALENTINE DEALE, Esq., Chairman

DR. FRANK HOOPER, Member

MR. G. A. LINENEERGER, Member

LIST OF ATTENDEES

1  
2 Roger M. Leed, Attorney for SCANP  
3 Michael W. Gendler, Attorney for SCANP  
4 Eric S. Cheney, Consultant for SCANP  
5 Eric Stachon, Coalition for Safe Power  
6 Tom Moser, Skagit County  
7 Daniel T. Swanson, Counsel for NRC Staff  
8 Richard L. Black, Counsel for NRC Staff  
9 Robert Jackson, NRC Staff  
10 Harold LaFever, NRC Staff  
11 James DeVine, USGS Staff  
12 John Whetton, USGS Staff  
13 Douglas S. Little, Counsel for Applicants  
14 F. Theodore Thomsen, Counsel for Applicants  
15 Warren Ferguson, Vice-President of Puget Power Company  
16 Kathleen Shea, Counsel for Applicants  
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1865 003

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P R O C E E D I N G S

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CHAIRMAN DEALE: We understand that there are some more chairs on the way. We don't know where they're coming from and who's going to bring them, but for the people who are having to stand in the rear, we're sorry and we hope that the delivery of the chairs may give you some comfort later on.

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This is a conference among the parties and the Board in the matter of Puget Sound Power and Light Company and others, a matter which is presently before the Atomic Safety and Licensing Board of the United States Nuclear Regulatory Commission.

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The conference was called by a release of this Board dated December 21st, 1979. At the outset the Board would appreciate if new attorneys or representatives of the parties in this proceeding would take the occasion now to introduce themselves, or to have themselves introduced by their colleagues. Are there any newcomers about that either care to introduce themselves or have somebody to introduce them?

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MR. THOMSEN: On behalf of the applicant we have Thomsen and Little, not newcomers from the Seattle lawfirm representing Puget Power and we have attorney Kathleen Shea back there from the Lowenstein firm in Washington, D.C. of counsel for the applicants, as well. Then at counsel table I do have Mr. Warren Ferguson, vice-president of

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2 Puget Power who has testified in the proceeding previously,  
3 and there are, of course, others on behalf of applicant in  
4 the audience.

5 CHAIRMAN DEALE: Right. Well, thank you,  
6 Mr. Thomsen. Anyone else?

7 We welcome all of you and I see that most of you  
8 are what we might say are old stand-bys. I don't suppose we  
9 should emphasize the old as much as stand-bys.

10 This is the first meeting since our first hearing.  
11 Or, since our last hearing on Thursday, August the 30th of  
12 last year. This meeting has followed a couple cancellations  
13 of hearings scheduled for October and November of 1979, as  
14 well as several telephone conferences between the Board and  
15 the parties. Excluding this conference, the conferences and  
16 hearings in this proceeding have already taken up over 15,000  
17 pages of transcript over a period of almost five years.

18 It is fair to state that by this time the Board  
19 had hoped to have wound up the hearings, but such was not to  
20 be the case as new developments were brought to the parties  
21 and the Board's attention in the middle of October by the  
22 NRC staff. From time to time the intervenors have expressed  
23 or implied that their cause of defeating the license to  
24 construct the applicant's plant is identified with public  
25 interest. On the other hand the applicants have held that  
their cause of constructing a nuclear power plant is in the

./3  
1 public interest. Generally speaking, it would appear that  
2 public interest is an overworked term and that sometimes it  
3 would seem this term is misused to clothe a party's particular  
4 point of view with exaggerated respectability.

5 The NRC staff in behalf of the Federal Government  
6 in this proceeding, has, as we see it, a statutory role of  
7 looking after the public interest. The rock-bottom basis for  
8 the NRC staff to participate in this proceeding is to protect  
9 the public interest. So, its role is not oriented as  
10 popularly misunderstood to promote the license here, nor is  
11 its role to defeat the license applied for. Its responsibility,  
12 using public interest as the touchstone includes seeing to it  
13 that all sides of the story are told.

14 So sometimes the NRC staff appears to be on the  
15 side of antagonists of a nuclear plant and other times it  
16 appears to be a supporter of such a plant. In this case the  
17 staff of the Nuclear Regulatory Commission has, in the main,  
18 appeared in support of Puget's application. Yet when the  
19 final hearings were being scheduled, the staff figuratively  
20 waved its hands and requested that the proceeding be held up  
21 because of, and I quote, "new materials," which it had just  
22 received from its consultant, the United States Geological  
23 Survey.

24 We do not venture to guess or forecast what the  
25 ultimate outcome of this turn of events will be. We recite  
the situation to put into focus, perhaps a little better  
than it has been before, the nature of the role of the Nuclear

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1 Regulatory Commission's staff.

2           Before we move along with a formal agenda for  
3 the conference, we have an announcement about a recent  
4 development affecting this proceeding which took place last  
5 week. The development is a legal one rather than a  
6 seismological or geological one. On January 16, the  
7 Commission issued, under its -- issued its order on the  
8 proposed intervention of three American Indian tribes;  
9 namely the Upper Skagit, So-Suiattle and Swinomish tribes.  
10 The Commission decided to review one issue arising out of  
11 the Atomic Licensing and Appeal Board's decision, which on  
12 a split vote of two to one, sustained this Board's denial  
13 of the Indian's petition to intervene. The single issue  
14 which the Commission decided to review is as follows: Whether  
15 petitioner's status, American Indian tribes, separate from  
16 or in conjunction with the particular other facts and  
17 circumstances of and surrounding this case, give rise to  
18 sufficient cause to excuse the extraordinary tardiness of  
19 the filing of the tribes' petition to intervene. In its  
20 Order, the Commission stated that, and I quote, "The  
21 exercise of review is undertaken solely as a matter of  
22 Commission authority pursuant to 10 CFR 2.786A. In its  
23 Order the Commission made provision for written briefs by  
24 the Indians and the parties to the proceeding and directed  
25 the NRC staff to invite the Department of Interior to

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1 express its views as an amicus curia. The Commission's  
2 decision was determined by four of the five Commissioners  
3 exclusive of Chairman Ahearne. Also by the way of a recent  
4 development since our last meeting in August, the Atomic  
5 Licensing and Appeal Board, on November 20, 1979, in its  
6 decision known as ALAB-572, denied a motion to it by stamp,  
7 objecting to four rulings and certain other matters which  
8 the board had made during the course of the hearing. We  
9 move along now to the Board's order dated December 21st,  
10 1979, setting up this conference.

11 As stated in our order, the purpose of the  
12 conference is to take stock of the proceeding and to chart  
13 a course for moving the proceeding ahead. In view of the  
14 substantial impact of the new materials on geology and  
15 seismology which the NRC staff have received from the  
16 United States Geological Survey, we thought it would be  
17 helpful to our discussion to have representatives of the  
18 Geological Survey and technical representatives of the NRC  
19 staff to be present. We understand that they are here and  
20 are confident that they will contribute to a fruitful  
21 discussion.

22 The idea is to place on the record central  
23 considerations about the status of this case so that the  
24 Board, with the cooperation of the parties can best deal  
25 with the problems of managing the proceeding in an orderly

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1 process to its conclusion.

2 This is a public proceeding, and as a public  
3 proceeding, presumably the critical information about the  
4 proceeding which has become available to all of the parties  
5 ought to be on the public record. The Board, and presumably  
6 everyone else in the proceeding wants to get a handle on  
7 these new materials and to be oriented about their  
8 implication. Now, prior to calling on Mr. Black, whose  
9 announcement in mid-October last year had the effect of  
10 placing the current hold on the proceeding and had prompted  
11 the cancellation of scheduled hearings. We remind the  
12 participants in this conference that this is a conference  
13 and not a hearing. We are not in evidentiary session.  
14 The conference is being transcribed for the convenience  
15 of everyone concerned.

16 We now look to the agenda included with the  
17 Board's order of December 21st, 1979 setting up this  
18 conference. Mr. Black, the floor is yours. We would  
19 appreciate the introduction of your colleagues from the  
20 staff and from the Geological Survey and we look forward to  
21 hearing what you and they have to say. Mr. Black.

22 MR. BLACK: Thank you, Mr. Chairman.

23 At this time, I'm not certain exactly how we  
24 want to go about the schedule of conference. I do have  
25 members of both the NRC staff and the Geologic Review staff,

17  
1 namely, Robert Jackson and Harold LaFever here; and also  
2 members of the U.S.G.S. Skagit review team, namely James  
3 Devine and John Whetton who will be making an informal  
4 presentation of the latest evidence that warranted our  
5 motion to postpone indefinitely the hearings on geology-  
6 seismology issues.

7 I'm not certain when we should take that up in  
8 the agenda, but I do want to note that several members of  
9 the NRC review team have to be in San Francisco tomorrow.  
10 So we would like to be able to complete their presentation  
11 today, whether this morning or this afternoon. I don't  
12 expect that it will take all that long and I'm not certain  
13 how you want to proceed with the other items on the agenda  
14 because I don't believe our presentation on those other  
15 items, namely TMI issues, Emergency Preparedness issues,  
16 radon questions and other outstanding items will take that  
17 long. So, I kind of leave it up to you as to how you want  
18 to proceed

19 CHAIRMAN DEALE: Well, Mr. Black, it's your  
20 presentation. So far as we're concerned we too would  
21 welcome completing the comments and discussion of geology  
22 and seismology the first thing. And I don't want to  
23 anticipate but it's even conceivable that after we complete  
24 that discussion, we might wish to bypass the other subjects.  
25 I'm holding that open simply as a possibility, but I believe

1/8 1 it would be well to, as they say, get into the middle of  
2 things and I'm sure that the Board and parties probably  
3 have some input after they would hear the discussion from  
4 the Geological Survey and the staff, and I would really  
5 throw it open to you, throw it back to you.

6 You might desire to explain the background of  
7 this whole matter. That is, it started in October, I  
8 think on October the 18th we had our telephone call. And  
9 where we are today, really, from the Board's standpoint,  
10 flow pretty much from that telephone call about the new  
11 materials. And then ultimately in your correspondence in  
12 January, there were nine questions that had been proposed  
13 -- that had been posed -- and then a tenth one by the  
14 staff.

15 Somewhere, Mr. Black, in your exposition, I  
16 think it would be helpful to have a comment or two about  
17 the significance of each of the questions. What's the  
18 meaning of this? What is the gravity of it? But, again,  
19 I leave that to you.

20 MR. BLACK: Okay. Let me start out with a brief  
21 history of this geology-seismology issue and how we got to  
22 where we are today.

23 Let me back up to the staff Safety Evaluation  
24 Report which was the geosciences branch input into the  
25 Safety Evaluation Report, which is required before a

1 construction permit can be issued. This is the staff Safety  
2 Evaluation Report. You may recall the geo-science branch  
3 chapter to that SER was published on October 3rd, 1979 and  
4 constituted the staff's pre-filed testimony relating to  
5 geology/seismology questions in this proceeding. Now,  
6 attached to that October 3rd submittal was also what is now,  
7 or what is called, the United States Geological Survey Reports  
8 relating to the Skagit application. There have been two  
9 USGS reports in this proceeding. One was dated, February  
10 23, 1978 and a so-called final report was issued September 17,  
11 1979. Now, as you also recall the final USGS report on  
12 September 17, 1979 basically agreed with the proposed design  
13 of a G value of .35 for the Skagit plant, but noted that the  
14 review of certain proprietary seismic profile lines had not  
15 yet been completed and, indeed, had not yet been received  
16 by the USGS at that time and would be forwarded to the NRC  
17 staff at a later date. In meetings with the staff in October  
18 18th and with the staff and applicants in Bethesda, Maryland  
19 on October 26, 1979, the USGS indicated that the continuing  
20 review of the seismic profiles, additional field mapping,  
21 mostly of the seismic profiles, additional field mapping,  
22 mostly by Professor Wetton and further aeromagnetic interpre-  
23 tation had led to serious concerns relating to the capability  
24 of a family of northwest trending high angle faults in the  
25 site vicinity, and in light of these serious concerns,

/10 1 the NRC staff requested in a telephone conference call,  
2 that conference call was on October 31st, 1979, that the  
3 hearing scheduled for the geology-seismology issues be  
4 indefinitely postponed.

5 That oral motion to postpone was followed by a  
6 written motion from the NRC legal staff on November 2nd,  
7 1979. Now that written motion indicated that additional  
8 requests for information would be forthcoming from the  
9 U.S.G.S. outlining its recent concerns with the Skagit  
10 application and that those additional requests for  
11 information would be forwarded to the NRC staff, which  
12 would then forward those requests on to the applicant.

13 Those requests for additional information were  
14 submitted to the NRC staff and finally on to the applicant  
15 on January 8th, 1980. And as you indicated it consists  
16 of nine requests for additional information from the  
17 U.S.G.S and an additional tenth request from the NRC staff,  
18 and we mailed that out to the Board and parties on that  
19 date, January 8, 1980, and I believe everybody should have  
20 a copy of that.

21 Now, this morning -- just subsequent to that  
22 time, Robert Jackson of the NRC staff sent a letter over  
23 to the U.S.G.S. indicating that they wanted some additional  
24 clarifying remarks with regard to the nine requests for  
25 additional information and just this morning I handed out

1865 013

/11 1 to the Board and the parties a follow-up letter from the  
2 U.S.G.S. dated January 18, 1980 which provides some further  
3 clarification of the requests for additional information.  
4 And I believe that the ten requests for additional  
5 information and the contents of this January 18, 1980  
6 letter from the U.S.G.S. back to Robert Jackson will be  
7 explained by the NRC staff and, obviously, the U.S.G.S  
8 personnel who are here today.

9 So I think at this time, unless anybody has any  
10 questions of me that we can just let these four members go  
11 ahead with their explanation of the request for additional  
12 information.

13 CHAIRMAN DEALE: Mr. Black, just a question of  
14 clarification. Are the nine questions which we have  
15 received under cover of your letter, of I think January  
16 the 8th, are those the questions of the Geological Survey?  
17 Or are they questions which the Nuclear Regulatory  
18 Commission had massaged.

19 MR. BLACK: These are, I believe, direct  
20 questions from the U.S.G.S. and the last question which  
21 appears on Page 5 of that submittal is labeled as Page 5 --  
22 is the request for additional information from the NRC  
23 staff itself.

24 CHAIRMAN DEALE: Yes, this is simply a question  
25 of clarification here, or identification, probably. That

/12 1 is the first nine questions are, indeed, the questions of  
2 the Geological Survey and the tenth question is the question  
3 of the Nuclear Regulatory Commission staff.

4 MR. BLACK: Right. And all of this is explained  
5 in Robert Jackson's letter dated January 4th, which was  
6 included in that package which is attached to that package,  
7 and indicates what the staff has done and it indicates that  
8 we had added the further question.

9 CHAIRMAN DEALE: What is the -- nobody used the  
10 word "explanation". Could you give us just a bit more  
11 history of what happened from October the 18th to January  
12 the 8th with respect to the Geological Survey's questions,  
13 the nine questions.

14 Had they given those nine questions to you,  
15 say, around October the 18th or have those questions come  
16 in closer to your January 8th letter?

17 MP. BLACK: Those questions came over, as  
18 indicated in Robert Jackson's attached letter, came over  
19 on December 10th, to the staff and we took some time  
20 reviewing it and, and what have you, to make sure that we  
21 fully understood what the U.S.G.S was requesting.

22 CHAIRMAN DEALE: So that when you were talking  
23 to us in, oh, October the 17th and ultimately October the  
24 23rd and 30th and so on, you had not received these  
25 question. You had just been generally oriented about the

/13  
1 Geological Survey's findings.

2 MR. BLACK: Right. They had generally informed  
3 us of what their further review had indicated. They also  
4 indicated at that time that their review was not completed,  
5 both the seismic profile review and also the further field  
6 mapping by Dr. Whetton. That is why there was a delay from  
7 mid-October to mid-December getting those additional  
8 requests for information over to us is that they had not  
9 completed their review of those two endeavors, and they  
10 wanted to wait as much as they could to make sure that  
11 they had the right interpretations of those. And that  
12 was the reason for an additional two-month delay there.

13 CHAIRMAN DEALE: So that the meeting bringing  
14 in the applicants on October the 26th was a meeting, in  
15 a sense, giving the applicant the general information and,  
16 again, not these specific questions.

17 MR. BLACK: I think that's a fair  
18 characterization, yes.

19 MR. HOOPER: Mr. Black, can I ask a clarifying  
20 question here: Was the -- going back to October -- was  
21 the reservation about the proprietary information on  
22 survey lines, was that the thing that triggered this delay?  
23 That was the thing that you said was the reservation that  
24 the U.S.G.S. had in October, that was outstanding as far  
25 as their report. Was that the thing that triggered this



1/14 1 whole sequence of events?

2 MR. BLACK: I would say that the review of the  
3 proprietary seismic lines that came into the NRC staff in  
4 September of '79 probably was not the sole cause of the  
5 triggering event here. It was not those proprietary  
6 seismic lines that triggered this. Now, it also wasn't  
7 the review of the seismic profile line standing by itself  
8 that triggered this event. It was the review of, I believe  
9 it was the mobile lines that we have had on the docket for  
10 quite some time, seeing certain offsets on those lines  
11 by the U.S.G.S review in conjunction with the continuing  
12 field mapping by Dr. Whetton that was going on at this time  
13 and those two things in conjunction plus further review of  
14 the aeromagnetic work that came in May-June of 1979 that  
15 led to the U.S.G.S. concerns regarding the Skagit site  
16 vicinity.

17 Obviously, that can be explained a little bit  
18 better by the U.S.G.S. and just gives you, basically, my  
19 understanding of what happened here.

20 MR. HOOPER: So is not alone the findings,  
21 or the what you got out of the mobile data that brought  
22 about this postponement?

23 MR. BLACK: No, I don't believe that was the  
24 sole cause.

25 MR. HOOPER: I guess at this time I have the

1/15<sup>h</sup> 1 four people that I mentioned previously: Devine, Whetton,  
2 Jackson and LaFever come forward and they might want to  
3 rearrange some things here. I know that Dr. Whetton has  
4 some maps that he would like to show and I know that we  
5 don't have any place for them to sit down, so perhaps  
6 they will have to make their presentations standing up.  
7 Perhaps we can pull the blackboard out and go from there.

8 CHAIRMAN DEALE: My colleague here suggests  
9 that maybe it would be good to take a break so you can  
10 move around the blackboard and chairs and maybe some new  
11 chairs or some old chairs have come forward. So, we'll  
12 take a break for ten minutes.

13 (Recess taken.)

14 (Continued on next page.)  
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AFTER RECESS

1 CHAIRMAN DEALE: Mr. Black, are we ready to  
2 continue the hearing?

3 It might be good if someone would get a sponge  
4 cloth with a little water.

5 MR. BLACK: I think they are not going to use  
6 the blackboard except to hang things on, so that might not  
7 be all that necessary.

8 CHAIRMAN DEALE: Well, I hope nobody with a  
9 dark blue suit leans by mistake against the blackboard.

10 All right. We will continue. Go ahead, Mr.  
11 Black.

12 MR. BLACK: Mr. Chairman, let me first introduce  
13 the four people here. I think that they have all testified  
14 in this proceeding in one context or another, except for  
15 Mr. Jackson who has taken Dr. Step's position in the NRC  
16 and is responsible for the NRC's staff review of the  
17 geology/seismology issues.

18 He is Branch Chief of the geology/seismology  
19 branch of the geo-sciences division.

20 Starting at the far corner over here is Harold  
21 LaFever, Staff Geologist, Robert Jackson, and this is  
22 Dr. John Whetton who has spent a lot of time field mapping  
23 in the site vicinity, he is with the University of Washington  
24 and a Consultant to the USGS, and James DeVine, USGS.

25 1865 019 I think that Robert Jackson will lead off the

1 presentation.

2 MR. JACKSON: I thought I would take the opportunity  
3 to make several comments about the staff safety evaluation  
4 report and our relationship with the US Geological Survey  
5 and the staff's relationship.

6 CHAIRMAN DEALE: It would be helpful.

7 MR. JACKSON: I am a relative newcomer to the  
8 Skagit proceedings, as you are, and it is a very complex  
9 proceeding. I don't pretend to know everything about the  
10 site that long-term staff reviewers do.

11 However, in October we did issue a safety  
12 evaluation report which was based on internal staff review  
13 of the new information provided by Puget and a letter from  
14 the US Geological Survey which did not outstanding information,  
15 specifically noting absence of site and reflection pro-  
16 files.

17 Now, although we knew that there were outstanding  
18 information, we had a positive feeling that it would not  
19 lead to a situation which would require postponing the hearing.

20 We also knew that it was important to move as  
21 best we could to get toward a hearing as soon as possible  
22 during this October framework.

23 As a result of Three Mile Island Accident in  
24 April, rather, in March; Mr. Denton of the office of NRR  
25 issued specific guidelines on priority work within the staff

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1 in which he delegated operating license reviews as number  
2 one priority, from first wave operating license reviews,  
3 second wave operating license review, and on down the line  
4 so that CP reviews and early site reviews were handled at  
5 extremely low priority because of the availability of  
6 manpower.

7 In the branch, however, we knew that there was  
8 a great deal of time involved in the studies by Puget and  
9 we dedicated two people within the staff of 17 within the  
10 branch to work full time on the Skagit site review between  
11 July and I guess November 1.

12 We rely, because of a limited staff, heavily on  
13 US Geological Survey, especially the complex sites in the  
14 Western U.S.

15 At one time, approximately ten years ago, the staff  
16 was non-existent and in the US Geological Survey in  
17 combination with the US Coastal Geodetic Survey did a  
18 complete site review work and it was endorsed by the staff,  
19 at that time, one staff geologist.

20 In the Skagit proceedings, the USGS posed questions  
21 to us as if they are an arm or an extended review arm of  
22 the staff itself.

23 So the questions that come from the USGS are not  
24 massaged by the staff except to review that we understand  
25 that they are valid questions, that are in turn

1 can endorse them as in effect adopted staff questions.

2 We also received questions from a number of  
3 groups. In California, for example, the California division  
4 of mines and geology sent us extensive questions; we incor-  
5 porate them in our questions which we send to make sure  
6 all competent parties involved can have their questions  
7 considered and answered.

8 So questions to us from the USGS are indeed  
9 endorsed by the staff although they can reflect specific  
10 information and knowledge that the GS has that the staff  
11 has been made aware of, but obviously does not have the  
12 detailed knowledge of it that the USGS personnel do.

13 In this advisory capacity, there is usually  
14 a time lag between being briefed verbally by a survey of  
15 particular findings of having them go back and filter this  
16 information down to questions and sending them on to us.

17 We, in turn, in the geo-sciences branch act  
18 as technical consultants to the program management branch  
19 division and they are responsible in that division for the  
20 licensing.

21 So, we in turn provide those questions to the  
22 licensing program manager, he in turn forwards them to the  
23 applicant so there is a certain amount of bureaucracy  
24 involved with holding questions to the applicant.

25 This is why we called for a meeting as soon

1 we could after the April, excuse me, after the October 18th  
2 briefing and did have a large meeting with all parties  
3 invited on October 26th.

4 Jim DeVine can offer -- what I have asked him to  
5 do is really provide the about the same kind of briefing  
6 and he does not have all the same people that were at the  
7 October 18th meeting, the same kind of briefing in summary  
8 fashion that was provided to us at that time, if he will  
9 kindly do so.

10 CHAIRMAN DEALE: Mr. Jackson, could you give  
11 us a general delineation of the competence of your geo-science  
12 branch of these 17 people?

13 My thoughts run in the direction of this: are these  
14 17 people trained specialists so that they can truly carry  
15 correctly the title, "That man is a geologist." "That man  
16 is a seismologist."?

17 I think that this is important, rather, are these  
18 say people who are generalists, I am trying to draw a  
19 distinction here simply for purposes of clarifying my basic  
20 question, you know, the man is a smart fellow and he has  
21 certainly gone to college and he has a graduate degree, but  
22 he is not let us say a PHD in geology from here, there, or  
23 he has a doctor's degree from some place else, or has been  
24 in industry working for Newmark or whatever as a head of  
25 one of their say earthquake divisions.

1 I would like to get some sense of the character  
2 of the geo-science group.

3 MR. JACKSON: Okay, I will give you the best  
4 indication I can, without sitting down and writing down  
5 the names.

6 CHAIRMAN DEALE: Well, no --

7 MR. JACKSON: The geo-science branch -- I came  
8 to the geo-sciences branch in 1973 and it was just after  
9 a difficult proceeding on the North Anna that was discovered  
10 at North Anna point.

11 It was recognized by the NRC at that time that  
12 there was a need for an in-house staff.

13 But, it was also recognized that an in-house  
14 staff of about 40 professional PH.d seismologists, geologists  
15 could not handle the work that was entailed in this very  
16 important aspect of the power plant sitings.

17 So, there was a general concept that a few people  
18 would be hired and those individuals would be generalists  
19 from point of view for being able to work throughout the  
20 country as best possible, being able to asses the important  
21 questions and filter out those which were not so significant  
22 to site safety and that is where the staff focuses. There  
23 are many good academic questions that need to be resolved, but  
24 we don't try to resolve every so-called academic question  
25 to come up with a site safety.



1           This often gets us in hot water with a particular  
2 professional in the area who has been mapping there for  
3 many years and understands it better than the staff.

4           As a general profile, we have been authorized  
5 the geo-sciences branch group of about 20 geo-scientists.  
6 This includes geologists, seismologists, and geo-technical  
7 engineers or foundation soil engineers.

8           Right now we have seven geologists, three  
9 seismologists and five geo-technical engineers.

10          We have two positions opened and I am authorized  
11 to hire as many seismologists as I can hire.

12          Seismologists are in great demand today and  
13 there are very few around available for employment at the  
14 NRC in the past year.

15          A year ago, we lost Dr. Step, who was a five-year  
16 veteran of NRC, Dr. Kelleher, who is a well-recognized  
17 individual, Dr. Hoffman went to a different division and  
18 he is working out in the Pacific Northwest now, and we lost  
19 very good people from the branch, and we are in a re-building  
20 mode for the past year, and had a difficult time for the  
21 Commission for re-building.

22          I think we have approximately seven or eight  
23 Ph.d's, maybe more, I am not really certain of one or two.

24          The other individuals are mostly masters degrees,  
25 and I think we have one individual with a Bachelor's degree

1 and she started as an intern and has come up with a great  
2 deal of experience, in fact, I am right, she does have a  
3 master's degree. Sandra was involved in these proceedings.

4 Some are very specialized but after coming to  
5 NRC and to work on sites in New England, Florida, California  
6 and in the Pacific Northwest.

7 So, we have one distinct advantage I believe in  
8 that we see sites across the country and in relation to  
9 each other and I think that is an advantage over a number  
10 of geologists who work only in one small area. We can look  
11 at a site in New England, you can look at that relative  
12 to a site in California, for instance, with respect to  
13 faulting, if a fault hazard, earthquake hazard, so I think  
14 that offers some advantage.

15 The section leaders in my branch, there are two  
16 sections, the geo-technical engineering section. They  
17 work on soil, liquifaction, soil structure, interaction,  
18 items like that.

19 Dr. Kellher is a Ph.d with 15 years experience  
20 at the Corps of Engineers, and the head of the geology-  
21 seismology section. As of October or so, Dr. Leon Wirely,  
22 who is a professor at the University of Oklahoma for  
23 a number of years, anchor of the staff, and worked primarily  
24 in strong ground motion and in-field ground motion for Western  
25 sites. We also have available to us approximately, at last

1 count, something on the order of three quarters of a million  
2 dollars per year in branching budget money for outside  
3 consultants. This includes approximately three hundred  
4 thousand for the USGS, approximately two hundred fifty thou-  
5 sand to the Corps of Engineers and all their districts and  
6 a substantial amount of money to members like Dr. Newmark,  
7 specialized seismologists that we need for a particular  
8 case. In this case, we hired a company called Phoenix  
9 Corporation and Dr. Kelleher after he left the staff was  
10 re-hired until December 31st of this year, both those  
11 contracts were void comes the end of December 31st this  
12 year.

13 I think that is as about as much I can give  
14 you, but I think we have a very competent staff, but we  
15 do not profess to know all there is to know about a particular  
16 site region, I think you will see by reading safety evaluation  
17 report that was published by the staff in October and you  
18 try to take, we don't always agree with USGS, we don't  
19 always agree with the licensing and/or the intervenors and  
20 in fact we make our own finding using what we think are  
21 the best elements of all.

22 Just a general comment about the SER, we issued  
23 it, and it is any safety evaluation point in geology and  
24 seismology has a certain level of uncertainty associated  
25 with it, and we make because of the nature of the science

1 you just can't go out and bulldoze all the earth flat and  
2 hose off every rock and see exactly what it is. So we  
3 try to make a conservative finding and we try to put  
4 that in the perspective of the power plant licenses  
5 that we have issued and in the Skagit Safety Evaluation  
6 Report it is not a staff issue, it is not one of the  
7 strongest we had. It was a little bit -- it indicated little  
8 bit more concern than I guess we have in some sites that  
9 we issued but we felt confident to move forward at that  
10 time.

11 Now, the information that the USGS brought  
12 forward eroded that confidence, I guess that is the perspective  
13 I have concluded, and I think that is the posture we are  
14 in right now. Our confidence in supporting the Safety  
15 Evaluation Report has been eroded. I think one important  
16 thing I wanted to say in general is that the faults in  
17 the Pacific Northwest -- let me go back. The fault that  
18 we discovered in the new one, for instance, we feel we  
19 usually look at it for being not capable until we have  
20 been proven capable.

21 CHAIRMAN DEALE: Not capable of what?

22 MR. JACKSON: Not capable of surface displacement  
23 on large migratory grounding motion and that is capable  
24 fault criteria which is in Appendix A, Part 100.

25 So, in simplistic view, in New England, we can

1 approach a fault as innocent until proven guilty, and that  
2 is generally the approach we take with great caution, I  
3 might add with many dollars of investigation by the utility.

4 In California we approach it differently, the  
5 fault is guilty until proven innocent or capable until  
6 proven not capable within the satisfaction of the staff.

7 The Pacific Northwest presents a unique problem.  
8 It is not California, it is not New England, it is some  
9 where between the two, and I think in the SER being issued  
10 in October we took the approach for SKAGIT that in general  
11 although we didn't have a cap on every single fault that  
12 they were generally innocent until proven guilty, if we  
13 had a reasonable basis.

14 Now, based on the Survey's letter, first of  
15 all, my letter to the US Geological Survey after they sent  
16 the questions and the response to me from Mr. Manard  
17 indicating that indeed my perceptions, or our perceptions,  
18 in the branch were correct and that the view of this area  
19 has changed, and we should be extremely cautious  
20 of each fault and should know its length, its location and  
21 its history of movement very well before proceeding, and  
22 I think that is what the change has been. I think that  
23 is the information that you are really soliciting earlier.

24 One has been, what pushed you off the fence  
25 so to speak. I think that is in a nutshell where we are.

1 at this point in time.

2 I think Mr. DeVine will follow up on that.

3 CHAIRMAN DEALE: Again, Mr. Jackson, I appreciate  
4 this orientation, could you just say or speak a few words  
5 about a fault. When does a fault become something you  
6 want to look at or look at again and when is a fault really  
7 an academic fault, but you know, and also, can we talk  
8 a little bit or a little feel about the size of a fault  
9 that, you know that might clearly be something of serious  
10 consequence or possible serious consequence, and then, again  
11 putting it on the other side, what isn't so important?

12 MR. JACKSON: I can't answer your question.

13 CHAIRMAN DEALE: I recognize there are some  
14 times where you might say in New England it is one thing  
15 and in California it is something else but if you would  
16 just give us a feel for the subject.

17 MR. JACKSON: The faults range from all sizes.  
18 From a few feet in length with a few inches of displacement  
19 across the parallel surface to hundreds, in fact, thousands  
20 kilometers in length, total length. So you have a whole  
21 spectrum of faults. When appendix 100 was written, it did  
22 not specify the size of faults in which you should be  
23 concerned about in terms of ground motion except for with  
24 the faults and identifying and making sure certain investi-  
25 gations are done. What it did not do was specify what you

1 do with them after you find them.

2 Now, the way we approach it generally is look  
3 first of all for available dateable stratigraphy in a region.  
4 That means, if you have a fault, if you find a fault in hard  
5 rock, is it covered by units of younger geological materials  
6 which are sufficiently old to allow you to determine that  
7 they have reached 35 thousand years before the last movement  
8 or 500 thousand years before the movements prior to that.

9 Now, we believe, although it wasn't specified  
10 at the time that the Appendix was written, we generally  
11 believe that the intent was to look at the amounts of  
12 off-set low probability events, once in 35 thousand is  
13 three and a half times more conservative criteria than used  
14 in the State of California.

15 California uses one movement in ten thousand  
16 years as considered an active fault.

17 NRC'S capable fault is an active fault for a  
18 nuclear plant terminology.

19 Two things we are concerned about is earthquake  
20 design in terms of a so-called G-value and response spectra.

21 That becomes important, the length of the fault  
22 becomes important in generating or determining the size of  
23 an earthquake that it can generate. The longer the fault,  
24 we generally believe the larger the earthquake can generate.

25 There is another sidelight to that.

1 We also are very concerned about surface  
2 displacement on existing faults under category one structures  
3 are in close proximity to category one structures.

4 So, it is two-fold, capable of surface displace-  
5 ment and capable of large, what we call large migratory  
6 ground motion. Large is undefined. Larger than an earthquake  
7 that would occur within a given region in the country, so  
8 to speak.

9 So that I don't know if that really gets to  
10 the heart of your question.

11 CHAIRMAN DEALE: Thank you very much, Mr.  
12 Jackson. Proceed.

13 Identify yourself again, please.

14 MR. DEVINE: James F. DeVine, Deputy for  
15 Engineering, Office of Earthquake Studies, U. S. Geological  
16 Survery.



DA:mm  
3-1

1 In cases such as the Skagit application it is difficult to  
2 know where to start to review geologic and seismological  
3 problems in response to the purpose of this hearing today.

4 CHAIRMAN DEALE: This is a conference.

5 MR. DEVINE: I'm sorry. I recognize it is  
6 a conference. But I think, suffice to say, that it is  
7 important to understand that this review has evolved  
8 considerably over the length of the review. It is not  
9 a photograph in time and then that portion being reviewed  
10 without any additional outside influence. In fact,  
11 more so than virtually any plant I have been involved with,  
12 and I believe this is site 163 for me, I believe, that  
13 this lack of capturing the picture at one moment to evaluate  
14 where we are going has been prevalent here so much that we  
15 have never been comfortable with our advice to NRC because  
16 of this. What we believe we understand in 1972 was  
17 different in 1973, different in 1974, and so on. And this  
18 has continued to happen. So that our letters to NRC, when  
19 read in context or in conjunction with other letters we  
20 write, you will note this lack of certainty or concern  
21 about the uncertainties of our judgments. This is combined  
22 with what turned out to be a very complicated geologic  
23 domain to begin with. The data base that exists in this  
24 region is quite small relative to data bases in other

25

1865-033

2  
1 regions and relative to the complexity of the region.  
2 Consequently, we are finding significant new information  
3 frequently. The major difficulty all along has been,  
4 one, uncovering sufficient information to feel that we  
5 could cover the uncertainties in some sort of judgment.

6 We have attempted this a couple of times and  
7 caveated our letters because of our uncertainties. The  
8 last one which caused this current go-round was the  
9 sentence we have in our transmittal letter which stated,  
10 "This supplement was prepared prior to the completion of  
11 a review of certain proprietary seismic profiles which  
12 had not yet been received by U.S. Geological Survey.  
13 Any impact of the review of these profiles will be  
14 transmitted at a later date." I have the second caveat.  
15 Now, a lot has been said back and forth concerning these  
16 profiles and I would like to put them in perspective to  
17 start with.

18 I cannot go to a case and bring out one profile  
19 and put it on the wall that everyone here would agree that  
20 changes the picture dramatically. That's just not the  
21 nature of this fault. What we have in these profiles again  
22 is an evolving understanding of -- an evolving  
23 interpretation is of the structures that are being  
24 reflected by these profiles. It is a very  
25 difficult and time-consuming and very complicated process  
to arrive at these interpretations. And, consequently,

3  
1 it is very easy for a variety of very competent,  
2 professional geophysicists to look at these records and  
3 arrive at different conclusions. It is very, very  
4 difficult to prove that one is absolutely right and the  
5 other is absolutely wrong. This, again, makes it difficult  
6 to make points or make conclusions that all parties can  
7 understand and can accept. So, when we talk about, in our  
8 latest letter that you received this morning, the impact of  
9 the seismic profiles, again, I think, reflects the broad  
10 picture. We see on one a few indications that caused our  
11 people to look at more, caused our people to ask more, and  
12 it develops an overall picture eventually which led us to  
13 ask for more time to study this and more time to develop  
14 an overall position.

15 This position is still evolving and I have  
16 with me the latest sketch by a geophysicist looking at  
17 these profiles and in order to provide this information  
18 to you today, I received it this morning. I had one  
19 by Federal Express Friday that has been superseded by  
20 the one I received this morning. I say this because it  
21 is truly the situation that this whole picture is developing  
22 here. It has been ever since we have been involved in this  
23 review, because there is not this huge data base that all  
24 parties agree, yes, this is the science; this is where we  
25 start. We have had arguments with all parties, and I mean all

1 parties, about the major, major understandings of the  
2 implacement of the rocks in the Pacific Northwest. And  
3 we have had disagreements with virtually everybody in  
4 this room at one time or another on significant points  
5 concerning the basic tectonics of the Pacific Northwest.  
6 So, it is difficult for us then to proceed in some sort of  
7 understanding i.. the levels of certainty that we understand  
8 is required for the position for NRC to adopt.

9 CHAIRMAN DEALE: Mr. Devine, I don't want to  
10 distract your train of thought, but I would like to have  
11 you include in the presentation, and this seems a good  
12 point to make it, a comment or two about this data base.

13 ME. DEVINE: Yes.

14 CHAIRMAN DEALE: And about the relative lack  
15 of sufficiency of the data base in the Northwest or in  
16 the State of Washington in particular, of course, as  
17 against data bases elsewhere so that when you make a  
18 geological seismological survey in one area of the country, you  
19 are more competent or can be more comfortable or not so  
20 many open questions. But when you make it apparently in  
21 the Northwest or in Washington, there are numerous  
22 questions because -- not because of the data shown but  
23 evidently because of the data which is not shown. This  
24 is what I understand you to say. Proceed. Mr. Linenberger  
25 has probably another question here that ----

1865 036

3  
1 MR. LINENBERGER: Interestingly enough,  
2 directly related to your question, presumably the tectonic  
3 complexity of the area is one of the sources of difficulty  
4 here. But is perhaps history another source of difficulty  
5 in that sociological and industrial development of this  
6 area has come perhaps a little more recently than in other  
7 areas of the country so that investigations had not --  
8 didn't start as long ago as they have here. Is it a  
9 combination of the two or just the tectonic complexity?

10 MR. DEVINE: It is very probably a combination  
11 of the two but the predominance of the impact would  
12 be the former, the tectonic complexity plus the fact that  
13 the area is just very difficult to observe. I reached for  
14 my briefcase in response to your question. This is a  
15 map of seismicity in California. One would never need to  
16 go to the State of California or go out into the field  
17 and could tell very quickly where the major faults are  
18 in central California based strictly on the locations of  
19 earthquakes. If I had available an assembly sheet of  
20 the earthquakes in the Pacific Northwest, you see almost  
21 an even distribution -- some concentrations -- but you  
22 do not at all see the deep lineations so predominant as  
23 you see here on the San Andreas Fault. The nature of the  
24 occurrence of the events are not similar. It is a much  
25 more complicated problem. In general, the earthquakes are

6  
1 deeper in the Puget Sound region, they do not correlate to  
2 known faulting so the tectonic problem is just much  
3 more difficult to cope with than in Central California.  
4 On top of that, here you can go and walk for miles and  
5 never leave the trace of the fault, physically straddle the  
6 fault in Central California for many kilometers and it  
7 is just not possible to do that in the Pacific Northwest  
8 even when you discover there is a fault, it is difficult  
9 to project it very many kilometers. You pick up another  
10 outcrop many kilometers away and then it is a matter of  
11 interpretation whether it is the same fault or not. There  
12 is no question in Central California when you have a fault  
13 which one it is and which one is generating the earthquakes.  
14 That is not true here.

15 MR. HOOPER: I have a question of  
16 Mr. Devine. Are you saying that the reasons that we are  
17 having this evolution of ideas about the seismology here  
18 is primarily because of new pieces of specific information,  
19 or is it primarily because of the evolving picture of  
20 the regional tectonics or is it both of these?

21 MR. DEVINE: It is both of those and it is how  
22 to judge the impact of each specific piece of information  
23 that we obtain.

24 MR. HOOPER: Put it a little bit differently.  
25 If the rest of the world had done nothing except Puget Power,

1 since the -- and had learned nothing or had not studied  
2 the Northwest, and the only new information that we had  
3 or have to work with came from the specifics of the  
4 Applicant here, the work that he has done, would this have  
5 been a different situation? In other words, would you have  
6 been able to make definitive statements about the safety  
7 of this plant if there had been nothing else?

8 MR. DEVINE: The answer is: I don't know.  
9 Because we had not reviewed it in the light of nothing else  
10 so consequently to see it sterile, with just the  
11 applications themselves, I could not judge because I don't  
12 have the -- I can't wipe out the other knowledge and to think  
13 of only that which they supply.

14 MR. HOOPER: Well, I ask another  
15 correlary question: If there hadn't been any outside  
16 discoveries, completely independent of this hearing, would  
17 it have been easier to make a judgment as to this?

18 MR. DEVINE: Well, it may have been easier to  
19 make a judgment but I am not sure it would have been  
20 easier to make the right judgment.

21 MR. HOOPER: That's what I wanted to know.

22 MR. DEVINE: Okay. The evolving picture I  
23 think is important because this is the impact of the  
24 seismic profiles. Some of those profiles were looked at  
25 by the Survey and by NRC many years ago and in the light

1 of what was understood then the problems weren't identified  
2 the way they can be today. The Applicant hired the  
3 world's expert on the seismic profiles and we relied on  
4 his judgments also. And, he did not see problems then  
5 that our people feel that we see today. So it has to be  
6 an evolving picture. Now, to project from that, the major  
7 impact of this faulting offshore is not that we see  
8 a significant individual fault there capable of generating  
9 an earthquake in excess of the plant's design, that's  
10 not what it says. What we do see though are offsets in  
11 profiles which the most -- to our judgment -- the most  
12 logical interpretation of those offsets would be that  
13 they reflect faults and that these faults indeed break  
14 very near and, in some cases, break the surface of the  
15 sea floor. Consequently, the horizons at the sea floor  
16 go beyond in the neighborhood of 20 to 10 thousand years.  
17 Since they have been offset we feel that the best and  
18 most logical interpretation of those offsets are that  
19 they are faults and that they are young faults, and that  
20 they should be considered to have the possibility of  
21 connecting with the faults that we see in the deep  
22 penetration profiles in the region, combined with the  
23 shallow penetration high resolution we think develops  
24 a picture of -- that can be interpreted to be -- young  
25 faulting in the area of the profiles.

1865-040



1           The most logical, in our judgment, way to  
2 hook up these offsets from one profile to another result  
3 in postulating northwest/southeast running faults in the  
4 Sound. Combine that picture, again no specific fault that  
5 is the culprit but a picture of northwest/southeast family  
6 of faulting which we interpret could be young leads us to  
7 the onshore area where Professor Whetten and others  
8 have been mapping the Clearlake Quad on a survey project  
9 separate from the Skagit review but includes the area  
10 of the Skagit and is of interest to the Skagit plant.  
11 And it is with this concern about what we interpret to be  
12 offshore which causes us to look at Professor Whetten's  
13 mapping onshore in a different way. John will discuss  
14 with you what evidence you wish the specifics of this  
15 mapping, but I'll steal the end conclusion to keep it in  
16 context with the offshore and that is that we do not -- he  
17 does not see evidence onshore of capable faulting. He  
18 sees evidence onshore of faulting that is best interpreted  
19 to be northwest/southeast high angle faulting, which we  
20 feel could be and may be similar to the offshore faulting  
21 consequently the interpretation of relative young movement  
22 offshore must be considered possible or certainly has  
23 not been precluded onshore unless you can come up with  
24 specific evidence to show that they have not moved.  
25 Doctor Jackson's comment about capable until proven not.

1865 041

10 1 capable. We intend to switch from one side to the other  
2 as a result of this offshore interpretation. And we feel  
3 now it is important to show that any fault identified in  
4 the onshore region with a northwest/southeast trend  
5 of significant length needs to be demonstrated to be  
6 non-capable. Otherwise, we feel in our judgment ought to  
7 be considered the possibility of being capable and it  
8 is that picture that caused us to write the memo that you  
9 have there.

10 CHAIRMAN DEALE: Sir, you have used the word  
11 "profile" a number of times. There are all kinds of  
12 transex, aeromagnetic pinger tranducers soundings and  
13 reflection patterns and so forth. When you use the word  
14 "profile" what do you mean?

15 MR. DEVINE: Talking about two seismic marine  
16 profiles, two types of seismic marine profiles. That which  
17 is configured to get a deep penetration of the energy and  
18 has a general picture of a great depth, one kind of  
19 seismic profile. The other is a shallow penetration but  
20 high resolution seismic profile to look at great detail  
21 of the first hundred feet or so of the ground beneath  
22 the water.

23 CHAIRMAN DEALE: But is this looking at  
24 magnetic anomalies or sonic ----

25 MR. DEVINE: These are all seismic profiles.

1865 042

11

1 This is seismic energy transmitted from a shift into the  
2 rock reflected by the horizons of the rock recorded on  
3 seismometers being towed along by the shift in the water,  
4 recording the seismic signal in return.

5 CHAIRMAN DEALE: Thank you.

6 MR. DEVINE: When, and it is a complicated  
7 process because a lot of massaging of the data to make it  
8 intelligible. And, consequently, I'm not prepared and  
9 did not bring our geophysicist to talk at great length  
10 about these profiles because I felt it would be unuseful  
11 at this stage. One, we need to eventually resolve these  
12 questions to talk at great length with geophysicists and  
13 the Applicant and NRC before we'd be able to speak at a  
14 hearing -- or a conference such as this on a detail. I  
15 do have the general picture showing how many of these  
16 places our geophysicists suggest that there are offsets  
17 of relative recent age and I can show that to you if you  
18 wish to see that. It's not easy to interpret openly.

19 When we met with NRC and the Applicant in  
20 October we concentrated on the seismic profile as it has  
21 been run in this area. And our concern that we find  
22 careful ----

23 CHAIRMAN DEALE: Excuse me. Where is the  
24 area? Could you identify it.

25 MR. DEVINE: This is the Puget Sound, these are

12 1 the San Juan Islands, Sammish Bay, Dulligan Bay; the  
2 plant would be roughly there. So, again, none of the  
3 faulting that we interpret to be in the seismic profiles  
4 here are we projecting in and of themselves to go into  
5 the site area. That's not the picture. What we see here,  
6 though, are offsets that we interpret to be or feel that  
7 the most logical interpretation is. Reason: faulting  
8 offsets. And when you go from one profile to another  
9 you get a pattern of northwest, southeasterly structures.  
10 Again, these are interpreted to be that. We have not  
11 yet seen a specific fault because that's not the nature  
12 of seismic profile data. You see a single vertical line  
13 reflecting what came off on that vertical plane. And,  
14 you get offsets that can be interpreted to be many items.  
15 They can be swamping in the sea floor; they can be a  
16 termination of one strata at the horizon just by the fact  
17 that it was never deposited beyond that point. There are  
18 many interpretations that can come from a signal on a  
19 seismic record, but taken in context we feel the most  
20 logical explanation of this variety of young picks is that  
21 the bulk of them reflect young faults.

22 MR. HOOPER: Mr. Devine, is part of the data  
23 base that you are using here some of the profiles that  
24 Dr. Dolbrin has already presented as evidence in this  
25 case or is this -- are these entirely new profiles?

13

1 MR. DEVINE: They're both.

2 MR. HOOPER: They're both. So some of the  
3 profiles that Dr. Dolbrin has shown us in these hearings  
4 are included in what you are talking about.

5 MR. DEVINE: Yes.

6 MR. HOOPER: Thank you.

7 MR. DEVINE: And I'm qualifying new in meaning  
8 new to our people seeing them.

9 CHAIRMAN DEALE: I want to make sure that I have  
10 absorbed what you pointed out. The concern which the  
11 geological survey has raised is related to or based on  
12 observations which are offshore observations and the  
13 relationship between the observations offshore and the  
14 observations onshore.

15 MR. DEVINE: That's very important. Yes.

16 CHAIRMAN DEALE: So that the -- well, that's it.  
17 It isn't simply oh, there's a fault or as you say an  
18 offset -- that's my next question is: What is an offset per  
19 a matter of terminology? What do you mean by offset  
20 instead of a fault. It might help.

21 MR. DEVINE: When looking at a seismic profile  
22 and you have a predominant signal that comes back, which  
23 shows a particular horizon in a vertical plane and you see  
24 the horizon here and here it's offset there's more than  
25 one interpretation as to what happened there. That's why

14  
1 I was careful to say offsets. We know they're offsets but  
2 that's interpreted to be faulting. Because it may be a  
3 variety of other reasons caused this picture to look this  
4 way. A common reason is faulting.

5 CHAIRMAN DEALE: But the concern, at least --  
6 not at least -- but the major part of the concern has been  
7 triggered by the relationship between faulting or offsets  
8 that are offshore, that is, they're undersea.

9 MR. DEVINE: Yes.

10 CHAIRMAN DEALE: And the faulting and offsets  
11 that are onshore -- which are on land ----

12 MR. DEVINE: That's right.

13 CHAIRMAN DEALE: And the -- you perceive, let  
14 us say, a relationship between the way these faultings and  
15 offsets run that they may be or there may be a connection  
16 which would suggest a later -- longer faulting or offset  
17 than appears immediately to be when you're looking at one,  
18 two, three or four along the, let's say, along the surface  
19 of the land.

20 MR. DEVINE: That's mostly true. One aspect  
21 could be developed more. And that is hidden. It could  
22 very well be the case that none of these specific faults  
23 project onshore and are any longer. But the relationship  
24 of the style of the faulting and the similarity of their  
25 nature reflect a similar origin and therefore one would

15 1 suspect to have similar earthquake generating potential  
2 today.

3 CHAIRMAN DEALE: Okay.

4 MR. DEVINE: One comment I think is useful on  
5 this and that is the reason we rely on the offshore to  
6 look at onshore are two: One, there are young horizons,  
7 young stratigraphic horizons in the Sound that are not  
8 being eroded away, they've been deposited there in normally  
9 recent age, to allow us to do age date or age estimates.  
10 Onshore the faulting that Dr. Whetten will show you he is  
11 mapping, there are no young horizons that cross it that  
12 show when it did or did not move last. So we have a  
13 fault there that displaces rocks many millions of years of  
14 age, but we don't know whether they were displaced yesterday  
15 or many million years ago. So, we rely on the young  
16 horizons offshore to give us this feeling of purpose and it  
17 is not a precise picture.

18 MR. LINENBERGER: Not to get into any technical  
19 detail here but when you characterize these profiles in  
20 this way should I view them as consistent with the ocean  
21 floor doing something like this or doing something like  
22 this?

23 MR. DEVINE: Theoretically, it is possible to  
24 be either.

25 MR. LINENBERGER: But would either one give you

16  
1 a response ----

2 MR. DEVINE: It's possible to get that picture  
3 from either of those motions you describe. For example,  
4 if the bedding were tilted and you moved it this way and  
5 took a picture of it it could go somewhat like this. But  
6 if the strata, if the bedding are known to be flat-lying  
7 one would logically assume that that reflects vertical  
8 offset. But it is not an absolute truth.

9 MR. LINENBERGER: Is there any fundamental  
10 reason for assigning one versus the other as being more  
11 dangerous or undesirable from the plant structural point of  
12 view? Or, from your analysis point of view, let's say?

13 MR. DEVINE: Yes. If these offsets can be  
14 demonstrated to reflect other than faulting, it reverses  
15 the interpretation that we've applied to this region on  
16 the onshore region.

17 MR. LINENBERGER: No, I meant the two types of  
18 motion.

19 MR. DEVINE: Okay. Oh, I see.

20 MR. LINENBERGER: Are they both equally ----

21 MR. DEVINE: I think they both result in our  
22 writing a letter about the way we wrote it, whether it  
23 would be interpreted to be horizontal or vertical.

24 MR. LINENBERGER: Thanks.

25 MR. DEVINE: What would change it is if they



17 1 could be interpreted to be other than faulting with some high  
2 degree of confidence.

3 MR. LINENBERGER: You're not specific here as  
4 to whether these indicate high angle or whether they  
5 reflect some sort of a strag-slip motion or something like  
6 that.

7 MR. DEVINE: That's only a slip in our letter  
8 we mentioned. Our geophysicists interpret this to be  
9 high angle.

10 MR. HOOPER: This is a question which we are  
11 troubled with and yet I think it -- you may have answered  
12 it or at least touched upon it. You've indicated that  
13 your letter and the conclusion in it of erosion of  
14 competence in what you had previously written, was an  
15 evolution -- you know -- you didn't say, "My goodness  
16 there's the profile and we've got to change everything."  
17 It isn't that easy. I mean you've looked at one thing and  
18 you looked at it again and again and then you picked up  
19 another piece of information and you put that information  
20 with what you've been looking at again and again and well,  
21 that indicates something else that you let us say hadn't  
22 seen before. My general question is: Could you indicate  
23 what is what are samples of this new information which you  
24 had received which you used in conjunction with a lot of  
25 older information which you already had that said we've got

13 1 to do something here.

2 MR. DEVINE: Yes. I think this can best be  
3 described by Dr. Whetton's mapping onshore on how this  
4 picture evolved in his mind and his mapping. The same  
5 point applies to the offshore data, but it's a little  
6 difficult to explain on the very complicated profiles how  
7 one evolves from one to the other. I believe it would be  
8 best answered when you hear Dr. Whetton's onshore mapping  
9 picture.

10 MR. LINENBERGER: I was just talking about  
11 identity of the information, the relatively new information,  
12 which prompted the conclusion. You're suggesting that  
13 Dr. Whetton's information is certainly part of it and some  
14 offshore information too.

15 MR. DEVINE: Yes.

16 MR. LINENBERGER: Okay.

17 MR. DEVINE: First I'll make one quick comment  
18 concerning offshore and then hopefully Dr. Whetton's  
19 explanation will answer the onshore. And that is when our  
20 geophysicist began to look in great detail at some of these  
21 profiles, he gave me a call one day and said, "I was under  
22 the impression that there was no sea floor offsets on these  
23 profiles". And I said I hadn't studied them but that was  
24 my impression. He said, "Well, I think I see one." From  
25 just one offset he thought he saw, to now, I have a list of

19 1 four or five pages of picks that we interpret to be offsets.  
2 So the first day he called was only the first one and now  
3 we have many.

4 MR. LINENBERGER: I see.

5 MR. DEVINE: So again, it was an evolving thing  
6 that one offset by itself could be a swamp, it could be  
7 a channel fill, it could be a variety of things -- it wouldn't  
8 necessarily have to be faulting. But, five pages of picks  
9 all which tend to give this overall judgment that it's  
10 faulting. That's the picture that's important in our  
11 judgment.

12 MR. LINENBERGER: And these are offshore?

13 MR. DEVINE: Yes, these are all ----

14 MR. LINENBERGER: Thank you.

15 MR. DEVINE: Again, I apologize for the use  
16 of jargon without explanation he tells me I use it with  
17 "pick". A pick is anytime a geophysicist sees a  
18 disturbance in some horizon within the profile he marks  
19 it and it's called a pick.

20 MR. LINENBERGER: Well, thank you very much.  
21 Mr. Devine, we appreciate it.

22 CHAIRMAN DEALE: Mr. Whetten.

23 MR. WHETTEN: My name is John Whetten. I am  
24 employed by the University of Washington and also by the  
25 U.S. Geological Survey. I have been employed by the

20  
1 USGS since about 1975 doing a variety of regional mapping  
2 tasks in the Northwest.

3           The assignment which got me involved in the  
4 Skagit Nuclear Power Plant was an assignment to do the  
5 bedrock geology of what's known as the Port Townsend  
6 Quadrangle which, briefly to illustrate, Seattle is down  
7 here and this is Everett, Mount Vernon, southern part of  
8 the San Juan Islands. I was asked to do this because of  
9 some prior experience I had had working in the southern,  
10 southeastern part of the San Juan Islands and I was asked  
11 to extend my work eastward into the foothills of the  
12 Cascades and compile and complete this map on a scale of  
13 1 to 100,000.

14           This is a relatively large scale map of such  
15 type that the Survey is largely doing at this time. Towns  
16 of Burlington and Sedro Woolley are here, the proposed  
17 power plant would be approximately here. In order to do  
18 this map in the area of the complex geology of the  
19 foothills of the Cascades, I decided to work on a smaller  
20 scale map and on a map of an inch to the mile -- scale of  
21 1 to 62,500 and map the Crillic Quadrangle, which would  
22 be a part of this regional mapping program. Because of  
23 one problem after another the topographic base was not  
24 suitable, we mapped on still a different scale which was a  
25 scale of 1 to 24,000 which is now a scale of 1 mile to

21

1 approximately 2-1/2 inches on the map. And, these four  
2 quadrangles, when completed will be the Clearlake Quad and  
3 these quadrangles will be reduced ultimately to the  
4 Clearlake Quad which will be the publication scale.

5 What we've attempted to do is to essentially make an  
6 outcrop map of the bedrock outcrops which are in the area.  
7 I should say, also, associated with me in this project are  
8 Paul Carroll, a graduate student who was associated with  
9 me in the bedrock mapping of the area, and David DeChair  
10 who is an expert in the glacial geology and he has done the  
11 glacial and recent deposits in the area.

12           Since the end of last April the three of us have  
13 done very little else but do the geologic mapping of these  
14 three quadrangles. This one is now published on open file  
15 by the U.S. Geological Survey and these two will be  
16 published on open file shortly and the work in this one is  
17 about 20 percent completed and we'll get that done as fast  
18 as we can.

19           All of this has been to cause us to map in  
20 much more detail than we would have liked; necessitated  
21 in part because of the lack of an adequate topographic  
22 base but necessitated also by the complexity of the  
23 geology which we encountered. Since we focused so much  
24 time in this little area we're sort of in the position of  
25 a person who draws an elephant and spends too much time on

22 1 the leg and you can't really see whether you're dealing  
2 with an elephant or a rhinoceros. The overall picture is  
3 difficult to come by. On the other hand, had we started  
4 the other way we might not have known how many legs the  
5 animal had. So it trade-offs either way.

6 On this you'll see various color patterns, these  
7 are colors of bedrock units that we've mapped; most of  
8 the map is white. This is because we mapped it as glacial  
9 or recent sediment cover as an indication of how little  
10 bedrock there really is and even that has changed somewhat  
11 most of the white material is covered by trees and  
12 vegetation and the glacial material isn't very well exposed  
13 either.

14 You'll also see some scattered outcrops showing  
15 up through the map -- little black specks here -- these are  
16 outcrops which stick up through the glacial material which  
17 we have noted and mapped.

18 CHAIRMAN DEALE: At this point could you just  
19 point to some key geographical features in the area ----

20 MR. WHETT: I'm sorry.

21 CHAIRMAN DEALE: ---- it is a little hard on  
22 this map to see exactly where you are talking about.

23 MR. WHETT: I meant to indicate that this  
24 is the geology which is lifted from sheets which I guess will  
25 be the official maps which are aerial photographs or mosaic

1 aerial photographs which show the geography better than we  
2 have on these geology sheets. Here is Lake Cavanaugh for  
3 example, the Stillaguamish River. To locate you on these  
4 maps this is the Skagit River across here, Gilligan Creek,  
5 Loretta Creek, Day Creek, Walker Valley area is down in here,  
6 Coltis Mountain, Lake Cavanaugh is here.

7           Essentially, the area south of the plant,  
8 immediately south of the plant site -- not included in the  
9 plant site.

10           We have shown here, in color, the bedrock units  
11 and the isolated outcrops of bedrock which stick up through  
12 the glacial cover and trees.

13           We have shown in yellow, the faults which we  
14 infer to exist in the area. Starting, perhaps, with this  
15 one, in the northeast quadrangle this is a thrust fault  
16 which we believe to be very old. It is significant only  
17 in that it was the first real controversy which resulted  
18 from my work -- controversy between my views and the  
19 understanding of other geologists who have mapped in the  
20 area -- which led us to reinterpret much of which has been  
21 done previously. Even at the time I don't think anyone  
22 considered that this fault along here could be an active  
23 fault but it was very important in setting sort of the  
24 basic tectonic framework for the area. The other faults are  
25 potentially more serious in the sense that there is evidence

1 that they -- most at least -- have moved since a basic  
2 timemarker of this fault up here. You see a very long one  
3 extending northwest diagonally across the map, you see  
4 segments of others -- this we believe to be one we're not  
5 sure what happens to it in here, whether it's offset by  
6 another fault that comes across here -- quite what happens  
7 to it.

8 Most of these faults are shown by dotted lines.  
9 That indicates that they are concealed faults and this is  
10 one of the handicaps of working in the area is that there  
11 are very few places where you can actually put your finger  
12 or your foot and say, this is in fact a fault. The  
13 inference of a fault comes from several lines of evidence.  
14 One, probably, which is relied upon in terrains like this  
15 by geologists who work in this sort of country, is simply  
16 that the linearity of contacts between different rock units.  
17 It's very difficult to explain the law of linear contrasts  
18 between different rock units as being something other than  
19 a fault. That's a general statement and there are  
20 exceptions but I think it pertains to the area we are  
21 dealing with here.

22 I mentioned northwest trending faults. This  
23 one, this one we believe to have reestablished; it was  
24 originally mapped by a coal geologist named Jenkins in 1924,  
25 one of the original workers in this area. The faults that

1865 056



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1 trending more east/west, these two are part of the  
2 Devil's Mountain fault system which has been known for  
3 some time and has been described earlier. And, I believe  
4 in terms of these proceedings, has been considered by the  
5 Survey Review Team and by the NRC as being a capable fault.  
6 The problem that Mr. Devine spoke about in terms of the  
7 difference between this area and California and that in  
8 California it is actually possible to walk out the faults  
9 for a distance of many kilometers whereas here it's not.  
10 That's certainly demonstrated in this area. Taking this  
11 fault here, for example, we think we have evidence for it,  
12 in this particular area we think we have evidence for it in  
13 here, we have evidence for it here, we have evidence for it  
14 in here, not in the intervening areas. We essentially have  
15 to, on the basis of best judgment and interpretation that  
16 we can do, link these up. I have extended that fault quite  
17 far to the southeast because I think a similar fault is  
18 required to explain differences between here and here.  
19 We've got very little to go on in here except a very large  
20 landslide which almost certainly covers the fault and an  
21 area of non-exposure in the intervening area. It is,  
22 obviously, in the area of interpretation but that is the  
23 best I can do. Perhaps, you have questions.

24 MR. LINENBERGER: Here, again, I guess, more  
25 terminology to help assist our understanding. What do you

1865 057

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1 Gentlemen generally mean when you speak of a high angle  
2 fault or high angle offset?

3 MR. WHETTON: High angle faults are normally  
4 distinguished from thrust faults which tend to be at a  
5 more gentle angle. In this case the old faults are  
6 recognized as thrust faults, such as this one here is.

7 The other faults are a high angle, presumably  
8 vertical or near vertical. Our inference is that they are  
9 younger than that thrust fault and, in some cases, very  
10 much younger than the thrust fault. For instance, this  
11 thrust in here is probably on the order of 100 million  
12 years or younger. This high angle fault cuts rocks, this  
13 one, cuts rocks which are 50 million years old or perhaps  
14 slightly younger and would clearly be of a different  
15 generation or different age from the thrust fault.

16 MR. LINENBERGER: Well, I would infer from  
17 what you said that you tend to correlate higher angle with  
18 younger age; is that --

19 MR. WHETTON: It is essentially a convention  
20 that is arising in this particular area because the thrust  
21 fault is known to be old. But the other faults misnamed  
22 colloquially "high angle faults" are younger. But the  
23 angle of the fault has nothing to do with its age.

24 MR. HOOPER: What direction of motion are you  
25 proposing for these so-called high angle faults? Is this

1 a vertical motion or is it a horizontal slipping -- in  
2 other words, the line -- I think that's Mr. Linenberger's  
3 question. If we realize it is a crack --

4 MR. WHETTON: That's an excellent question,  
5 but it comes to the point of the elephant and the elephant's  
6 foot again. And the thing we need to know for sure, we are  
7 going to have to map a much larger area than what we have  
8 now. I, as a result of mapping in the Devil's Mountain  
9 fault along here, I am quite sure that, at least, some of  
10 the motion has been lateral motion, strike-slip motion.

11 On these other faults I am not quite sure.  
12 And either way is still permissible.

13 MR. HOOPER: But the point in bringing up  
14 high angle is to demonstrate, or is to clarify the relation  
15 between these faults and the shucks and thrust fault; is  
16 that correct?

17 MR. WHETTON: Or whatever.

18 MR. HOOPER: Yes, that is --

19 What is the significance of the differences in  
20 the colors of the various rock types on either side of the  
21 fault line? Does this give you any indication of any  
22 major motions? I remember in the case of the Devil's  
23 Mountain fault, that you proposed some large tectonic  
24 movement to match up rock types in the San Juan Islands  
25 with those on the mainland. Does this fit into that same.

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3  
1 general category of motion to matching up various types  
2 of rocks? Do these colors along these fault lines show  
3 anything of that sort?

4 MR. WHEATON: I wish it did, but at this  
5 particular point in time, it doesn't.

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1 CHAIRMAN DEALE: From the standpoint of earth-  
2 quake potential, which of the two faults we should worry  
3 about more, the thrust fault or the high angle fault, or  
4 is there a correlation?

5 MR. WHETTON: Well, in a general sense, given  
6 both faults being active, I would like to defer that  
7 question to the seismologist to answer.

8 But in terms of here, this fault can't possibly  
9 be active. It is cut off at the roots, as it were, and  
10 there is no possibility that it is.

11 The concern is with our inability to date these  
12 long linear faults which are shown here. We can date, as I  
13 indicated; this one in here, for example, cuts rocks that  
14 are approximately, give or take a few million, 50 million  
15 years old on the south side, and perhaps on the order of  
16 160 or 170 million on the north. Those are -- that is the  
17 only time constraint that we have, is that the motion must  
18 have been post-fifty million years except for the fact that  
19 there are glacial deposits which cover the fault, of  
20 approximately 14,000 years old, which, as far as we can  
21 tell, do not appear to be disturbed.

22 Now, I am not an expert in the glacial record  
23 nor is trying to determine recent activity of faults really  
24 in my line. But I think that statement should be qualified  
25 that these faults are covered, not only by sedimentation

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1 but by extensive vegetation and the exposures, where you  
2 might like to have them, for the most part, just are not  
3 there, but, it does cut across the very striking linear  
4 topography that we believe to be of glacial origin and does  
5 not seem to be affected by the faults.

6 From my point of view, I think it is safe to  
7 say that there has been no movement of these faults since  
8 the last glaciation and the only other time record we have  
9 prior to that is of the age of these particular rocks which  
10 are classified as faults and that is where the marine record  
11 becomes important.

12 MR. HOOPER: How does this match up in position  
13 and in direction with the marine records that you have  
14 offshore?

15 In other words, if you continued these lines,  
16 they would not necessarily even intersect the same area,  
17 would they? But, what you are saying here is they have a  
18 similar directional component to the northwest as the  
19 offsets that you are seeing in the marine sediment.

20 Is that the hypothesis that is being advanced  
21 here?

22 MR. WHETTON: Like Mr. DeVine, I will put his  
23 word in. From my point of view, I don't think that there  
24 is -- even if these were aimed directly at something which  
25 we see several tens of miles to the northwest, there is

1865 062

1 really an insufficiency of data that we want to, at least,  
2 with any degree of certainty, be very careful before tying  
3 one into the other.

4 MR. HOOPER: But is the similarity of angle  
5 of that --

6 MR. WHETTON: The northwest trending fault is  
7 very significant --

8 MR. HOOPER: -- maybe one would not intersect,  
9 yes, but maybe they would not intersect, but if they are  
10 going at the same angle, you say this is the part that  
11 sor of -- that connects up the two things?

12 MR. WHETTON: That is right.

13 MR. HOOPER: One of the points, all right.

14 CHAIRMAN DEALE: Mr. DeVine?

15 MR. DEVINE: John, you might show on the other  
16 map where your map is relative to the offshores.

17 MR. WHETTON: The area that I am working in is  
18 essentially in here, (indicating on the map on the blackboard)  
19 and these are the faults.

20 MR. DEVINE: In between there is an area of  
21 no data. In between this mapping area and the offshore  
22 profile is an area of no data, and you might explain why.

23 MR. WHETTON: Well, with no rocks exposed, it  
24 is very difficult to get seismic profiles for shallow waters.  
25 Probably a thick, recent sediment cover and deltaic and

1 shallow water sediments.

2 CHAIRMAN DEALE: Thank you very much, Dr.  
3 Whetton. We appreciate it.

4 Mr. Black?

5 MR. BLACK: I believe that that will conclude  
6 any presentation that we may have on geology/seismology  
7 issues. I would only state that insofar as the rest of  
8 your agenda on the geology/seismology, you asked for an  
9 NRC staff position relative to these new interpretations  
10 and suffice it to say now that we have no position with  
11 respect to these new interpretations and it only says  
12 further work will be required in this review and how  
13 long that work will need to be done, and how much more time  
14 will be needed for the Skagit review. I believe now that  
15 we are estimating that it may take somewhere from eight  
16 months to perhaps over a year.

17 It is dependent on many things. I think that  
18 is just the best estimate.

19 So, obviously, we are at this time -- our best  
20 estimate as to when we can resume hearings on geology/  
21 seismology issues would be over a year from now and I  
22 guess I can't add anything more than that.

23 MR. LINENBERGER: Well, I have a question here,  
24 Mr. Black, on that point.

25 I guess I don't quite understand how it is



1       how it is decided who will move at what speed and in what  
2 areas to collect the new information. Let me say this  
3 by way of explanation. Dr. Whetton is apparently doing  
4 some ongoing work here that started some years back and will  
5 continue for some length of time for USGS purposes and this  
6 will certainly be valuable information to the Skagit pro-  
7 ceeding.

8                 Now then, that work will go at a certain pace.  
9 There are certain other types of information that have been  
10 asked for that won't come from Dr. Whetton. Maybe some of  
11 the same types of information Dr. Whetton will be getting  
12 could be achieved more rapidly if his consultants worked on  
13 it. So, I guess I am just casting about blindly here trying  
14 to understand how it will be decided that this information  
15 will be obtained and at what pace.

16                MR. BLACK: I think Mr. Jackson will respond to  
17 that.

18                MR. JACKSON: I can comment briefly from a  
19 range perspective in our current workload projections.

20                In my letter to the projects division that we  
21 work for, I indicated that I thought it would be at least  
22 a year before this round of questions would be answered  
23 and that is just my best judgment, seeing what it has taken  
24 to answer the last set of questions and the work involved.

25                In addition to that, I indicated earlier that

1 it could take up to three years because we have limited  
2 work: this work indicates a limitation of work north of  
3 the plant site.

4 The workload priorities within the branch  
5 have been clearly defined to include limited work construction  
6 permits by my branch. This will be deferred as a very low  
7 priority review in the foreseeable future; unless, from my  
8 management chain, as I best understand it right now, and  
9 this is a result of Three Mile Island task plant implemen-  
10 tation, and those schedules have not been completely worked  
11 out yet, and they will be in the next several weeks, as  
12 I understand it.

13 Even within our own branch, we have numerous  
14 problems. We feel, in our judgment, that it will take a  
15 long time to gather the data base to let's say, revive our  
16 confidence and then we see that as several years from now.

17 MR. HOOPER: When you make the estimate -- when  
18 did you say, one to three years, or several years? Does that  
19 assume that you are going to be getting information from  
20 the applicant during this period, or does it assume that you  
21 and the USGS are going to be doing most of the work, or a  
22 combination --

23 MR. JACKSON: No, it assumes that work from  
24 the applicant -- as an example -- we have expended approxi-  
25 mately two man years per year out of my branch on this site

1 since 1974. That is greater than any other site that has  
2 ever been reviewed by the branch, and a greater review effort  
3 than any of the survey has done to date.

4 We can no longer, in my view, sustain that  
5 kind of effort. We will reduce it to probably a one-half  
6 to one-quarter man within the branch and limit the resources  
7 expended for the survey for their review also.

8 MR. HOOPER: Is the limitation, then, if you  
9 think of the limiting quantity, as far as information is  
10 concerned, is this -- this is not what your geologist would  
11 be doing; it is more the geologist that would be working  
12 for the applicant or USGS; isn't that correct?

13 MR. JACKSON: It doesn't work that way,  
14 unfortunately. If we proceed with as much a hands-on review  
15 as we can -- if, for instance, the applicant trenches a  
16 particular fault or does borings, we want to have, because  
17 of the hearing situation, an on-site visit.

18 There is a week involved in a visit to the  
19 Pacific Northwest and get our staff out here, and back to  
20 the East Coast to observe the trenches or exposures or field  
21 trips that have taken place over the past several years.

22 There is no other way to conduct a review  
23 because the staff and others have to perceive them here.

24 So, we do take cross-checks, and, not only in  
25 the applicant's mapping, but in Dr. Whetton's mapping, we

1 come out to see if we have reasonable confidence in mainly  
2 what he is mapping there also.

3 So, it does not, and cannot proceed solely on  
4 the basis that people go at it and then we will come back  
5 and do this at a later time. It is difficult.

6 MR. HOOPER: So, you are saying that if the  
7 applicant went out and did quite a bit of work, dug some  
8 trenches, and this would all be in vain because you did not  
9 have anybody to send out there to look at it; is that correct?

10 MR. JACKSON: I do not think it would be in  
11 vain, but I think what I am trying to convey is that  
12 would be done, and at least I would recommend it be done  
13 to my management at a pace very different than it has been  
14 for the last several years. It was in a more normal review,  
15 which would be a much slower pace.

16 MR. LINENBERGER: Well, Mr. DeVine, now  
17 understand we are not trying to get into areas here that  
18 we have no business being in at this point.

19 We recognize you gentlemen have your problems,  
20 and they are your problems. We look at the results.

21 But, given the situation that exists with  
22 the information and lack of same in this area, do you see  
23 the USGS in and of itself devoting more, less or about the  
24 same man-year level of effort to this exploration in the  
25 next year or two?

1 MR. DEVINE: As we perceive a level of  
2 investigation such as Dr. Whetton is doing, to continue  
3 for several years, because that is independent of the  
4 Skagit site. Consequently, it does not necessarily mean  
5 it will go in the areas that are most vital to the Skagit  
6 review. For example, it is my understanding we have no  
7 plans to map the quad and the nucleature north of this one,  
8 which includes the plan site and the geology north of the  
9 plant site. We do not have it on our books to map that quad  
10 any time in the near future.

11 Consequently, if that area is to be understood  
12 in relation to this map, it will necessarily fall upon the  
13 applicant to provide it, not us. So our level of work will  
14 probably continue at about the same level of site -- of quad  
15 mapping, but not necessarily in the right areas because we  
16 are mapping these for a variety of reasons, not just  
17 nuclear power plant needs.

18 As far as the offshore work, that would probably  
19 be decreased because that is an intensive look at a very small  
20 postage stamp that has been going on for the last six months.  
21 That will not continue at that level. Our expert is a  
22 retired geologist that we brought back because of his  
23 expertise to do this and that would not continue.

24 There is a general seismic profiling and general  
25 mapping tectonic studies going on throughout the region by

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1 other geologists and seismologists. How their studies impact  
2 here depends on what they find and there is no way that I  
3 can control what they look at.

4 MR. LINENBERGER: Are these industrial, perhaps  
5 commercial --

6 MR. JACKSON: No, I am talking about other  
7 surveys, other geological surveys.

8 MR. LINENBERGER: On, other geological -- not  
9 the oil company exploration --

10 MR. JACKSON: Yes. They are very extensive  
11 also and it is very, very difficult for us to keep track  
12 of what they are doing, although we do attempt to in some  
13 instances.

14 CHAIRMAN DEALE: Well, Mr. Black, are you  
15 finished with your presentation under A-1?

16 MR. BLACK: Yes, that will conclude it.

17 CHAIRMAN DEALE: I have some general questions  
18 or comments from the other parties or representatives of  
19 the other parties. Mr. Thomsen, do you have any observations  
20 or would you want to have any of, say the Bechtel people,  
21 speak for you or speak to Puget?

22 MR. THOMSEN: Well, I think that we obviously  
23 will want to give careful consideration to what we have heard  
24 today and the questions that have been forwarded to us, and  
25 we have heard some new things today that we will be thinking

1 about, and then I expect we will want to discuss these  
2 matters with the staff and the USGS to make sure we understand  
3 each other and maybe we can find the most appropriate and  
4 expeditious ways to get the necessary information, as Mr.  
5 Linenberger was mentioning.

6 So, we are a long way from being able to give  
7 any time estimates. I don't know whether Mr. Black is right  
8 or not. We really cannot second guess his estimates on  
9 schedule, but we certainly cannot represent that it can be  
10 done in any less time than he suggests either.

11 So, I don't think that it would really be  
12 appropriate for us to respond in any detail today. I will  
13 be glad to answer any questions that the Board might have  
14 and maybe we can talk to our people a little bit over the  
15 next recess, but I think we will just have to leave it,  
16 that we are going to get to work on this subject in the  
17 ways I have indicated.

18 CHAIRMAN DEALE: Well, basically, I think we  
19 appreciate these questions that the Geological Survey may  
20 have developed, with the staff's approval, and have left  
21 Puget in a very difficult position, and it has only been  
22 a relatively short time that Puget has had the questions.

23 So, it is understandable that there are many  
24 considerations which Puget must address itself to before,  
25 I think, being able to come up with something definitive;

1 that is, where do you suggest that the proceedings go from  
2 here?

3 We get along with these others and we have some  
4 other comments. The State of Washington, is that here --  
5 that counsel here? We had a --

6 MR. THOMSEN: I don't think they are here. I  
7 talked to them yesterday and they asked me to convey their  
8 apologies that they would not be able to be here. They  
9 are involved in the hearings on another matter at this time,  
10 and I think --

11 CHAIRMAN DEALE: They have a new lawyer representing  
12 them, I believe, Kenneth Ryan, in place of Thomas Carr?

13 MR. THOMSEN: Correct.

14 CHAIRMAN DEALE: Then the State of Oregon, from  
15 time to time it shows up at hearings and conferences, and I  
16 do not see anyone from the State of Oregon here, and that  
17 brings us to Skagit County.

18 Skagit -- Mr. Moser, would you -- you know,  
19 have any questions or express your views on the subject  
20 that you have heard discussed by the representatives from  
21 the Geological Survey and the NRC staff on this new  
22 seismology and geology material?

23 MR. MOSER: Mr. Chairman, Tom Moser, Deputy  
24 Prosecutor for Skagit County.

25 Skagit County is very much interested in these



1 proceedings and has extreme interest in the new findings  
2 by USGS and is delighted with the presentation today.

3 It seems to be refreshing in light of conduct  
4 of past hearings to hear these gentlemen be rather candid,  
5 I think, with this Board. We are happy with that. We are  
6 also interested in some of the other topics coming up such  
7 as emergency planning, which is a real concern to us and  
8 always has been and we are going to continue to participate.

9 I have no direct questions at this point, and  
10 I appreciate the opportunity to participate.

11 CHAIRMAN DEALE: Fine. Thank you, Mr. Moser.  
12 Mr. Leed?

13 MR. LEED: We would hope, Mr. Chairman, that  
14 the parties would be able to obtain copies of the maps  
15 which were displayed today as part of the presentation of  
16 the U. S. Geological Survey, specifically the seismic  
17 profiling location map. I do not think these had any formal  
18 identification on the record, but I am sure that the  
19 gentlemen that presented them know which ones I am referring  
20 to.

21 With respect to Dr. Whetton's map or maps, I  
22 believe last time he appeared at these proceedings there  
23 were arrangements made to furnish the parties with copies  
24 of the maps, and we would make a similar request at this  
25 time. We have -- I won't burden the record with it -- but

1 we do have an interest in pursuing, in more detail, the  
2 seismic interpretations. For example, so that we can  
3 ascertain which of the lines that we have seen and which  
4 that we may not have seen, are involved in the survey's  
5 interpretation, because we have our own experts and we would  
6 want to make sure that they have had an opportunity to  
7 review the same material, and, of course, Mr. DeVine's  
8 presentation did not go into detail there. So, I do have  
9 potential inquiries which I would hope we could address to  
10 the staff and Survey outside the ambit of this conference  
11 so that we can become fully apprised of the details.

12 CHAIRMAN DEALE: Mr. Leed had addressed his  
13 question to the staff and to the survey. You have heard  
14 his questions, and I am wondering whether this is a matter  
15 which the survey, the staff and Mr. Leed might work out.

16 That is on the -- this is general comments and  
17 the thought of the availability of the maps -- do you have  
18 any objection to having any of these, this material, made  
19 available to the parties in the proceedings, is what it  
20 amounts to.

21 MR. DEVINE: Yes, I do. Sir, I have a problem  
22 in that in order to convey information to you today, we  
23 have copies that have not been reviewed and not been  
24 approved by the survey, so they are not available to become  
25 part of the record as they are not official documents.

1 CHAIRMAN DEALE: Okay.

2 MR. DEVINE: On Professor Whetton's cards the  
3 one is already published and the only reason we colored it  
4 is we did that before today's hearings for your benefit.

5 So, it is published and available now. The  
6 other two will be out in a short time. They are in the  
7 process of being printed now and should be out within a  
8 month or so. So the thing to do, it should be available  
9 to all parties in a prescribed, approved manner, in a  
10 relatively short time. The offshore map is a sketch that  
11 was prepared --

12 CHAIRMAN DEALE: That was the one that is  
13 underneath.

14 MR. DEVINE: There are the same problems with  
15 that in that some of those profiles are confidential data  
16 that we have been allowed to review in a confidential manner.  
17 And so, I need to have it clear on what is in keeping with  
18 the intent or competence before I can make that available,  
19 and that is not yet done. As I said, I literally received  
20 that this morning.

21 CHAIRMAN DEALE: Yes, I understand that and this  
22 superceded some material that you had received Friday.

23 MR. DEVINE: The one that I had Friday which is  
24 also not here. However, we will go about it in a very  
25 expeditious manner of preparing such a map to be released and

1 for all parties to use.

2 CHAIRMAN DEALE: Oh, that will be fine. When  
3 would that -- when might that be developed, this might --  
4 I don't mean to --

5 MR. DEVINE: I think in a matter of weeks,  
6 probably within a month, but it does require some looking  
7 at it by the Solicitor's Office and I cannot judge how long  
8 that would take, because of the matter of confidentiality.

9 CHAIRMAN DEALE: This is no reflection on the  
10 speed in which lawyers always handle matters?

11 MR. DEVINE: No, just my inability to control  
12 their schedule.

13 CHAIRMAN DEALE: All right.

14 MR. BLACK: Mr. Chairman, I would just hasten  
15 to add, too, that I do not think in the past we have had  
16 any problems making materials, maps and what have you  
17 available to all parties and I do not expect that we will  
18 have any problems with this. It is just a question now  
19 of, at least with Mr. Whetton's mapping, getting it through  
20 the survey review, and that will take a short period, but  
21 after that it will become a matter of public record and all  
22 people will have access to it. The seismic profile, as  
23 Mr. DeVine has indicated, we should get this matter cleared  
24 up in a matter of weeks. So, there should not be any  
25 problem with any of this.

1 CHAIRMAN DEALE: Well, just to, you know,  
2 kind of button something up here, can you be the point  
3 contact on the matter of getting this material available  
4 for the parties, particularly, Mr. Leed?

5 MR. BLACK: Yes, I would.

6 CHAIRMAN DEALE: Mr. Leed, we have made an  
7 effort in the direction which you, I hope wish to have made.

8 MR. LEED: Yes, that is fine.

9 CHAIRMAN DEALE: Any other, any other questions?

10 MR. LEED: No, sir.

11 CHAIRMAN DEALE: Mr. Stachon?

12 MR. STACHON: Yes, this isn't an issue that  
13 we have taken any active interest in.

14 CHAIRMAN DEALE: Well, we appreciate, you know,  
15 your presence, and we didn't want to forget you.

16 MR. STACHON: Thank you.

17 CHAIRMAN DEALE: Do you have any further  
18 questions?

19 MR. HOOPER: No questions.

20  
21 (continued)  
22  
23  
24  
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NW:mm  
5-1

1 CHAIRMAN DEALE: Do you have any questions?  
2 Gus?

3 MR. LINENBERGER: Well, I think not that involve  
4 these witnesses.

5 CHAIRMAN DEALE: Yes, I think that -- well --  
6 Well, I have a few questions lined up here  
7 and I think that the parties might very well have answered  
8 them but I'll just run through.

9 The first one is the identity of the USGS  
10 questions and NRC's staff question, and that's correctly  
11 identified by NRC's letter of I think January the 8th. And  
12 I'd just like to make sure that this is the -- those do  
13 reflect the geological survey's questions.

14 MR. DEVINE: The only changes that were made  
15 was one, we had meeting date erroneously identified and  
16 somehow in the transmission we misspelled Coal Mountain.  
17 But the content of the questions were not changed in any way.

18 CHAIRMAN DEALE: That's -- like to have  
19 verification that these are the questions. Does Mr. Jackson's  
20 letter of January the 4th<sup>h</sup> correctly relate the Geological  
21 Survey's position? We certainly understand from your  
22 comments that it does, but we'd rather hear it from you.

23 MR. DEVINE: In general it certainly does. I  
24 have not gone back and reviewed it specifically to see if  
25 each and every point is, but I think in general it does.

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1           CHAIRMAN DEALE: The sense of the letter, and  
2 you've made the comment that your, let us say, continued  
3 studies have eroded confidence in the previous reports. I  
4 think that's about the sense of it.

5           Mr. Black has already indicated the -- an  
6 explanation of the proximity of time between the Geological  
7 Survey's report of September the 17th, 1979, and the  
8 October 10th conference with and disclosure to the NRC staff.  
9 I think we might just look to the Geological Survey for  
10 whatever other comment it might wish to say, we can't help  
11 but note the proximity of time. You know, September 17,  
12 1979 there was a report that was signed off on, albeit, with  
13 this caveat, and, then, lo and behold October the 10th  
14 came along and the caveat came crashing down and certainly  
15 a lot happened in those three weeks.

16           MR. DEVINE: We would have preferred not to  
17 have had to put a position in writing on September 17th  
18 while that work was still underway. But to meet time  
19 schedules of NRC we wrote it with the caveat.

20           CHAIRMAN DEALE: Well, we are understanding of  
21 the interest, not anxiety, of this proceeding to hear from  
22 the Geological Survey, I believe the deadline had been, the  
23 nominal deadline of say September the 1st or some such thing  
24 as that. Then we note, and this is the point that I think  
25 you made, you first have a review dated February 23rd 1978,

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1 and then there was this supplement of September 17, 1979,  
2 and then the disclosures at the October 10th conference.  
3 Well, oh, I'm sorry, 18th, 13th, yes. Yes. And I suspect  
4 I know the answer to the question but I'll put it: What's  
5 next? Is there such a situation as being having a  
6 reasonable degree of certainty with respect to geological  
7 and seismological features so that one can reasonably  
8 conclude that, yes, it's all right from a geological and  
9 seismological standpoint to erect a nuclear power plant in  
10 this or that location. Are we ever going to get to the  
11 position that under -- in view of all the uncertainties that  
12 -- are we ever going to get to the position to answer that  
13 question or maybe we're in the position that the question  
14 should not have been asked in the first place.

15 MR. JACKSON: I'd like to respond to that ----

16 CHAIRMAN DEALE: Yes.

17 MR. JACKSON: ---- if I could just briefly.

18 I think that there is a possibility that this site can be  
19 proven to be adequate for this seismic design value. I  
20 think there's a lot of open questions and I think we need  
21 to go back and "we" being a large group, go back and rethink  
22 what it all means in terms of regional seismicity, earthquake  
23 potential. This plant is designed for .35 G-acceleration  
24 level, although we believe there is much too -- there is  
25 too much focus on G-batteries as a sole determining

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1 perimeter for designing power plants I think I make  
2 reference to Mr. Knight's affidavit of several months ago  
3 in terms of design margins available in existing plants.  
4 It's my understanding that a plant of a stronger seismic  
5 design may be adequate, may relieve some of the uncertainty  
6 also and may be one step -- or multiple steps I guess is  
7 what I am trying to say -- in how to approach it. Possibly a  
8 larger plant would envelope the uncertainties. The biggest  
9 problem we have in dealing with any site, as I tried to  
10 state earlier, is the geology, is how you handle your  
11 uncertainty in dealing with how you want to handle the  
12 uncertainties. I think that's a mixed group of things,  
13 not only the geology, seismology of the area, but also the  
14 engineering aspects which are very important aspects to the  
15 site.

16 MR. LINENBERGER: I would like to make an observation  
17 here that expresses my own ignorance but, it seems to me  
18 that there needs to be, forgive me, I'm not trying to tell  
19 you gentlemen how you should do your jobs, but there really  
20 needs to be some pretty sharp penciled cost benefit  
21 considerations looked at on both sides of the Mississippi  
22 here. What I'm getting at is that -- I'll just throw out  
23 for instance: It seems to me that if four years ago  
24 the Applicant had come in and said I'm designing this plant  
25 for .45-G and I recognize your comment about overstressing

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1 G values, but let me go on, we might not be sitting here  
2 having this discussion today. We are sitting here having  
3 this discussion, I don't know whether anybody has tried to  
4 put a price tag on what it takes to competently and  
5 substantively answer the questions that have now been put  
6 to the Applicant, but a price tag is going to have to be  
7 put on it. Money is going to have to be spent to get those  
8 answers and it would seem to me sitting from this vantage  
9 point that people ought to be talking about how that amount  
10 of money might stack up with other kinds of considerations,  
11 other alternatives, possibly going directly to a little  
12 different seismic design or something. So, when I -- we  
13 hear as we heard earlier this morning that you, Mr. Jackson,  
14 are not going to be able to devote many man-years less  
15 than a man-year, per year, to this effort over the next  
16 couple of years because of TMI-2 and unstanderably so, and  
17 we hear from you, Mr. Devine, that USGS obviously has many  
18 interests, Dr. Whetten is doing his own thing, not  
19 predominantly motivated by Skagit, we can't help but wonder  
20 how long and how far we might drift. Now this is not really  
21 directly our business, but in one sense it is. We have the  
22 responsibility for getting it to a decision, and so yes or  
23 no, up or down, whatever. So, we'd like to think that  
24 things are going on that are going to get us to a decision  
25 point in some meaningful time frame. I don't know where.

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1 that leads us but it is just kind of bothering me,  
2 Mr. Chairman, that I would not like to see us in a  
3 period of drifting in the next year or two and maybe having  
4 another meeting like this a year from now.

5 MR. THOMSEN: Mr. Chairman?

6 CHAIRMAN DEALE: Yes, Mr. Thomsen.

7 MR. THOMSEN: Mr. Ferguson has indicated he'd  
8 like to say a few words here. May we do that briefly?

9 CHAIRMAN DEALE: Surely.

10 MR. FERGUSON: Mr. Linenberger, we will be  
11 doing this. In fact, we did this several years ago and,  
12 even though on advice of our consultants the site looked  
13 clearly to be a strong one at .25-G, we elected, just from  
14 an overall posture of putting a conservative envelope  
15 around it, and from a business study as to how long you  
16 want to pursue some technical details, we elected to go  
17 to .35-G's. We have a large body of expertise that has  
18 been employed through the project, and particularly the  
19 last two to three years, probably 15 to 20 field  
20 geologists in this room today, four of them that are  
21 world experts in the geophysics/geotectonic area,  
22 seismic area. We need those men to look at the new  
23 information and advise us on it and we do have a large  
24 host of material that has been developed as you know, in  
25 the last year or two that the Board needs to hear. I think

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1 we need a composite of that expertise, that host of  
2 evidence that will better describe that elephant and work  
3 with NRC and the GS in addressing these new concerns and  
4 then yes to Mr. Linenberger's point that we need to make  
5 a judgment. How long do we need to do that field work?  
6 Our feeling is that a great deal of the information is  
7 available. We need, perhaps, to do some more. Some of it  
8 is in the form of synthesis of the geology, seismic and  
9 engineering characteristics of the problem and we have  
10 specialists in that field available to help the Board. So  
11 I acknowledge Mr. Linenberger's point and we certainly  
12 will make those deliberations once we look at the new  
13 information and decide on the program that we will follow.

14 CHAIRMAN DEALE: Fine. Thank you very much,  
15 Mr. Ferguson.

16 Now I'll just go down my laundry list of  
17 questions here.

18 This is the matter which has been touched upon  
19 before, by Mr. Jackson, I think, and that is the degree  
20 of dependence or independence of the NRC staff upon the  
21 United States Geological Survey. As I understand it, the  
22 staff signed off on say the geological and seismological  
23 report and then three weeks after it had received the --  
24 after it had received from the Geological Survey its  
25 sign off, raised question that the Geological Survey has

3  
1 uncovered such new information that we just can't go along  
2 with what we have done before. Now, for my cause and  
3 effect viewpoint, whatever, the impression is left that  
4 the NRC staff, at least in this case on seismology and  
5 geology is led around, as it were, by what the Geological  
6 Survey has said. Now this might be perfectly all right,  
7 you know, we're not arguing about that, but I go to the  
8 point of questioning say the independence of the NRC staff.  
9 I can't help it, I mean the events here, raise the question  
10 itself and I am sure that you're not surprised with the  
11 question. Mr. Black had made a comment or two about it  
12 and I'm wondering whether you would want to make any other  
13 comments.

14 MR. JACKSON: Before we recommended a -- we met  
15 with the Survey in a rather heated discussions, to say the  
16 least, on the 13th of October. Our meetings with the  
17 Survey are usually done professionally but not always  
18 without a good bit of ----

19 CHAIRMAN DEALE: Give and take.

20 MR. JACKSON: ---- going back and forth and we  
21 don't buy what the Survey says without good reason.

22 On the other hand, however, we have a  
23 reasonably small staff for the type of work we have to do  
24 throughout the country, for every site, and don't profess  
25 to be individual experts in a given site region. Expert to

1 the extent that the individual who is working the given  
2 region of thirty, you know, in totals of groups of people  
3 for thirty years, we go to many sites where we have to weigh  
4 the information that is given to us not only by the  
5 Geological Survey but we have a very active involvement of  
6 all the State Geological Surveys. We actively seek and solicit  
7 the views of university Geologists in the given area. Some  
8 of this has evolved over the past four or five years and was  
9 not necessarily in place at the time the Skagit review began.  
10 I think what we do is we weigh the information that is being  
11 given to us by any party and if it is valid, we pass it on  
12 to the Applicant and we try to package it into one judgment.  
13 Your review of the Safety Evaluation Report which was prepared  
14 primarily by Mr. LaFever, you will find that it differs  
15 greatly on some specific fault in its age and capability  
16 status of capability from the USGS one, of its independent  
17 findings. I think we weigh the Survey's judgment very heavily  
18 especially in a complicated site. I was thinking about this  
19 yesterday a little bit, in terms of hindsight of plants in  
20 which the Survey has strongly opposed staff views. I think  
21 back to when the Applicant, I believe, proposed a .25-G  
22 acceleration, and based primarily on the Survey's strong  
23 stance in opposition to the staff, the Licensing Board  
24 agreed with a .67-G

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10 1 acceleration. In hindsight and today's knowledge of what  
2 we have from new earthquakes and new large earthquakes, it  
3 appears that that design acceleration is much better a  
4 determination than the .25 would have been. And that was  
5 a hard decision. This has happened at other places.  
6 Bodega Bay was a site in which if that site were an  
7 operating facility today it would be a very difficult plant  
8 for us to operate, being right on the San Andreas. That  
9 was a proposed site. The same thing with the Mendocino one,  
10 I can't remember the official name Corral Canyon in  
11 Mendocino in which the staff agreed to allow the Applicant  
12 to proceed, even though it is in a very faulted area. The  
13 judgment of the Geological Survey, in opposition to the  
14 staff at that time was prevailed de facto, I guess the  
15 utility decided not to build there. But looking back I  
16 guess my overview is that we don't take what we're given  
17 without a great deal of challenge to it and neither I  
18 or Dr. Step or any of the others feel that we're  
19 patsies of the Survey, so to speak. But we do value their  
20 judgment very heavily and they are independent and they  
21 do go out on independent work and we take that  
22 information and weigh it very heavily in our decisions; I  
23 do and my management does very heavily.

24 CHAIRMAN DEALE: Thank you, Mr. Jackson. I think  
25 it is fair to add this: that maybe this whole procedure of.

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1 having seismology and geology characteristics examined  
2 closely by two sets of experts might be better than having  
3 them just examined by one set of experts and that we  
4 shouldn't become too upset - have reasonable assurance  
5 that the experts are not acting in collusion, that from  
6 time to time they're going to agree and also, from to time  
7 they're going to disagree and this would be true particularly  
8 in an area as complicated as you gentlemen have indicated  
9 that it was. That there is clearly room for people of  
10 reasonable minds and good training to disagree so you get  
11 two sets and one person says yes and one person says no.  
12 This should not be an upsetting sort of a phenonema. No.

13 MR. BLACK: Mr. Chairman, I would also add  
14 to the point that was alluded to earlier by Mr. Jackson, is  
15 that in difficult reviews such as what Skagit has been, NRC  
16 does have money to employ outside consultants and we have  
17 done so with regard to the Skagit when we hired the  
18 Phoenix Corporation to review the aeromagnetic work that  
19 was recently submitted by the Applicant in the spring of  
20 last year. We've also retained Dr. Kelleher who was with  
21 the NRC staff originally and he has a certain expertise  
22 in the area of seismology, we have retained him also and  
23 in certain other cases we have retained Mr. Newmark and so  
24 on down the line. So, there's a third body of expertise  
25 that is added to our review and you will find instances

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1 probably that those three bodies will disagree on specific  
2 interpretations and that's just the nature of this science.  
3 It's sometimes -- many times it may even resort to the  
4 flipping of a coin in certain cases. At least as a layman  
5 sometimes it looks like it's a lawyers decision, too, the  
6 flipping of a coin.

7 MR. HOOPER: I'd like to pick up on something just  
8 said by Mr. Jackson, about the Santa Nofrev (phonetic).  
9 Here you say that the USGS said something about a .25 and  
10 I believe you recommended a .6 or something like this in  
11 terms of acceleration value. Was the issue here that the  
12 lack of data, lack of information that caused you to -- was  
13 this a measure towards conservancy that caused the ----

14 MR. JACKSON: I wasn't here in those days.

15 MR. HOOPER: Was this the reason that you  
16 went higher, was it saying well we don't have the data,  
17 therefore we must be more conservative, therefore we will  
18 assign a higher G value. Is that the -- in that case is  
19 that similar to the thing we are dealing with here? I  
20 see Mr. Devine wants to respond for you.

21 MR. DEVINE: I would like to comment if I may.

22 MR. JACKSON: Let me comment on my perception  
23 first. The -- I think it was two things: One, I think  
24 the geology in California, in southern coastal California,  
25 was better understood. It was visable, the offshore data

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1 tracted in very heavily so it was not exactly an equivalent  
2 case as you might have here where occasionally we say we  
3 plump the G value a certain amount and will allow and use  
4 that for uncertainty. I'm not certain in this case here  
5 that that exactly would prevail because of the site and  
6 locality faulting might present a problem. But the word  
7 of Mr. Devine who was in those proceedings .

8 MR. DEVINE: There is a time disconnect I think  
9 is important here. Point 25 was the original design for  
10 unit one. .67 is the ultimate design by unit two. There  
11 was a considerable amount of time between the two in that  
12 both the technology to obtain offshore data and the obtained  
13 offshore data evolved rapidly and so there's a different  
14 framework when this .67 was recommended from the original  
15 .25. There were disagreements, however, but not quite as  
16 severe as those that were feared.

17 CHAIRMAN DEALE: I think it might be a good time  
18 to call for lunch. Let's reconvene at 1:30.

19 MR. BLACK: Are these four gentlemen through?

20 CHAIRMAN DEALE: I thought that we had them  
21 until the rest -- today and that they had to leave  
22 tomorrow.

23 MR. BLACK: Yes. That's true. I just wondered.

24 CHAIRMAN DEALE: Yes. I understand what you  
25 are saying. If they can stay, I think it would be helpful

1865-090

1 but I can't swear that it will be. We have heard their  
2 presentation and we have had the opportunity to ask them  
3 questions. So, if they have an urgent reason to leave, I  
4 leave it up to you, Mr. Black, and if you're wrong, we  
5 will jump on you.

6 (Whereupon, the Board had a recess)

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1 (Afternoon Session)

2  
3 CHAIRMAN DEALE: Please come to order.

4 We will reconvene our conference after the  
5 luncheon break and we are just winding up a question or  
6 two which have come to the Chairman's mind and that was  
7 Mr. Ferguson's letter to the Commission indicating that the  
8 applicant was not supposed to make any major commitments  
9 in connection with the development of the nuclear plant  
10 although it desired to carry on with the proceeding.

11 I think we understand what it says but if the  
12 applicant would like to throw any light on that we will  
13 be welcome to it.

14 I might say, might add to this one another  
15 general question for the applicant and that was the position  
16 that the applicant has with respect to Skagit County. That  
17 is a legal position I understand, just an identification or  
18 a description of it at this time I think would be helpful.  
19 Mr. Thomsen?

20 MR. THOMSEN: Yes, Mr. Chairman.

21 I would like to take the second one first, if  
22 I might. Mr. Ferguson might want to be here for the next  
23 one for his letter to Mr. Denton, but I think he is on the  
24 telephone temporarily here.

25 As for the Skagit County matter, as I explained

1 at the conference last April and as the Board was quite  
2 aware we did face a year-end deadline under our re-zone  
3 agreement with Skagit County, and you will recall the  
4 provision of that agreement was if construction of the  
5 first generating unit did not commence by the end of 1979  
6 or such later date as the Board of County Commissioner's  
7 might approve, then the re-zone agreement would terminate  
8 and the zoning would revert to the pre-existing classifications.

9 So, as the fault came and it became most  
10 likely that we would not be able to commence construction  
11 by the end of the year because we could not obtain the  
12 LWA by that time. In early October, October 1st, Puget  
13 did then request the County Commissioner's to approve an  
14 extended date and the County Commissioner's that same day,  
15 as a matter of fact, related to this decided to put an  
16 advisory proposition on the November 6th ballot in Skagit  
17 County also.

18 CHAIRMAN DEALE: On November 6th ballot?

19 MR. THOMSEN: Yes, now they made it clear  
20 that it was an advisory proposition and as distinguished  
21 from one that would govern their decision on whether or not  
22 to extend, and so in due course, we had the election of  
23 course, and the results were that about 70 or 71 percent  
24 of the vote was no on this proposition, and the proposition  
25 was, do you favor the construction and operation of the two

1 nuclear power generating plants on Backus Hill in Skagit  
2 County as proposed by Puget Sound Power & Light Company, yes  
3 or no? The vote was about 71 percent no.

4 CHAIRMAN DEALE: Was there a good turnout?

5 MR. THOMSEN: I think there was an exceptionally  
6 good turnout, but Mr. Moser might --

7 MR. MOSER: It was a record turnout.

8 MR. THOMSEN: Record turnout.

9 Then, about that same time --

10 CHAIRMAN DEALE: Excuse me, one other thing,  
11 how many people are we talking about here?

12 MR. THOMSEN: Voters?

13 CHAIRMAN DEALE: Of the voters. The ones that  
14 voted on this issue?

15 MR. THOMSEN: Thirty thousand.

16 CHAIRMAN DEALE: Yes, that is all right.

17 MR. THOMSEN: That sounds about right. Then,  
18 sort of parallel with the election part of it, pursuant to  
19 our request for an extension, it was set down for a public  
20 hearing before the Planning Commission. It was treated by  
21 the County as a reasonable request and so it was processed  
22 pursuant to zoning procedures. We didn't agree that that  
23 was the proper procedure but that is the way it was processed.

24 So, in accordance with that procedure, there  
25 were hearings held before the Skagit County Planning Commission

1865 094

1 starting October 29, and concluding November 8th. There were  
2 eight evening sessions before the Planning Commission on the  
3 question of whether or not this reasonable agreement should  
4 be extended, and of course, the public spoke and also the  
5 intervenor, SCANP, represented by Mr. Leed appeared in  
6 opposition to the extension, and so on. Then on November 19th  
7 the Planning Commission voted to recommend to the County  
8 Commissioners that they deny the request for the extension.

9 The Planning Commission's role in a zoning matter  
10 is to submit a recommendation to the County Commissioners  
11 who then later make the final decision.

12 So, in due course, on November 27, 1979 the  
13 County Commissioners voted three to nothing to deny the  
14 request for the extension and then on December 14, 1979,  
15 Puget commenced a declaratory judgment action against the  
16 State of Washington and Skagit County to seeking a declaration  
17 from the Courts as to whether or not Puget is authorized by  
18 virtue of the State site certification agreement and State  
19 law to go forward with the project at the Skagit site.

20 That is where the matter rests now. That legal  
21 action is pending before the County Court in Thurston County  
22 and it is a long way from reaching the point where there  
23 will be a decision made in that legal action. So that is  
24 where the matter of county zoning rests today.

25 Mr. Moser is here, maybe he would like to add

1865 095

1 something to that.

2 MR. MOSER: I wasn't aware that we were going  
3 to discuss this today, but I would add a few things for  
4 benefit of the Board.

5 There was also a law suit filed by Puget in Skagit  
6 County on October 10th challenging the right of the County  
7 to hold the election and the Superior Court Judge there  
8 denied the relief they requested which was injunctive, allowed  
9 the vote to go forward and we did have the vote and it was  
10 a record turnout and a overwhelming majority against the  
11 nuclear plant. We are now in Thurston County in litigation.

12 In Thurston County which is because they also  
13 sued the State of Washington and under Washington law if you  
14 sue the State you have to sue the State Capitol which is  
15 Olympia County. We are now in the process of litigating that  
16 with Puget Power. I should mention that the applicant did  
17 participate in the hearings in front of our Planning Commission  
18 and Board of County Commissioners and some of the issues now  
19 revolve around whether or not construction is commenced there  
20 intending that they have indeed commenced construction and  
21 that they are entitled to an extension of the re-zoning.

22 CHAIRMAN DEALE: Thank you.

23 MR. THOMSEN: Getting back to the first subject  
24 in the matter of Mr. Ferguson's letter, I don't have my  
25 copy in front of me. I think it was November 19th or



1 thereabouts, 1979 to Mr. Denton.

2 Mr. Ferguson has returned and, as I understood  
3 it you just afforded us an opportunity if we wished to  
4 elaborate on the fact, as we said in that letter that Puget  
5 had decided to defer major expenditures on the Skagit Project,  
6 but nevertheless had also decided to continue to pursue the  
7 licensing of this project.

8 CHAIRMAN DEALE: Yes.

9 MR. THOMSEN: What would you like to know about  
10 it, that is where we are today, still.

11 CHAIRMAN DEALE: Are you still interested in  
12 the LWA?

13 MR. THOMSEN: I would say, no, we are not.  
14 That really gets back to the root cause to our decision to  
15 defer major expenditure which is, was and still is the sort  
16 of unpredictability and instability of the federal licensing  
17 scene for the time being.

18 As the Board is well aware, there have been a  
19 number of studies flowing from the Three Mile Island incident,  
20 the Kemeny Commission, another one is due any moment the  
21 Rogovin Committee Report, GAO, ACRS, whatever, Congress, so  
22 on. Obviously, it seems to us anyway, there is likely to  
23 be some significant changes in structure of the commission  
24 and some of the rules and regulations and requirements and  
25 so on. So that Puget's view is that they would like to get

1 the construction permit in hand before proceeding with the  
2 construction at the site. So that they know that they have  
3 gotten all the way there. Whereas, a limited work authoriza-  
4 tion, of course, as the Board is well aware does not in any  
5 way indicate that you are going to get a construction permit.

6 So, in our judgment we are just making a judgment  
7 it is going to take a year or two, or we don't know how long  
8 before the aftermath of Three Mile Island is dealt with by  
9 Congress and by the Commission in their rule-making proceedings  
10 and things have settled down and they indeed have the manpower  
11 to go back to processing construction permits and so on.

12 So, we don't think that a limited work authorization  
13 probably is going to do us any good, any more. We don't --  
14 we haven't formally withdrawn that request, you know, maybe  
15 a year from now or something it will appear to be useful, but  
16 at the moment it doesn't look like we would want to avail  
17 ourselves of a limited work authorization if indeed that  
18 concept continues to exist under the regulations.

19 CHAIRMAN DEALE: Is this letter directed then  
20 that is, the November 19th letter really directed to the  
21 expenditure of funds under a limited work authorization or  
22 would it also include the expenditure of funds under a  
23 CP?

24 MR. THOMSEN: Well, both me and Mr. Ferguson  
25 can elaborate but it includes procurement, for example, not

1 merely on-site work but procurement of the --

2 CHAIRMAN DEALE: Well, funds to build a site,  
3 I mean to build a plant.

4 MR. FERGUSEN: The experience in the industry,  
5 c. Chairman is that you build a better quality job, you build  
6 a job, you build a plant at a lower cost if you have as much  
7 front-end engineering in it, as much planning, as much quality  
8 assurance engineering as possible and we have done that, as  
9 you know.

10 We have almost 65, 70 percent of the facility  
11 designed in an extraordinary amount of fun and work done  
12 long lead items procured and we just felt because of the  
13 defect of moratorium and the stretch out of the rule making  
14 and our pledge to Skagit County to pursue those completely  
15 and address their concerns if that terminal would stretch  
16 out and it would not pay us to continue mobilizing which we  
17 have, keeping contractors in readiness.

18 So, we made the commitment to the county that  
19 we would not plan on initiating construction under a two to  
20 a three-year period in recognition of the regulatory instabil-  
21 ity. You just can't get the manpower, the ground rules are  
22 not clear and also, our commitment to the county to address  
23 their concerns and we felt that this would need to be done  
24 and the process such as this geology, emergency planning,  
25 and this is about our estimate of what that might take.

1           So, it is a decision on a commitment to a county  
2 and a financial consideration because we have invested a  
3 large amount in the facility and we feel we need the ground  
4 rules to settle out before we continue with that mobilization  
5 and that expenditure of funds.

6           MR. LINENBERGER: We can appreciate your problem  
7 and your position here, Mr. Ferguson, but tell the Board  
8 under this set of rather complicated circumstances, what do  
9 you view to be the posture of your construction permit  
10 application in this interim period? Is it your desire that  
11 that application continued to be processed in some way or  
12 that it be held in abeyance pending decisions and resolutions  
13 or how do you see --

14           MR. FERGUSEN: It is, Mr. Linenberger, the former.  
15 It is an active pursual of the full construction permit, not  
16 an LWA, but a full construction permit and we are committing  
17 our full resources of engineering, quality assurance planning  
18 that whole sector but indicating to Skagit County that we  
19 don't plan to mobilize or initiate construction under that  
20 two-year period.

21           MR. LINENBERGER: Well, okay I need, excuse me.

22           MR. FERGUSEN: So, it is a full goal on the  
23 licensing path and all the technical and support services that  
24 we have had on the project, it is only a pull off of the  
25 construction mobilization. We have had contractors mobilized,

1865 100

1 equipment, ready to go, and we are backing off on those  
2 contracts.

3 We had actually let four major construction  
4 contracts and had contractors mobilized to initiate work.

5 MR. THOMSEN: We now terminated those contracts.

6 MR. LINENBERGER: Well, we still need a little  
7 more clarification.

8 If it is your position that you would like to  
9 see the licensing effort move ahead should the Board infer  
10 that it is Puget Power's intent to move ahead expeditiously  
11 on some of the other matters that have not come up for  
12 discussion yet today. Such as questions involving policy  
13 changes with respect to emergency planning, questions  
14 involving the popular phrase, Three Mile Island lessons  
15 learned, can you --

16 MR. FERGUSEN: Yes, I can expand on that very  
17 easily because we are completely committed to follow those  
18 aggressively. We have Puget men on those task forces, we  
19 are actively working the lessons learned on Three Mile Island  
20 and on emergency planning, and as soon as those rule makings  
21 are settled, in fact we have already responded on the lessons  
22 learned on Three Mile Island, and as soon as the rule makings  
23 are established on emergency planning, we will expect to  
24 respond and pursue those with the Board.

25 MR. HOOPER: Mr. Ferguson, I judged from what you

1 have just said that then during this two-year period of  
2 uncertainty you would have no problem with continuing your  
3 work on geology as related to the things we have heard this  
4 morning, and I am trying to clear up some of these geological  
5 matters. Do you intend to do this also during this two-year  
6 period?

7 MR. FERGUSEN: I have no problem addressing  
8 these questions.

9 MR. THOMSEN: So, you know, to get specific  
10 it is, we intend to respond to those questions as soon as  
11 we reasonably can, for example --

12 CHAIRMAN DEALE: Well, this is in keeping with  
13 what you said, Mr. Ferguson in your letter. You say, we  
14 will maintain whatever engineering consulting and other  
15 capabilities may be necessary to expeditiously complete the  
16 pending licensing proceeding.

17 What you are saying is in this interim period  
18 you are not going forward with construction efforts in line  
19 with the construction plan that you once had of getting as  
20 much construction as you can behind you before you had the  
21 permit. So you will be pressing for the construction permit  
22 and well I guess to a lesser extent, and I use that word  
23 advisely, you will continue to press for an LWA but I --

24 MR. FERGUSEN: I guess I put it that we have not  
25 tossed in this towel on the LWA, but it looks to us that we

1 would hold out for a construction permit. We want to be  
2 assured that we have that before we commit major expenditures.

3 CHAIRMAN DEALE: All right. Well, the letter is  
4 clear enough and it is nice, you know, to have the elaboration  
5 of the letter.

6 Now, we get to the position of what are we going  
7 to do with this geological and siesmological issue and we  
8 throw out these ideas for your consideration.

9 On a long-term basis, the NRC, the Nuclear Regulatory  
10 Commission has assigned this Board Puget's Application for  
11 a Construction Permit, for hearing and decision.

12 .At this point, the staff as a result of information  
13 from the United States Geological Survey has asked Puget to  
14 perform substantial more work in geology and seismology which,  
15 appears to involve a great deal of time.

16 Although I might note the suggestion which Mr.  
17 Ferguson has made this morning, indicates that perhaps much  
18 of that work has already been done.

19 Nevertheless, the work is there.

20 Now, the applicant is faced with the question, it  
21 seems to me, of complying or not complying with the request  
22 for further information on geology and seismology matters.

23 For example, the applicant might very well take  
24 the position between what we have done and what we have given  
25 you, we can match anything that you have shown us to date.

1865 103

1 I don't know whether that is even a reasonable  
2 possibility, but at least that is a position which is open  
3 at least to Puget.

4 So, we are going forward and if we are going to  
5 have the staff against us, so be it. We can take them on.

6 On the other hand, it might be in view of all  
7 the information which Puget has developed on geology and  
8 seismology, it might be in the position of say, whittling  
9 down the requests or a requirement by the NRC staff and then  
10 go forward with its application.

11 There are many alternatives and far be it from  
12 us to try to speculate just what Puget might choose to do.

13 Remembering, of course, that there is another legal  
14 proceeding hanging over this proceeding and that is the one  
15 involving Skagit County.

16 I think that, and again this is a long-range  
17 viewpoint, but I think that from the Board's standpoint,  
18 we are constrained to say that if Puget does not let us say  
19 pursue this application, and as I understand it now, there  
20 is no doubt about it that they would, but if Puget would  
21 decide not to go forward on the basis of all the questions  
22 which the staff had given to Puget for answering, there  
23 would come a time which the Board in the absence of hearings  
24 would seem to me to be constrained to consider the option,  
25 consider the option of dismissing the application for lack of



1 prosecution.

2 Now, there is another point of view too.

3 From the Board's position geology and seismology  
4 dominates the remainder of the proceeding, and not disposed  
5 to move, and we are not disposed to move with other matters  
6 until Puget has had a fair chance to reply to the NRC staff.

7 Now, underlying that premise, I must -- we tend to  
8 think that all other matters that are on the agenda by and  
9 large should be shelved or put aside until we can come to  
10 grips with the dominant issue of geology and seismology.

11 Now, what I mean by, until we can come to grips,  
12 I suggest that this does not mean that we will be able to  
13 say schedule a hearing next week or next month.

14 But I think there should be a course of action  
15 which would ultimately lead to the resolution of the issues  
16 of geology and seismology that could very well be a point  
17 very much before any actual hearings on geology and seismology.

18 Well, so be it, but in the meantime, until we get  
19 to the point where we are able to say three months from now  
20 we will do this, this and this with respect to geology and  
21 seismology, we are raising the question of whether we should  
22 become involved with really, of important surely, but the  
23 peripheral matters. There is going to be nothing if we  
24 don't meet the issues of geology and seismology and whether  
25 it is evacuation planning, Three Mile Island lessons, radon,

1865 105

1 you name it. That becomes quite secondary.

2 Now, once we -- let us say, plot a course of  
3 action, with respect to the meeting of the geological and  
4 seismological issues then I think we are ready to go forward  
5 with all of this other material.

6 Actually, I would like to think it is going to  
7 in terms of a total proceeding, fall in place a lot easier.

8 I think that it would be quite difficult for  
9 everybody to develop a case on the Three Mile Island lessons,  
10 emergency planning, flood plane management, radon, or what  
11 have you and this major issue is an undecided, a totally  
12 undecided status. So be it.

13 Now, what we are thinking about is something along  
14 these lines that Puget has had I think two weeks at the most  
15 to ponder over this full issue of geology and seismology  
16 and reflecting the letters which the staff has written to  
17 Puget, and as I have indicated before, we don't expect Puget  
18 to say, I have the answer to 1, 2, 3, 4, 5, 6, and I will  
19 get the answer to 7, 8 and 9 and in a couple of months more  
20 we will be ready to go.

21 This is not a premise, you know, on which this  
22 conference was called.

23 The idea we had in mind is really what I have said  
24 before. We have the responsibility. We want to get a hold  
25 of the proceedings and to carry it out to the conclusion in

1865 106

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1 an orderly process.

2 So, the thought here is well, let us have, what  
3 do you want to call it? I hate to use that word moratorium  
4 but say a suspension. So far as this kind of activity is  
5 concerned. Suppose we schedule a regular reports, you name  
6 it, whether it is every month, or whatever it is. I think  
7 that this is in terms of the staff and Puget and then after  
8 the reports indicate that you are ready to go. On these  
9 questions of geology and seismology, why I am sure then we  
10 can go forward with the processing of the application and  
11 the scheduling of hearings, discovery matters and whatever  
12 else is associated with having a final and complete hearing.

13 In the meantime, we are suggesting that we are  
14 not going to, let us say rev our engines on these other  
15 matters.

16 This is again, it tends to be kind of a speculation,  
17 but if we do it that way I don't think we are going to lose  
18 time because we are not immediately focusing on flood plane  
19 management, radon and the rest because I think that the  
20 impetus of getting going on the hardest part of the proceeding  
21 and moving forward on that these other materials will tend  
22 to follow.

23 Now, you have our thoughts, and this is again a  
24 conference. We are not trying to say well this is the way  
25 it is going to be, this is a give and take proposition here

1           You folks have been generous and forthright in  
2 explaining your viewpoints and thoughts. This is our own  
3 view and we would like to have the ideas developed and maybe  
4 we will ultimately come out with a sensible, orderly course  
5 of action which will ultimately resolve these matters and  
6 that we won't simply drift.

7           Yes, Mr. Thomsen?

8           MR. THOMSEN: The applicants take this as a good  
9 approach. To me, it sounds like we agree with what you  
10 have suggested. We certainly agree that in terms of Board  
11 involvement there is little point in trying to have a hearing  
12 on radon or TMI or emergency planning before we can see some  
13 light at the end of the tunnel on geology/seismology.

14           That clearly is the dominant pacing issue it seems  
15 to us also. So, I think your suggestion is a good one.  
16 That is not to say without involving the Board we, of course  
17 will be working on emergency planning, TMI and compiling all  
18 of this --

19           CHAIRMAN DEALE: Oh, sure, believe me.

20           MR. THOMSEN: Getting the pieces in place.

21           CHAIRMAN DEALE: No, no --

22           MR. THOMSEN: But I agree that that is a good  
23 approach and I think the idea of some kind of status reports  
24 periodically to let the Board know how we are doing, it  
25 sounds like a reasonable idea too. Whether they need be

1 scheduled rigorously or -- I don't know. I haven't thought  
2 about that detail but that seems like a logical thing to do  
3 also to keep the Board informed that we had this meeting.  
4 or about to have that meeting, or we are doing this, or we  
5 are doing that, we are making progress, or not making progress.

6 CHAIRMAN DEALE: We don't want a diary, you  
7 understand we want --

8 MR. THOMSEN: No, significant things, significant  
9 progress or significant lack of progress would be reported,  
10 something like that.

11 CHAIRMAN DEALE: Mr. Black?

12 MR. BLACK: Certainly what the Board is thinking  
13 now is the various options that are available to this  
14 proceeding is certainly attune with what the staff is thinking  
15 too. It certainly makes no sense to us to pursue these other  
16 peripheral issues, when the pacing items seems to be  
17 geology and seismology.

18 We do have or perhaps we are faced with a considerable  
19 delay here, to put in focus and resolve these geology and  
20 seismology issues.

21 In which case, these other peripheral issues may  
22 fall by the way side. I am thinking specifically of radon.  
23 During the lapse of a year we may have a rule by the Commission  
24 in which it may completely void the need to resolve the radon  
25 question in this proceeding.

1 CHAIRMAN DEALE: We didn't wait long enough.

2 MR. BLACK: The way that things are going now  
3 and maybe a year is not long enough but obviously TMI issues  
4 will come to focus too and we will have to determine what is  
5 the best course of action to resolve those items are.

6 Emergency planning. We are now going through  
7 a rule making. We hope to have a final rule by May, June of  
8 this year in which case the applicant will have a completely  
9 new set of regulations and criteria to be guided by.

10 So, there is no sense in going into the emergency  
11 preparedness issue at this time.

12 I think it is important too to have some schedule  
13 though or at least have some course of action which we could  
14 look at and in this regard, I kind of think that your  
15 suggestion is good that the applicant take some time now to  
16 digest the request for information and come back to all of  
17 us within a reasonable period of time as to which course or  
18 what course of action that it chooses to take.

19 I don't think that two weeks is long enough to  
20 let the applicant do that. I think that it is going to  
21 take a good effort on their part to digest it thoroughly  
22 and come up with a good course of action that we could  
23 follow.

24 This perhaps should give us some indication of  
25 what additional work it plans to do, what additional work it

1 does not plan to do. What items of things it can easily  
2 resolve, which items it thinks that may take some time  
3 to do so. Well, I think this can be done within a period  
4 of several months, one or two months. Maybe what the  
5 applicant needs to get this clearly in focus.

6 At that time we can perhaps come up with a more  
7 definitive schedule or course of action on how these  
8 proceedings should go. At that time, once we come up with  
9 an applicant list of things that it wishes to do to resolve  
10 this matter, at that time we can go into monthly or maybe  
11 every two-month status report from both the staff and the  
12 applicant as to whether this course of action could be  
13 pursued, diligently prosecuted or what have you.

14 As far as Mr. Thomsen says, a lack of --  
15 lack of insignificant events with regard to the course of  
16 action chosen.

17 But, I think it is a very pragmatic way to go now.  
18 I think that in conjunction with the legal problems involved  
19 with Skagit County gave us some time to think about a good  
20 reasonable course of action, and I think it should be done  
21 and get us all in focus on a resolution of this application.

22 CHAIRMAN DEALE: So, Mr. Black, you have mentioned  
23 the legal problems which Puget faces. My colleague here  
24 pointed out that there is another question which I am sure  
25 you are aware of and maybe Mr. Thomsen may have a comment or

1 two about that and that is Governor Ray's recent pronounciation  
2 about nuclear plants coming into the State of Washington will  
3 be located at Hanford.

4 We can't get away, this is another factor in this  
5 matter. Go forward, Mr. Thomsen. We are aware of the  
6 problems but I think it is best that we all be aware of what  
7 we ar talking about now, and as he has indicated, this is  
8 a public hearing and far be it. It is far better to get  
9 everything out in the open than be surprised later.

10 Yes, Mr. Thomsen?

11 MR. THOMSEN: Last Tuesday evening, Governor  
12 Ray addressed the legislature and gave her State Address and  
13 in the course of that did have occasion to say something about  
14 the siting of new nuclear power plants, namely, I guess this  
15 is the text of her written message, is that what that is?

16 This is the Governor speaking, I think to the  
17 State, House and Senate. Let us agree that any additional  
18 siting or expansion of nuclear generated electrical plants  
19 be restricted to the Hanford reservation, and that was of  
20 course reported in the press, and I think it was even in the  
21 Wall Street Journal and later, she said it that evening,  
22 it was not clear whether she was meaning to include Skagit,  
23 or exclude Skagit as a new nuclear generating facility,  
24 reminded that we do have certification from the State.  
25 But, the following day, further inquiries were made by the



1 Press and I am just judging, using newspaper accounts here,  
2 but at any rate according to the newspaper, her office or  
3 press secretary did say that she meant to include Skagit  
4 as one of these new facilities that should be located in  
5 Hanford. I think since that she has confirmed that yes,  
6 that is what she meant. That is all we really know about  
7 it. We haven't any further details and as far as I know  
8 there has been no legislation proposed to do this.

9 She spoke in terms of that she would support  
10 legislation that would bring this about.

11 CHAIRMAN DEALE: Yes, this is a legislative  
12 proposal. She can't do this by filing up there or anything  
13 like that.

14 MR. THOMSEN: Not that I am aware of and I am  
15 saying that as far as I know I haven't seen any draft  
16 legislation to implement this thought so we are not clear  
17 on you know, how this might be implemented or what the  
18 alternatives would be or anything but this is what she said  
19 and that is all we really know about it and so this was a  
20 week ago today. So we have that additional whatever it  
21 is, uncertainty in our basket of uncertainties here.

22 CHAIRMAN DEALE: Well, are there any other  
23 comments which the parties might wish to make about the  
24 general outline of approach for managing the proceedings in  
25 connection with geology and seismology? Yes, Mr. Moser?

1865 113

1 MR. MOSER: Thank you, Mr. Chairman.

2 On behalf of Skagit County, I would be opposed to  
3 to a suspension, I would rather see and suggest that the  
4 appropriate action for the Board is the dismissal of the  
5 application rather than a suspension of the hearings.

6 I would like to point out several reasons why  
7 that is appropriate.

8 A suspension I suggest would be a burden on  
9 County Government to uphold this in abeyance for a two-year  
10 period. The County is here at no small cost and the interim  
11 period is going to require the County to make some determination  
12 whether to continue to be geared up, to lay-off personnel,  
13 to hire experts on her own, to not hire, to lay-off people  
14 we have on the planning staff. It leaves some period of  
15 uncertainty for County Government we didn't anticipate and  
16 I don't believe was warranted.

17 There is no lesser burden on the citizens of  
18 Skagit County who have incurred extreme costs in retaining  
19 counsel, extreme costs in retaining experts and it appears  
20 to me that there is going to be uncertainty in the community  
21 because of the suspension, a mental uncertainty, and a  
22 financial/economic uncertainty.

23 This is an issue with the County that is no small  
24 issue, it is a major issue, and having the permit in suspension  
25 does not result one way or the other. It delays the decision

1865 114

1 at the State, County and Federal level and it probably will  
2 do something to disrupt the economics of the community in  
3 terms of businesses and people with financial interests  
4 which would put them in to a State of flux.

5 Of course, I am very concerned about the mental  
6 and emotional stress of having this factor of a nuclear  
7 plant being built in Skagit County maybe we won't even know  
8 if we are going to continue hearings for another two years.

9 It appears to us that this is not the usual course  
10 of a litigation. I don't know if this is the usual course for  
11 dockets but it certainly isn't for litigation that we are  
12 aware of. Either the applicant is ready or the petitioner  
13 or plaintiff in a case to pursue their remedy and prosecute  
14 the case or they are not in which case they get a dismissal,  
15 with or without prejudice is something the parties can argue.

16 But they get a dismissal. That is the result of  
17 their inability to continue litigating the case.

18 It appears to us that obviously this is at best  
19 a marginal site. The staff has even backed off its prior  
20 recommendations, prior findings and from a geological point  
21 of view, they can no longer serve by the site and are now  
22 in this period of where they are dealing with something that  
23 is uncertain.

24 When the applicant came in, the evidence that they  
25 presented to the staff, presented to this Board was, all

1 systems are go we have a great site here, let's get on with  
2 the process, obviously that is not where we were at that  
3 point, we are not there now. We are in a state of flux.

4 It appears to us that the petition should be  
5 dismissed because we have an uncertain site. It is not now  
6 suited for a nuclear plant, because of geology alone barring  
7 all the other arguments which may be presented later based  
8 upon the record, but this site is not suitable. Otherwise,  
9 it would not need a suspension, and we would urge there  
10 would be a dismissal and the applicant then can select its  
11 remedy whether it wants to continue in the future with another  
12 application or whatever it might do.

13 MR. BLACK: Mr. Chairman?

14 CHAIRMAN DEALE: Mr. Black, I would like to check  
15 around the other parties and then come back to you folks if  
16 you have another thought.

17 Mr. Leed or Mr. Stachon?

18 MR. STACHON: Well, I don't have anything on this  
19 particular subject but I have a question of the applicants  
20 relating to Hanford and the question relates to a wire service  
21 story that was carried in one Oregon newspaper last week  
22 about an application by Puget for land at Hanford and I am  
23 little unclear as to just what the process involved there was  
24 and how that relates to the Skagit site.

25 CHAIRMAN DEALE: I draw a complete blank on that,

1865 116

1 but you know, Mr. Stachon. I don't know if there is any  
2 comment which Puget would want to make, why that would be  
3 fine.

4 MR. THOMSEN: We could address that if the Board  
5 would like.

6 What he is referring to, would you want to pursue?

7 CHAIRMAN DEALE: Well, I just want to go around  
8 the ring here. Mr. Leed?

9 MR. LEED: Well, I am glad Mr. Stachon made that  
10 observation because I share the overall view that Mr. Moser  
11 has expressed. These proceedings if the record now in front  
12 of us indicates that the site is not clearly superior to  
13 other available options, be terminated, rather than prolonged  
14 unnecessarily, and Mr. Stachon has made an observation about  
15 reports that Puget Power is joined I suppose the other  
16 partners in this application has already filed an application  
17 with the Federal Department of Energy for an allocation of  
18 site on the Hanford reservation, that was one report.

19 A second report that appeared was to the effect  
20 that these companies have been engaged in a regional siting  
21 study for some 18 months which would, I believe take it back  
22 well before our last hearing and particularly before the  
23 hearing we had on alternatives. That this siting study  
24 is apparently outted if it wasn't out some time ago.

25 CHAIRMAN DEALE: I am sorry, I didn't hear this

1 siting study is apparently what, outdated or what?

2 MR. LEED: No, no, it is apparently available.

3 CHAIRMAN DEALE: Oh.

4 MR. LEED: And yet apparently indicated the  
5 attractiveness of Hanford because it was alluded to in  
6 the same Press reports as the application to the Department  
7 of Energy.

8 Then, we also saw a report into the effect that  
9 on-site investigations had been conducted at Hanford, and  
10 I don't know during what time period or how detailed they  
11 were but there was a reference to that fact.

12 Now, of course, all this activity is activity  
13 that as far as we know has never been brought to the attention  
14 of the Board, but at least from the press reports gives the  
15 appearance that causes me to concern about the suspension  
16 idea because it appears that this activity can be accounted  
17 for only by the utilities having come to the conclusion that  
18 they intend to pursue the Hanford site. Of course, the  
19 Governor's announcement might reinforce that.

20 It would seem to serve no purpose for the staff,  
21 the Board and the parties to maintain this proceeding if  
22 indeed that is the course that has been settled upon.

23 CHAIRMAN DEALE: Mr. Thomsen?

24 MR. THOMSEN: Well, the press reports in regard  
25 to Hanford that have been referred to here have been with

1865 118

1 reference to a regional siting program that was commenced  
2 about a year and a half ago by the four Skagit applicants.  
3 Two searched the region for suitable nuclear sites for use  
4 in the 1990's or for plants that would follow on after  
5 Skagit and Pebble Springs.

6 In the course of that program they have identified  
7 a number of promising areas including several areas on the  
8 Hanford reservation. I think they in fact have drilled a  
9 few holes over there looking for the most promising site on  
10 the Hanford reservation.

11 So, that was reported in the press and the purpose  
12 of that study was to locate the sites for the units there in  
13 the 1990's.

14 Those studies and those efforts are still ongoing  
15 for that purpose.

16 Now, of course, if for some reason you can't put  
17 the Skagit units at the Skagit site I suppose Hanford is one  
18 of the good possibilities maybe we could or might be able to  
19 put them there. So these efforts may be useful in that regard  
20 some day.

21 CHAIRMAN DEALE: I think the -- I noticed the word  
22 that I used -- I used it and I -- well if I used another  
23 word that was to give instead of the word suspension as  
24 simply to provide for further time for Puget to respond to  
25 the questions if they wished to do so. Puget wishes to do so,

1 which have been initiated by the survey and passed along by  
2 the NRC. I am not sure, maybe the term suspension was not  
3 a good one but at least that is the one I used and I am  
4 talking about whether -- then I could see that people might  
5 very well say that this is a suspension but I am talking  
6 about providing a time for the applicant to prepare to answer  
7 the questions which the staff has given to the applicants.

8 Mr. Black, you were waving your hand, and I am  
9 sorry I suggested that somebody else had to speak first.

10 MR. BLACK: Being a member of the NRC staff I  
11 felt that it would be remiss if I didn't give you the NRC's  
12 staffs interpretation of its own regulations.

13 We have been faced with the term here that you  
14 used, Mr. Chairman and Mr. Moser used and finds its way  
15 into something that was just handed to all parties today  
16 and dated January 21st, it is SCANP's response to staff  
17 motion to postpone hearings. Although SCANP does not use  
18 the term, dismissal for lack of prosecution or diligent  
19 lack of prosecution or what have you, Mr. Moser did use  
20 that term, with or without prejudice, or something to that  
21 effect. But it all boils down to one thing, whether this  
22 Board can dismiss this application under one guise or  
23 another. Whether to provide the prosecution or whether it  
24 is for one means or another and I would just say right now  
25 and I haven't obviously looked at this question in great

1865 120



1 legal detail. But it is my understanding of the NRC's  
2 regulations that this Board has no authority to dismiss this  
3 application without making findings on all those issues that  
4 are before it.

5 So, in other words, I do not believe under the  
6 NRC's regulations that this Board can dismiss this application  
7 for a lack of prosecution.

8 I do not believe it has the authority to unilaterally  
9 dismiss the application under that legal term without making  
10 a full decision and without making findings of fact to support  
11 that decision.

12 Now, obviously that decision could be a denial of  
13 the application, but as I understand the term, it cannot be  
14 a dismissal of the application.

15 Now, as I said, I have not done a legal search of  
16 that term, but to the best of my recollection, I have never  
17 seen that happen in NRC proceedings.

18 So, I thought that I would throw that out, I would  
19 hate everybody to go home with the misunderstanding that that  
20 could possibly be done, and like I say, that is my own  
21 interpretation of the NRC's regulations.

22 CHAIRMAN DEALE: You are basically equating a  
23 denial of the application with a dismissal.

24 MR. BLACK: No, I think they are probably --  
25 I think they are two separate terms as I understand what

1 everybody is using.

2 CHAIRMAN DEALE: No, I understand that they are  
3 two separate terms, but --

4 MR. BLACK: A denial of the application has to  
5 be based upon a decision by the Board with appropriate findings  
6 of fact and the detailed reason decision. It cannot come down  
7 with just a --

8 CHAIRMAN DEALE: A failure to prosecute.

9 MR. BLACK: Right.

10 So, if the Board wants us to elaborate on that  
11 further I believe perhaps we should do so, but under separate  
12 briefing or something to that degree.

13 MR. THOMSEN: We will respond to SCANP's motion  
14 in due course, too.

15 CHAIRMAN DEALE: I must -- I didn't receive this  
16 last document of SCANP.

17 MR. THOMSEN: I am mistaken. I see that we are  
18 not entitled to responding. It was SCANP's reply to the  
19 staff's motion. I was mixed up on that.

20 CHAIRMAN DEALE: That is the one I was --

21 MR. GENDLER: Mr. Chairman?

22 CHAIRMAN DEALE: Yes.

23 MR. GENDLER: We are talking here about the one  
24 entitled SCANP's response to staff motions and postponed  
25 hearings on geology and seismology issues.

1 CHAIRMAN DEALE: May I just cite the documents  
2 that at least the Chairman has before him that appear to  
3 have been presented to the Chairman by laying the release  
4 on this table.

5 The one is NRC's staff objection to SCANP's  
6 interrogatories to staff regarding San Juan Islands seismic  
7 profile, that is one.

8 Now, SCANP's motion to compel answers to  
9 interrogatories to applicant regarding San Juan Islands  
10 seismic profiles and SCANP's response to staff motion to  
11 postpone hearings on geology and seismology and that is  
12 what you are talking about Mr. Gendler, and I think we have  
13 it here.

14 MR. GENDLER: Yes, Mr. Chairman.

15 The motion echoes some of the same concerns that  
16 Mr. Moser has raised on behalf of the County, and I might  
17 point out further here that your idea of a suspension brings  
18 up some problems I am not sure if the Board has considered.  
19 One being that it would seem as time goes on there would  
20 be an increasing need to re-open examination of several  
21 issues, specifically on every issue that relates to the  
22 timing of the proposal. Need for power. There is a basic  
23 assumption that the need existed in the late 1980's, the  
24 Skagit units were scheduled to come on then, they won't now.

25 Similarly, with alternative sources, financial.

1865 123

1 qualifications and perhaps almost every issue that is raised  
2 in the proceeding. These are all dependent on the plant  
3 coming on line in 1986, the first unit and the second in  
4 1989.

5 I think if we have a suspension for a year we  
6 might find out that not only have some of the issues that  
7 are hanging now, we might find those still remaining but  
8 we also might find that we have as many or even as many  
9 issues as we had when we began, and we would have to question  
10 the commitment of public resources to that kind of proceeding.

11 Similarly, and I think Governor Ray was the one  
12 who is most aware of this. The need is to address energy  
13 problems now and if the Skagit plants are no longer the  
14 solution for the last 1980's, I think that both the NRC  
15 Board as the people who evaluate these proposals and the  
16 applicants have a responsibility in the public interest to  
17 turn their attention toward other projects, whether they  
18 be nuclear conservation or otherwise that can meet those  
19 energy needs, because the purpose of the Skagit Project  
20 was to supply energy in a time period and that purpose  
21 can no longer be fulfilled, and I think we have to have  
22 a more basic examination of those kinds of issues before  
23 we can say we will put it off for a year and the issues  
24 that are somewhat settled remain so and other ones that  
25 are up in the air will become settled, because I do not

1 think it is going to work that way. It will become much  
2 more unsettled and people will be devoting energy to  
3 something that is just not meetings its purpose.

4 MR. THOMSEN: It seems to me, Mr. Chairman, we  
5 are kind of getting hung up on semantics here, suspension,  
6 dismissal, with or without. I was taken by Mr. Black's  
7 observation that within some predictable time, applicants  
8 ought to be able to decide you know what work they are  
9 going to do, what work they are not going to do, make  
10 an estimate of how long it will take them to respond to the  
11 request for additional information and so on.

12 For example, and I haven't talked to my people  
13 yet, but it might be an arrangement that within two months,  
14 for example, we will advise the Board and the parties  
15 that here is our action plan for responding to these ten  
16 questions, and here is what we are going to do and what  
17 we have already done and what we can't do and whatever.

18 As sort of the next step in this process, and I  
19 don't know if it makes much difference if you call what we  
20 are going to be in between now and then a suspension or  
21 just waiting for that. Call it waiting, that would be it.

22 MR. GENDLER: Mr. Chairman, Mr. Thomsen has started  
23 off by saying we might have a semantic difference but I don't  
24 see that because he hasn't attempted to show that at all on  
25 the same wave length or that there is a minimal or no difference

1 between the course that he is suggesting and a dismissal.

2 He hasn't addressed the problems of the basic  
3 purpose of the project, where it is going, and the increasing  
4 problems it will have if the application is postponed for  
5 a year or more.

6 In addition to that, SCANP has constantly required  
7 to devote the resources has the emotional burden of having  
8 the application pending, and it would be an entirely different  
9 situation if it were dismissed if after a year or two the  
10 applicant were to determine that Skagit is still the best  
11 site, they could bring a new application and that would be  
12 a different question. One of the citizens anywhere are  
13 subject to it, but here we have a group that has been  
14 participating in these proceedings on limited resources  
15 for a very long period and now they are asking to continue  
16 their participation without any effective way of bringing  
17 them to a resolution, and we are very anxious to hear what  
18 Mr. Thomsen says about the chances of a resolution and the  
19 commitments that the applicant will make to bring the case  
20 to one. We haven't heard anything addressed to either of  
21 those two points.

22 I don't think they have a right to continue this  
23 proceeding without addressing their commitment and the public  
24 interest in allowing them to proceed as they suggest.

25 MR. THOMSEN: Maybe Mr. Gendler wasn't here but

1 I thought I covered all of those here today.

2 CHAIRMAN DEALE: Let's take a recess for ten  
3 minutes. Mr. Leed might have a constructive suggestion  
4 to make. It seems to me that it ought to be of considerable  
5 assistance to the Board, and I know it would be to us, if  
6 Puget could indicate whether or not it intends to undertake  
7 any field work in response to the USGS requests.

8 I would imagine that if Puget informs us that  
9 no field work will be undertaken that that would put the  
10 matter before the Board now in a rather different posture  
11 than if Puget advises it will undertake field work.

12 MR. THOMSEN: We cannot say yes or no on that.  
13 We don't even have some of the material. For example, we  
14 don't have Whetton's map yet and so on.

15 So we can't say whether we are going to do more  
16 field work or how much today. I am sorry. That is what I  
17 am suggesting, that in the two months or some reasonable time  
18 frame like that, we will be able to do it, I hope. I hope to  
19 tell you.

20 In answer to that, I am sorry we can't say.

21 CHAIRMAN DEALE: Let's take a recess and stretch  
22 our legs.

23 (Recess taken for ten minutes.)  
24  
25

RK/bm

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1 CHAIRMAN DEALE: Please come to order.

2 Please come to order.

3 We're going ahead with our agenda here and  
4 generally, on Items 2, 3 and 4, we're going to set aside,  
5 pending a disposition of the geology and seismology matter,  
6 and Item 5 of others. I have three items, really for  
7 future reference. Mr. Thomsen, some time ago, we spoke  
8 about getting, or securing copies of agreements among the  
9 owners and I think at the time the agreements, I don't  
10 know, hadn't been signed yet or perhaps some of the lawyers  
11 didn't cross all the "I's" or "T's" in the agreements,  
12 but we want you to know that we're still interested in it  
13 and, hopefully, you might have copies of these agreements.

14 I think the notion of the scope of the  
15 agreements becomes understandably important when we get  
16 into a situation where there's, say, uncertainty and so  
17 forth with respect to the handling of the application,  
18 that is all of the objections that have been raised by  
19 the geological survey through the staff, the Skagit  
20 turn-down, maybe the Dixie Lee Ray statement that one or  
21 the other of the co-owners or co-applicants might tend to  
22 have different views about the matter. I'm sure that the  
23 way the proceeding has moved along might be a discouraging  
24 factor.

25 So, in view of the unsettled character of the



8/2

1 situation, I think it would be -- again, we come back to  
2 you with the statement that we would still like to have  
3 copies of the agreement

4 MR. THOMSEN: The problem is there aren't any  
5 agreements. You have a copy of the only agreement there  
6 is, which is the one that's in the general information  
7 binder. That is still the only agreement there is between  
8 the parties related to Skagit. And as soon as there is  
9 a further agreement, why, you can be sure it will be  
10 supplied, and as Bigley described to you, my partner  
11 Doug Bigley, I think it was in August, I think it was --  
12 at any rate, the parties have been working on one. You  
13 know, they've progressed, they have a draft of a proposed  
14 owner's agreement but they haven't completed the job yet.  
15 So, we have a half dozen drafts and the existing summary  
16 agreement which you have. And as soon as we finish the  
17 job, why, we'll file the agreement.

18 CHAIRMAN DEALE: Well, very good. There's  
19 another letter and I'd suggest that perhaps the staff  
20 might get together with the applicant to pull together  
21 an answer. And that's a meteorology letter of November 13,  
22 1979. And it is addressed to me and it has to do with, oh,  
23 the moisture in the air and the cooling towers. It's an  
24 environmental statement, if you will, by a person who you  
25 might say his letter could have the equivalent of a limited

8/3

1 appearance or he's identified as an interested citizen  
2 and, are these Skagit's concern about nuclear power and  
3 as interested citizens. The name is E. Brady, and if  
4 you'd check it out and in the response, of course, that  
5 would be circulated among the parties and if somebody has  
6 a further thought on the matter, why, they can put their  
7 statements in the record, but it's a letter that a couple  
8 of us here have looked upon and we thought it ought to  
9 be answered. And, we think you have the technical  
10 wherewithal to handle it.

11 And then there's a question of impact of  
12 core meltdown per the Commission's policy. And if anyone  
13 has a further question about that, why, I would suggest  
14 that they raise it to Mr. Linenberger. These are items  
15 which again are -- I'd like to get the letter offer  
16 answered. But the other matter is in a sense a matter  
17 which might be put aside along with Items 2, 3 and 4  
18 until we deal with the matter of geology and seismology.

19 Now then they have here -- now, is there any  
20 further comment about staff's motion to postpone the  
21 hearing on geology and -- on geologic and seismic issue  
22 dated November the 2nd, 1979.

23 We have SCANP's answer to it. Is there any  
24 further comment or answer with respect to that motion?  
25 The motion had been dated December the 2nd, I forgot the

1865 130

8/4  
1 time in which answers were supposed to be gotten in. If  
2 there's a -- but is there any other further comment on the  
3 subject? I think that's all right, this idea might be  
4 taken up with the general notion of giving the applicant  
5 some time to develop its answers, presumably in preparation  
6 of further hearings on this geological and seismological  
7 matter.

8 MR. GENDLER: Mr. Chairman --

9 CHAIRMAN DEALE: We do not think that the  
10 matter is closed because of questions which have been raised.  
11 This is a matter that is open and we --

12 MR. GENDLER: From your observation you just  
13 ask for comments a minute ago. Mr. Black suggested that  
14 it might be beyond the Board's power to dismiss, but I  
15 think it might also be beyond the Board's power to grant  
16 a continuance without having the proceedings move forward.  
17 I think rather than engage in a debate over whether the  
18 regulations address the precise event that has not come up  
19 before, but we are faced with now, I think we look to  
20 principles of administrative law that are applicable to  
21 this proceeding and all administrative proceedings and I'm  
22 sure you'll find that for reasons within the regulations  
23 or for failure to prosecute or because it would be futile  
24 and hopeless, and perhaps also because summary disposition  
25 may be appropriate on issues that it is no longer

8/5

1 conceivable that applicant could carry the day that  
2 dismissal would be appropriate.

3 CHAIRMAN DEALE: The first person who mentioned  
4 the possibility of the Board dismissing the applicant's  
5 case because of failure of prosecution was the Chairman.  
6 It wasn't anyone else. Now, we too considered this.  
7 Whether we have the matter, say the regulatory authority  
8 or not. Where I don't believe it's so limited minded  
9 that if we decided to do something about it, we could  
10 figure out a way of doing something about it such as a  
11 recommendation. That doesn't cost anything. And just  
12 buck it up and let somebody else, you know, worry about  
13 it.

14 But we have considered this matter and we have  
15 indicated that this is simply a possibility. We don't  
16 know what the applicants are going to do. The possibilities  
17 are numerous. They can simply say we're not interested in  
18 these questions, we think they're ill advised. We've got  
19 our own authorities and we're going forward with this  
20 application. So they go forward and if they want to take  
21 that position, fine. And we would simply schedule hearings.  
22 My goodness, they've only had a couple of weeks to look  
23 at this batch of applications.

24 On the other side they might say, "Well, we  
25 want to go forward with it. We think that there's some

1865 132

8/6

1 merit in these questions, but my goodness, the questions  
2 are considerable and if they want answers, if the staff  
3 wants answers, we've got to do some work and we're willing  
4 to do the work. You've heard the applicant say as much.

5 And, so what we're coming around to the idea  
6 is that we're going to give the -- give isn't really the  
7 word -- the applicant will be allotted the time, a  
8 reasonable amount of time to do something about these  
9 questions and we're not going to -- we're not disposed  
10 at this point to say, "Look, there's no more proceeding  
11 here." Simply because some very difficult questions,  
12 presumably very difficult questions to answer. We're  
13 going to give the applicant who's just received the questions  
14 a chance to answer them. That's all. And so far as the  
15 notion is concerned that the applicant is not going to  
16 anything, well, we are in a position of saying, well, if  
17 the applicant isn't going to do anything, we got these  
18 questions we think that somebody ought to be looking at  
19 them and the applicant isn't going to look at them, why  
20 then, there would, I think, be reasonably raised in our  
21 mind the idea, and I think that it might be better for  
22 me to suggest that our approach might be, and this is  
23 just in terms of trying to develop possibilities here,  
24 recommending a dismissal or whatever the procedural vehicle  
25 might be. We're not presuming that we have the authority

1865-133

8/7

1 to dismiss a case without writing an initial decision of  
2 some sort, but we're trying to handle, as a practical  
3 matter, a particular case that has been given to us and  
4 it's -- and all of a sudden we have this sudden group of  
5 questions that have been posed to the applicant. And  
6 we're going to give the applicant a chance to answer them.  
7 That's all. And that's it. Okay.

8 Now, in view of the -- well, we have here  
9 the -- and we think that your answer, the answer to your  
10 motion, you know the staff's motion to postpone the hearings  
11 on the geological issues, might be taken up in some, well,  
12 we'll put it out in a release, some Board ruling that  
13 along the lines that we've said we would like to keep  
14 track of this thing and give the applicant some time to  
15 respond to what it proposes to do with respect to the  
16 questions.

17 Then it goes on to say well, discovery, we're  
18 not -- this is kind of a premature question at this point  
19 because we're not involved, or we don't have scheduled  
20 hearings on questions, but I'm sure that discovery matter  
21 is going to be forthcoming at a later time. And then we  
22 have here the applicant's objection dated December the  
23 12th, 1979 to SCANP's Interrogatories to Applicant regarding  
24 San Juan Island seismic profiles. Now then we have here  
25 also, an NRC staff's objection to SCAMP's Interrogatories

1865 154

8/8 1 to Staff regarding San Juan Island seismic profiles.

2 I think that it would be helpful if the parties  
3 wish to speak on that. Let's see, the SCANP has made the  
4 Interrogatories to the Applicant -- would you care to  
5 supplement what you've already given to us, Mr. Thomsen?  
6 Or Mr. Little.

7 And then, also, Mr. Black could ask you, and  
8 then SCAMP would have a chance to make its position known.

9 MR. THOMSEN: The Board is recalling that today  
10 we have SCANP's motion to compel Answers to those  
11 Interrogatories.

12 CHAIRMAN DEALE: Yes. I associate all of  
13 this together.

14 MR. THOMSEN: Okay.

15 CHAIRMAN DEALE: And I must say that I haven't  
16 read SCANP's motion to compel yes.

17 MR. THOMSEN: We haven't either. We have  
18 scanned it here today but, obviously, you can't answer  
19 that on the spot.

20 CHAIRMAN DEALE: Well then, let's see is this  
21 the SCANP motion to compel, this is a SCANP motion with  
22 respect to the applicant's response.

23 MR. THOMSEN: So, in the normal course of  
24 events, I guess we would answer --

25 CHAIRMAN DEALE: Yes. No, then now we're at

3/9  
1 SCANP's motion. Yes, that's right.

2 MR. THOMSEN: I would suppose in the normal  
3 course of events we would answer this motion. Then the  
4 matter would be ripe for disposition. So, we'd like to do  
5 that in the usual way, in writing, in the prescribed time.  
6 Do you have anything you want to say, then?

7 CHAIRMAN DEALE: Mr. Black, now here we have  
8 NRC staff's objection to SCANP's Interrogatories to Staff  
9 regarding San Juan Island's seismic profiles. We just  
10 received it. We haven't had a chance to read it. Do you  
11 have any -- do you want to say anything about the subject?

12 MR. BLACK: No, I would only note that we  
13 filed that Friday and, again, here are copies from those  
14 discussions. The parties were thinking that we might  
15 discuss it. Our objection is very simple, and that is  
16 that we feel that the Board has no jurisdiction to decide  
17 this question that SCANP poses here, when it requested  
18 Interrogatories, the filing of Interrogatories. That is,  
19 namely, whether the applicants have made a material false  
20 statement in regard to the existence of the seismic profiles,  
21 the recent proprietary seismic profiles and we think that  
22 it's fairly clear that the Board has no jurisdiction to  
23 decide whether an applicant has made a material false  
24 statement, and that's -- we feel the licensing, any  
25 licensing board when it's convened has only that authority



1 which the Commission delegates to it and the delegation of  
2 power in this proceeding is clear, and that is what is  
3 contained in the notice of hearing, and those are environ-  
4 mental issues and safety radiological issues. There are  
5 no issues that pertain to whether applicants have made  
6 material false statements.

7 Now, I notice that SCANP has made reference  
8 to the North Anna case, which was a material false statement  
9 case, but there the Commission did delegate to the licensing  
10 board special powers to look into the question of whether  
11 that applicant in North Anna had made material false statements.  
12 I would merely note that the licensing board that was convened  
13 in the usual sense there did not have the authority to look  
14 at this particular question, and that is the legal objection  
15 that we have to the Interrogatories when it has a specific  
16 purpose involved, and that is to decide whether the applicant  
17 made a material false statement.

18 I also attached an affidavit from a staff geologist  
19 regarding our existence or our knowledge of the existence  
20 of those profiles. I think answers the questions but  
21 we posed a legal objection to it.

22 (Continued on next page)  
23  
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1 CHAIRMAN DEALE: Does this have to do as a  
2 basis of the Interrogatories to Staff, is whether the  
3 applicant had made a false statement. I just want to make  
4 sure that I'm tracking you here?

5 MR. BLACK: The Interrogatories asked the  
6 staff, basically, a scenario of questions which involved  
7 the staff's knowledge of the existence of those proprietary  
8 seismic profile lines. We took it to mean that they were  
9 inquiring of all parties as to the scenario with which  
10 these profile lines came into existence in this proceeding.  
11 I think that the affidavit attached to our objection  
12 indicates how we became aware of the existence of these  
13 profiles.

14 CHAIRMAN DEALE: All of this is in your --

15 MR. BLACK: Yes. And I merely want to state  
16 that we think we have a valid legal objection to not answering  
17 but I also think there's a practical matter and we have  
18 responded in the attached affidavit.

19 CHAIRMAN DEALE: And you cite this North Anna  
20 case?

21 MR. BLACK: I have not cited it, no. I merely  
22 indicated that we don't think the question of whether the  
23 applicant has made a material false statement with regard  
24 to the seismic profiles is not a subject matter involved in  
25 this proceeding. And it clearly is a precedent to filing

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1 our Interrogatories in the first place. It has to be  
2 questions that pertain to subject matters in controversy.

3 CHAIRMAN DEALE: And SCANP, do you want to talk  
4 about, say, your request for Interrogatories sort of on a,  
5 you know, seriotim basis, one to the applicant and then one  
6 to SCAMP.

7 MR. BLACK: Or one to the NRC staff.

8 MR. GENDLER: That's right. We read, stated  
9 in the Interrogatories the purpose of them, and it's not  
10 thought that SCANP made any false statements, although we  
11 asked Interrogatories of SCANP to try and find out exactly  
12 what did happen. First, as to jurisdiction, I may be wrong  
13 but I think that in the North Anna case the matter was first  
14 brought to the attention of the licensing board that is  
15 considering the application. That licensing board did not  
16 rule that it lacked jurisdiction, but rather ruled that it  
17 would be best, in a discretionary sense, to refer the matter  
18 to the Commission for the purpose of convening a new Board  
19 to address the allegations and concerns.

20 The Board gave as its reason that it preferred  
21 to push the proceedings before it to a conclusion without  
22 having something that was not closely related to the  
23 geology issues there, to the merits of the geology issues,  
24 take up that Board's time. But I do not believe that that  
25 Board ruled that it lacked jurisdiction.

1865 139

9/3  
1 We thought that before bringing a formal  
2 allegation requesting either this Board to address it, or  
3 asking the Commission to convene a new Board and that we would  
4 offer the applicant an opportunity to answer the questions,  
5 to come forward and state its version. The applicant's  
6 objections don't really do that. They could have answered  
7 our specific questions about the nature of the information  
8 and when it was gathered, had they answered our Interrogatories  
9 under oath, as we requested.

10 So, I'm not sure that the Board lacks  
11 jurisdiction to begin the initial steps to determine whether  
12 there's something that should be carried further.

13 CHAIRMAN DEALE: Do you have the citation of  
14 this North Anna case, the Vepco case? Or is it in your  
15 material?

16 MR. GENDLER: It's cited in our motion to  
17 compel. It was reviewed by the Fourth Circuit Court of  
18 Appeals and the Court confirms the Commission's order --

19 CHAIRMAN DEALE: Yes.

20 MR. GENDLER: -- there were opinions all the  
21 way through the licensing board, appeal board, and Commission  
22 levels.

23 Our next response is that both applicants and  
24 staff are untimely in their objections. On that basis, and  
25 I think they should be compelled to answer, we haven't made

9/4

1 a motion of that nature with respect to staff, but the first  
2 point raised in our motion to compel answers from applicant  
3 is that their objections are untimely and shouldn't be  
4 considered.

5 I think in responding to the substance of our  
6 concern, both applicant and staff have misconstrued the  
7 appropriate standard. The staff's affidavit deals with  
8 knowledge of the information, when the staff got knowledge,  
9 when the knowledge was transmitted from U.S.G.S through the  
10 staff into a formal request that Puget obtain data. One  
11 of the propositions made clear by the Commission in North  
12 Anna was that knowledge is not relevant to whether a  
13 material false statement has been made. It may be relevant  
14 to the appropriate sanction, and here it appears to us that  
15 there are several possibilities which might call for  
16 different sanctions. One is that perhaps a consultant was  
17 aware of these materials and did not inform either Bechtel  
18 or Puget. We have in mind Dr. Dolbrin we know to have  
19 had access to other data produced by that firm --

20 CHAIRMAN DEALE: Which firm?

21 MR. GENDLER: Western Geophysical. We simply  
22 haven't been able to ask him and Puget has not responded to  
23 our Interrogatories along that line, to determine what he  
24 may have known about other work performed by Western  
25 Geophysical. And then there's the possibility that he may

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1 have known of its existence, but not its content. And so  
2 on. So, there are many different possibilities which really  
3 only applicant can address, all of which would go to the  
4 appropriate sanction. But none of those are relevant to  
5 whether a false statement has been made. We've cited several  
6 statements in our motion to compel if we proceed to the  
7 stage of making a formal allegation, we would set the  
8 statements forth in full, but the gist of the statements are:  
9 This is all the data. All the data has been provided. This  
10 is all the data we know about and, again, that may or may  
11 not be false, and we're particularly concerned that the  
12 previous Board Chairman specifically asked applicant, "Is  
13 this all the data" and these questions were also address  
14 to Dr. Dolbrin when he was testifying.

15 "Do you know of any other data?" "Is this all  
16 the data?" And there were statements made that there was no  
17 other data which conceivably could lead to the conclusion  
18 of faulting exists. So, that's the basic thrust of the  
19 statements which may be false statements.

20 CHAIRMAN DEALE: Are these references to the  
21 former Chairman's position and also to Dr. Dolbrin, these  
22 references indicated. That is, in the transcript?

23 MR. GENDLER: Yes. In our motion to compel.

24 CHAIRMAN DEALE: - I just got this, of course.

25 MR. GENDLER: There are citations mostly to

9/6

1 hearings, but also to the PSAR, there's an appendix written,  
2 I believe by Dr. Dolbrin, which has some statements which  
3 may be relevant in this regard. So, again, we suspect that  
4 these statements are false, but it would be appropriate for  
5 this board or another board to inquire whether the people  
6 making them knew, because the Commission's decision, its  
7 opinion in the North Anna case makes it clear that there's  
8 a vast range of appropriate sanctions. But the thrust of  
9 their opinion was that as opposed to a Securities proceeding  
10 where the major interest of the Securities Commission is  
11 honesty and integrity, the major concern of this Commission  
12 is safety and there's a higher duty imposed upon applicants  
13 to, not only make honest statements, but also to know  
14 everything there is to know regarding the proceeding. Now,  
15 it is a very high standard, and the Commission was aware that  
16 it was a high standard when it discussed it, but still  
17 found it appropriate to impose that standard.

18 Similarly, the Commission held that the failure  
19 to make a statement, an omission, could be a material false  
20 statement. In the context presented in North Anna, the  
21 applicant had failed to bring to the attention of the Board  
22 a suspicion of faulting. And the Commission ruled that  
23 in addition to some affirmative statements, that faulting  
24 was neither known nor suspected, the failure to bring it to  
25 the Board's attention when hearings were ongoing on other

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1 construction permit issues, was a material false statement.  
2 So there are lots of fine points which would have to be  
3 litigated fully, but while the applicant's objection makes  
4 it clear that they are very concerned about unfounded  
5 allegations and the press's response to allegations, we  
6 thought it would be best if they would come forth and answer  
7 our concerns in this record, because we really don't have  
8 another source for the information and we're not interested  
9 in having accusations and allegations which are not founded  
10 and are damaging come out. So we were hoping they would  
11 answer the Interrogatories.

12 CHAIRMAN DEALE: Again, you understand,  
13 Mr. Gendler, we haven't, you know, read this material. Could  
14 you just indicate what is the information that you want?

15 MR. GENDLER: We're interested in learning  
16 whether applicant or consultants engaged by applicant, were  
17 aware or or had access to or knew the contents of any  
18 seismic information, but specifically the 1971 lines which  
19 came to light in August of 1979, at a time when they were  
20 testifying before this Board that they had produced all the  
21 information there was or -- and had made other statements  
22 that either that was all the information there was or that  
23 was all the information available.

24 We're also interested in exploring the  
25 relationship between --



9/8

1                   CHAIRMAN DEALE: Do you want the information --  
2 basically, you want the information that presumably the  
3 applicant might have withheld from you. Is that -- you  
4 want the information of the applicant's contractor? Or I  
5 mean, I'm just trying to frame this to make sure that I  
6 understand right.

7                   MR. GENDLER: My understanding of the record  
8 is that Dr. Dolbrin has had a working relationship with  
9 Western Geophysical in the past and there are also some lines  
10 that were produced by that firm for Mobil. I believe he was  
11 aware of those. It struck us as curious that he testified,  
12 I believe in 1975, on the basis of information provided by  
13 Western Geophysical and then a year to two later Puget  
14 commissioned a study by that firm without being aware that  
15 the firm had done previous work in this area. It may be  
16 that the firm never told Puget that we have these lines  
17 although that is curious to us too because that firm is in  
18 the business of selling that sort of data. So, our  
19 Interrogatories asked, "Well, did you know about it? Did  
20 Dr. Dolbrin know about it? Did Dr. Dolbrin speak to these  
21 people?" Those sorts of questions. The answers, I think,  
22 would make all that clear and would let us know exactly how  
23 much about this and any other geological information that  
24 would have been relevant was known or could have been known  
25 to applicants or their consultants when they were testifying

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1 on geology.

2           Mr. Hooper: Mr. Gendler, can I ask a question  
3 here about the geophysical lines. Are you referring to the  
4 testimony we had at Bellingham when we were dealing with  
5 the tectonics province information and whether or not the  
6 tectonic province is in the area of Puget Sound were such  
7 that they were -- there was a division of provinces. And  
8 the applicant was pushing the idea that in Puget Sound there  
9 was two provinces based upon faulting and this sort of  
10 thing. Was it at that stage that you're talking about  
11 that you wanted the seismic profile data in the Bellingham  
12 region to verify or -- some of the hypotheses that were  
13 advanced regarding the province idea. Is that the time  
14 you're referring to in the record?

15           MR. BLACK: Dr. Hooper, let me respond since  
16 I was in attendance at those hearings and Mr. Gendler was  
17 not, and I would agree with that observation and I would  
18 supplement it by pointing out that it was the applicant and  
19 Dr. Dolbrin who unbeknownst, to I believe any of the other  
20 parties, including staff, came forward at that time with  
21 certain seismic lines and utilized this information as a  
22 part of the basis for the opinions expressed by Dr. Dolbrin  
23 on the tectonic province issue. And it was the Board which  
24 then challenged the applicant to make available the seismic  
25 information to staff and other parties and at approximately

9/10

1 that time, why, after the hearing at any rate, the seismic  
2 lines that Dr. Dolbrin had chosen to bring forward were, in  
3 fact, furnished, so the Interrogatories were designed to  
4 elicit whether or not Dr. Dolbrin at that time, in effect,  
5 selected certain seismic lines and yet was aware there were,  
6 in fact, others.

7 CHAIRMAN DEALE: I see, thank you. Mr. Leed,  
8 again, I asked this question and I wasn't at these hearings  
9 which are being alluded to. Is the, say the mischief of  
10 misinformation, or a withholding of information being  
11 charged to Dr. Dolbrin or to the applicant or to both?

12 MR. LEED: The possibilities are, I think as  
13 Mr. Gendler has indicated, that Dr. Dolbrin had the knowledge  
14 and did not communicate it. Let's put it this way: We've  
15 identified these as the realistic possibilities. Now, there  
16 are many way I suppose, of relatively less plausible  
17 possibilities, but to us it seems very plausible indeed.  
18 The unpalusible probably probable. Dr. Dolbrin had  
19 knowledge of more seismic line information than he brought  
20 forward at that time.

21 CHAIRMAN DEALE: Dr. Dolbrin was at that time  
22 not an employee of the applicant. He was a consultant to  
23 what is the name of --

24 MR. LEED: The applicant and Bechtel. I believe.  
25 I mean, and Bechtel.

9/11 1 CHAIRMAN DEALE: Dr. Dolbrin was a consultant  
2 to Bechtel.

3 MR. LEED: And/or the applicant. I'm not sure  
4 whether his contact was directly with Puget or was with  
5 Bechtel, but somewhere in there.

6 CHAIRMAN DEALE: All right. He's not an  
7 employee of Bechtel, I guess. I mean, not an employee of  
8 the applicant?

9 MR. LEED: No.

10 The reason we come to this, through Dr. Dolbrin,  
11 is, of course, that Dr. Dolbrin is evidently the one who  
12 knew about the existence of the lines and as I believe the  
13 record will show, brought them to the applicant's or  
14 Bechtel's or both's attention in the first place.

15 Now, this was because he had had other work  
16 that he had done which involved the seismic explorations.  
17 We did not, on the record, explore, as I recall at any  
18 length exactly how extensive his experience had been, but  
19 I think that much is suggested.

20 Now, the possibility then is certainly greatest  
21 that Dr. Dolbrin had knowledge of these additional seismic  
22 lines that were done. And, remembering that he has been  
23 a consultant to the applicant throughout and that this  
24 testimony was given at a time after both the Mobil lines  
25 and the '71 Western Geophysical lines had been done, quite

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1 a bit after, so this information, it is clear, was in  
2 existence at the time he initially testified.

3 Now, the second major fact, of course, is  
4 that Western Geophysical itself was hired by the applicant  
5 to perform a series of seismic investigations by the  
6 applicant and as I understand it, this was directly a  
7 direct relationship with Puget Power. But again, presumably  
8 under the direction of Bechtel, or in cooperation with it,  
9 in '76 or '77, and the question then becomes: Did the  
10 applicant, even if Dr. Dolbrin failed to advise the applicant  
11 and/or Bechtel in '74 or '75, about the existence of the  
12 seismic lines that came to light in August of '79, did  
13 Western Geophysical advise the applicant in 1976 or '77  
14 itself of the existence of those lines which it had taken  
15 apparently for the purpose of a commercial speculation or  
16 venture, if you will, to have part of its library to sell  
17 to interested clients. And again, it is perfectly plausible  
18 to raise the inference that Western Geophysical, in its  
19 relationship with Puget, would have communicated the  
20 existence of that information.

21 I think, therefore, those elements of the  
22 picture which I've alluded to and which are before us,  
23 raise the question as to what extent did Puget Power know  
24 the existence of the information. To what extent did  
25 Bechtel know of the existence of the information and to

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1 what extent did Dr. Dolbrin know and when did they learn about  
2 it and frankly, since all of these seismic lines are  
3 proprietary, and have been repeatedly given that status  
4 at the request of Puget, there is literally no other way  
5 to get at this information but to direct the Interrogatories  
6 as we have done.

7 CHAIRMAN DEALE: All right. We have our --  
8 or, sorry, Mr. Swanson?

9 MR. SWANSON: The North Anna case has been  
10 mentioned a few times, and I just thought perhaps I could  
11 clear up a couple of matters since I was representing the  
12 staff in the proceeding. The North Anna proceeding simultaneous  
13 with the ongoing C.P. Permit Proceedings, the information  
14 was developed which led to the issuance of a show cause  
15 order by the staff. There were requests for hearing made  
16 by parties. The Board presiding on the licensing decision  
17 did not rule on the request, but rather the Commission  
18 issued an order empowering what happened to be the same  
19 Board, same people involved as a special body to consider  
20 the proceedings including the request for a hearing. Now,  
21 I don't recall whether or not any of the licensing boards  
22 happened to issue a statement as to the jurisdiction of a  
23 licensing board in the ruling on CP as to consider  
24 enforcement matters, but I can point to the appeal board  
25 decision at 324 when it did address the issue of

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1 jurisdiction and I would just mention that the appeal board  
2 in that decision, when it responded to Veco's challenge  
3 of jurisdiction, did not in fact refer it to the initial  
4 authorization of a licensing board to be considered CP. It  
5 instead referred specifically to the May 23th 1974  
6 commission order which empowered a special board to preside  
7 over the enforcement proceedings. On the general matter  
8 of jurisdiction of boards consider enforcement matters, I  
9 am prepared, at this time, if the board desires, to give  
10 legal citations, to support staff claims that the board  
11 is powered to consider a licensing issuance of construction  
12 permits, is not authorized to consider enforcement matters.

13 CHAIRMAN DEALE: You say you have citations on

14 (Continued on next page.)  
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1 that point, I assume. Have you got them there?

2 MR. SWANSON: Yes I do. I'd be glad to proceed.  
3 Basically, I would make six points. The first  
4 point is that boards are delegates of the commission----

5 CHAIRMAN DEALE: We're looking for a couple of  
6 citations. This is the general citation that the board ----  
7 go ahead ----

8 MR. SWANSON: Are delegates of the commission  
9 and have only those powers the commission gives to them.  
10 Cite to the Atomic Energy Act Section 191 states this. I  
11 could cite the Bailey decision, ALAB-249, 3 AEC at 987. I  
12 could refer to the Marble Hill decision, ALAB-316 which says  
13 that. I refer you to page 170 of 3 NRC. I could also  
14 refer you to the Midland decision ALAB-325, 3 AEC, and I  
15 would refer to page 647. I could also refer to the  
16 regulations 2.721(a).

17 The second point I would make is that the scope  
18 of jurisdiction for a specific hearing board is found in  
19 the hearing notices and orders issued by the commission  
20 in that proceeding; the same Marble Hill decision I mentioned  
21 before at page 170, 171 says this. You can also see this  
22 at Regulation Section 2.717(a). Also in support of this  
23 I would mention the Gilbert decision in North Anna that I  
24 referred to. You could specifically look at 3 NRC at page  
25 390 where the appeal board looked at the jurisdiction to

152



3  
1 consider -- the jurisdiction of the licensing board to  
2 consider enforcement matters. It didn't look to the  
3 general authorization of a CP hearing board, instead it  
4 looked to the special authorization contained in that  
5 commission order.

6 My third point is that board jurisdiction in  
7 CP licensing proceedings of the Skagit is limited to  
8 safety and environmental issues set forth in 10 CFR Part 2,  
9 App. A, VI(c). For Skagit that would appear in the  
10 Federal Register, or, excuse me, in the initial order of  
11 the commission which appeared in the Federal Register at  
12 39 F.R. 44065 (12/20/74).

13 CHAIRMAN DEALE: All right. The commission --  
14 not the commission, this board has its work cut out for it  
15 on this matter.

16 MR. SWANSON: I -- I had ----

17 CHAIRMAN DEALE: I don't want to -- I think we  
18 have got enough to -- go ahead ----

19 MR. THOMPSEN: I think we're entitled -- there  
20 have been some serious speculations voiced here today and  
21 I would simply like to say, on behalf of the Applicant, as  
22 we said in our objection of December 12, 1979, that Puget  
23 did not have any knowledge of the existence of this data  
24 until it learned about it from the NRC in August of 1979;  
25 that we have inquired of Bechtel and they did not and we

1 have inquired of Dr. Dolbrin and he did not. It does not  
2 seem clear from what Mr. Swanson is saying that this matter  
3 is somewhat beyond the pervue of this Board, but I wouldn't  
4 want this speculation to go unanswered here, nevertheless,  
5 that it is beyond the jurisdiction of this Board. So, I  
6 hope that that is very clear, what I have said.

7 CHAIRMAN DEALE: Let's see, Mr. Thomsen.  
8 You are going to be answering this SCANP motion?

9 MR. THOMSEN: We will be answering the motion,  
10 yes.

11 CHAIRMAN DEALE: To compel, and I think it might  
12 be -- you've already, no, you don't have the -- you have  
13 these citations that -- I think it would be helpful to the  
14 Board, could you list those citations? It is terrible to  
15 scratch down here these legal references. Could you just  
16 send a copy of that material?

17 MR. SWANSON: Well, that should be enough. I  
18 think I gave enough citation for the record but reading the  
19 transcript today would refer, at least to those cases. I  
20 had a couple other points, but the one's I have mentioned  
21 thus far would be in the transcript.

22 CHAIRMAN DEALE: Go ahead. How long is it going  
23 to take to finish those other two points?

24 MR. SWANSON: Well, one is more of a policy  
25 argument. That one other legal point, that being the

1 licensing Board must confine its initial decision to matters  
2 within the scope of its jurisdiction. That may seem like  
3 a foregone conclusion but that was the subject of a decision  
4 in ALAB 94, to be found at 6 AEC 31.

5 One final point which is different from the others,  
6 though, is that if in fact SCANP was considering gaining  
7 information to determine whether it should request action,  
8 even if it were to request action from a special board to  
9 be empowered, I would note that the motion to request action,  
10 under Part 2 of the Regulations is available only against  
11 the licensee or permitholder. If you look at Section 2.202,  
12 it specifically refers to a licensee, that, of course, in  
13 turn means permitholder.

14 CHAIRMAN DEALE: Puget hasn't arrived here yet.

15 MR. SWANSON: I think the staff would argue  
16 that Puget is not subject to that provision. If someone  
17 were to ask why with North Anna, then I would point out that  
18 if you look at the caption of the false statement proceeding,  
19 the caption refers to the units 1 and 2 proceeding, not the  
20 3 and 4 proceeding which was still the subject of CP proceed-  
21 ings and in fact the staff went after VECO on the basis of  
22 the permits if didn't already hold.

23 MR. LEED: I was going to ask Mr. Chairman if  
24 staff is advising us that it's open season on misstatements  
25 prior to issuance of a license. Is that the position that

POOR ORIGINAL

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1 counsel is taking?

2 MR. SWANSON: Certainly not. Obviously one of  
3 the issues the Board is to consider is technical competence  
4 of the management. I suppose we could think of other things  
5 for which it would want to know about the problems. But I  
6 was responding specifically to the suggestion in SCANP's  
7 pleading that a false statement proceeding or some other  
8 enforcement proceeding might be in the offing should  
9 information be determined that supported it.

10 CHAIRMAN DEALE: All right. Let's go down to  
11 Item E of our agenda; that is reconsideration. And I think  
12 the words are fairly clear there that the SCANP had  
13 forwarded a group of interrogatories and requests for  
14 information to the Applicants sometime in September, if I  
15 recall, and the board turned down the application on the  
16 objection of the Applicants. And the matter was subsequently  
17 the subject of an appeal by SCANP, and in the Board's  
18 memorandum of November the 20th the Board, I'm speaking from  
19 memory now, basically sustained the position of this board,  
20 that is the appeal board basically sustained the position  
21 of this board, and noting that the Board had turned down  
22 SCANP's discovery attempt on the basis of its timeliness.  
23 And at that time the timeliness was related to projected  
24 hearings later on. Those were the hearings that had been  
25 ultimately canceled and which had been originally scheduled

1865 156

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1 in October and November. Now that those hearings in  
2 October and November are in the past, that is the question  
3 that the appeal board implies in its memorandum of November 20,  
4 is that the timeliness point of this board in sustaining  
5 the applicant's objection against SCANP has no further  
6 validity. Now, in view of our construction of what the  
7 appeal board has said, this raises the question of whether  
8 SCANP's Interrogatories and request for information about  
9 the Bechtel study might now be revived if SCANP so wishes.  
10 SCANP?

11 MR. LEED: Yes, we are still interested,  
12 Mr. Chairman.

13 CHAIRMAN DEALE: Mr. Thomsen, you've heard  
14 from SCANP, saying they're still interested in this  
15 discovery document that you received -- I think you may  
16 remember it, it is a fairly weighty document, and at that  
17 time the board sustained your objection, and then SCANP  
18 and its memorandum to the appeal board raised, among other  
19 points, our upholding of your objection. The appeal board  
20 went on to say that inasmuch as our decision was based on  
21 timeliness in the context of a hearing which was scheduled  
22 within a relatively short time, our decision was sustained.  
23 It left clearly the impression that timeliness was the  
24 critical reason for sustaining our decision. We can all  
25 look at the -- our decision and the appeal board's decision,

1 I think it comes out pretty much what I have said. Now,  
2 in view of this matter being reconsidered, there's no  
3 time limit set and I think it's fair to say if -- would you  
4 have any further objections to complying with that request  
5 for discovery?

6 MR. THOMSEN: My recollection is a little  
7 hazy on the substance of those lengthy questions, but  
8 from listening to Mr. Little here in my right ear our  
9 suggestion would be that we reopen discussions with Mr. Leed.  
10 In the past we have been able to agree on discovery matters  
11 with a few minor exceptions and I think we can perhaps  
12 solve that off the record here.

13 CHAIRMAN DEALE: Fine.

14 MR. THOMSEN: Some of the questions said  
15 "Go ye forth and do some new work," so we're going to  
16 probably stick with those kind of objections. Others we  
17 simply didn't understand or they were something, I don't  
18 know. But let us go over the great list of questions with  
19 Mr. Leed off the record and see if we can't reach 95 percent  
20 peace anyway. Since we do have time to turn to such matters.

21 CHAIRMAN DEALE: Well, the board would certainly  
22 appreciate your -- you and Mr. Leed working the board out of  
23 a job.

24 MR. THOMSEN: We'll try.

25 MR. LEED: I'm just a middleman, Mr. Chairman,

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1 it's Dr. Chaney and Mr. Thomsen I want to get together.

2 MR. THOMSEN: Well, it's Mr. Little and the  
3 Doctor ----

4 CHAIRMAN DEALE: Let's just stop while we're  
5 ahead.

6 MR. BLACK: Mr. Chairman, in that regard I would  
7 to get something clarified here, too. I have approached  
8 this with the various parties; I talked to Mr. Gendler for  
9 SCANP but SCANP still has some outstanding interrogatories  
10 to the Staff that are similar to the ones which the  
11 Applicant objected to. They're quite a lengthy list of  
12 Interrogatories to the Staff, I think they consist of over  
13 50 Interrogatories. We have not responded to those  
14 Interrogatories yet, but it was my opinion that they should  
15 be responded to because they seem to deal with certain of  
16 the matters that were at issue now and have been brought  
17 out by these -- the most recent USGS matters here:  
18 Seismic profile, recent field mapping, aeromagnetic  
19 interpretation -- it was my opinion that the staff should  
20 make a good-faith effort to respond to those Interrogatories.  
21 We still have not done so. And the reason we have not done  
22 so is that we have just not had sufficient manpower to do  
23 so; most of the responses have to lie with Mr. Whetten and  
24 he has not had the opportunity to do so; he's been out in  
25 the field. So, we have not done that. Now, my suggestion

1865 159

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1 to Mr. Gendler and to the Applicant was is that let's make  
2 a good faith effort to set up a new discovery schedule  
3 when the time becomes right to do so. Now, I think that  
4 perhaps what the USGS has requested, additional information  
5 to the Applicant, and if the Applicant does respond to  
6 those requests perhaps some of these interrogatories will  
7 fall by the wayside. I'm not positive that will happen  
8 but it's -- there is a good chance that it will. My  
9 suggestion to the parties was that when we do get further  
10 documents from the Applicant, we can set up a reasonable  
11 discovery schedule at the time that the Applicant submits  
12 its documents in response to the request for further  
13 information; then we can set up another discovery schedule  
14 to the staff when the staff issues its final report on  
15 geology, seismology matters, if that does happen. I think  
16 where SCANP -- what Mr. Gendler told me before that they  
17 were a little reluctant to agree to that because all of  
18 a sudden the documents were issued in the last go-round  
19 and all of a sudden we got into hearing schedule and  
20 objections came forward that they couldn't respond, the  
21 Interrogatories were untimely, what have you. I for one  
22 would not like to see that happen. I would like to see  
23 us all set up a reasonable discovery schedule; I'd like  
24 to have SCANP hold its Interrogatories in abeyance right  
25 now, reissue them if they felt they have not been responded



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1 to when the next round of applicant staff documents come  
 2 down. But mainly, try to work out between the parties  
 3 in the future a reasonable discovery schedule. And with  
 4 that request, I would request that the staff not be  
 5 required to respond to those SCANP Interrogatories now, but  
 6 realizing full well that they, when the staff documents and  
 7 the applicant documents come down again that they may be  
 8 propounded to us again. But I would like to see them  
 9 withdrawn at this point but subject to issuance again with  
 10 the understanding that we establish a reasonable discovery  
 11 period at a future date. I hope I stated it all but that's  
 12 our position now. I think that we can work it out but there  
 13 again I would not want be under a legal gun right now.  
 14 Even though the staff is never under a legal gun to  
 15 respond to interrogatories we usually try to do so, but  
 16 I would like to have SCANP say that they will hold those  
 17 in abeyance or what have you or withdrawn, subject to  
 18 submitting them again if they feel that it's needed.

19 CHAIRMAN DEALE: Mr. Leed, do you ----

20 MR. LEED: Mr. Chairman, it seems to me counsel  
 21 may be perhaps going beyond the relief that he needs in  
 22 describing various possible actions that we might take. I  
 23 think what I would propose to staff counsel is this: that  
 24 we will accede to any reasonable request for extension of  
 25 time to answer which the staff would presumably make based

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1 upon its own estimate of the timetable that it perceives  
2 applies to its workload. I would really rather leave it  
3 that way than withdraw and repropound and so on.

4 CHAIRMAN DEALE: Mr. Black?

5 MR. BLACK: Well, I'm not certain that will  
6 satisfy my problem in that it is perhaps the interrogatories  
7 that are now before us that the staff feels should be  
8 responded to. Perhaps our responses now will be different  
9 than what our responses will be a year from now, or whatever  
10 the time period is. And so my real problem is it seems  
11 like it's a waste of staff resources right now to respond  
12 to those knowing full well that the responses may be  
13 different after we get the applicant responses to the  
14 request for further information.

15 CHAIRMAN DEALE: Isn't this a matter of how  
16 you answer the question? I don't know, I'm asking that.  
17 If you're not sure of what your answer would be, say so,  
18 and then that throws the ball back to them on making another  
19 set of interrogatories. If you can't answer the question  
20 as of now -- this is a matter of working something up, but,  
21 my goodness, if you on the one hand say that the questions  
22 ought to be answered and you're ready and willing to go  
23 and Mr. Leed on the other hand says, well, I'd rather have  
24 it handled on the basis of a requested extension of time  
25 rather than the new set of questions later on, well, you

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1 could, it seems to me you have a couple of options there  
2 that could accomodate Mr. Leed's preference and not be  
3 really too much of a burden on you, but I don't want to try  
4 to tell you how to do the business.

5 MR. BLACK: Well, I think that Mr. Leed and I  
6 will be able to work it out. I guess we'll just give it  
7 our best efforts anyway.

8 CHAIRMAN DEALE: And then at this point, the  
9 Board hasn't had anything before it.

10 Don't think too much about that.

11 We go down to E, now we are down to F and F is  
12 any additional matters timely brought to the Board's attention  
13 which the Board deems worthy for inclusion in agenda. Well,  
14 I must say that if you have anything it better be good.

15 MR. SWANSON: Just one thing. Since we skipped  
16 over radon, I just wanted to mention on the record that I have  
17 distributed today copies to counsel for the parties as well  
18 as the Board, testimony that was sent out last Friday in  
19 the appeal board proceeding which is specifically considering  
20 the radon issue. The testimony does address the five specific  
21 issues that the Board requested be responded to in their  
22 November 99, 1979 order, and that hearing on the testimony  
23 is currently scheduled to begin on February 26th.

24 CHAIRMAN DEALE: Well, before the appeal board?

25 MR. SWANSON: Before the appeal board. It will

1865-163

1 probably last a couple of weeks. There is no definite date  
2 set yet for development of testimony on the health effects  
3 of radon. I might mention that the bottom line of the staff  
4 testimony is that radon releases are not significantly  
5 different from what was testified to in the Perkins proceeding.

6 CHAIRMAN DEALE: This is a matter for information?

7 MR. SWANSON: For information, yes.

8 CHAIRMAN DEALE: And similarly, the release  
9 which you have given us -- either I lost mine or mine is  
10 mixed up with one of my colleagues. But that information  
11 then is also a matter of information. This, this material?

12 MR. SWANSON: That is correct. I guess analagous  
13 to a Board notification type of thing. It is a matter of  
14 concern to this Board so I thought it was proper.

15 CHAIRMAN DEALE: Yes; no, no. Very good.  
16 I do not think there is any further comment we have to make  
17 on this radon distribution that you made.

18 MR. SWANSON: I am sorry --

19 CHAIRMAN DEALE: There is no further action that  
20 we should take with respect to this material and you are  
21 going to attend a two-week session before the appeal board  
22 and make a case summary.

23 MR. SWANSON: I think I will be otherwise  
24 occupied by TMI but --

25 CHAIRMAN DEALE: All right. Very good.

1 Well, that really concludes our agenda for  
2 the conference and it appears that we duplicated something  
3 that we did last year. We scheduled a conference for three  
4 days and we wound it up in the first day. With that kind  
5 of a track record I think that the further conferences  
6 that we might have ought to be scheduled for three days.

7 Let's take a ten-minute recess and we will pull  
8 together our thoughts before we wind up our conference.

9 (Whereupon a recess was taken for ten minutes.)  
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(After Recess)

1 CHAIRMAN DEALE: All right. Please come to  
2 order. Please come to order.

3 Mr. Linenberger has a question.

4 MR. LINENBERGER: Well, just to get various  
5 possible schedule milestones in mind, Mr. Thomsen, I was  
6 wondering if you have an estimate of approximately when you  
7 might expect a resolution on this declaratory judgment matter?

8 MR. THOMSEN: I really don't. Mr. Moser and I  
9 were just discussing that. The action is justifiable, but  
10 the parties haven't answered yet and I'm not that familiar  
11 with the trial court calendar situation in Thurston County.  
12 But, I really don't, but my -- you know, if I had to guess,  
13 I'd say five months, six months at the trial court level.  
14 What would you say, Tom?

15 MR. MOSER: If we get it disposed of on  
16 motions, which we suspect will happen, it could be, I was  
17 thinking more of eight-month period, I anticipate that if  
18 it's not dismissed on motions or disposed of on motions,  
19 that it will be years. And if it goes to the Supreme Court,  
20 we're talking about a length period of time.

21 The last time I had a case go up to the trial  
22 court, or -- last time I participated in a case it took  
23 four years to get to the Supreme Court.

24 MR. THOMSEN: I think we can beat that. I  
25 wouldn't be that pessimistic.

1865 166

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1 MR. MOSER: Well, judging by the appeal from  
2 the EFSEC hearings that are in the Supreme Court now, it's  
3 been four years, five years.

4 MR. THOMSEN: That action was commenced on  
5 January 5, 1977 and we should have a decision by this  
6 summer or next fall.

7 MR. MOSER: A mere three years.

8 MR. THOMSEN: A mere three years. And that  
9 was not really pushing it, so if we push it, I think maybe  
10 we can say two years, or a year and a half.

11 CHAIRMAN DEALE: We do better in Federal  
12 District Court in Washington.

13 MR. THOMSEN: It really hasn't gelled enough  
14 for us to make us to make good estimates.

15 CHAIRMAN DEALE: Gentlemen, we reviewed the  
16 conference among ourselves and we appreciate all of you  
17 attending and it looks now like we got about the right size  
18 room. There's nobody standing in the rear.

19 We think we made some movement so far as the  
20 Board is concerned. Certainly we have a better appreciation  
21 of the problems and, as I said before, we try to shoulder  
22 our responsibility for managing this unusual proceeding in  
23 an orderly fashion. We're very pleased to have maintained  
24 our record of scheduling a three-day hearing and being in  
25 a position to close the hearing on the first day. If you

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recall, we had done this in April of last year.

The Board will get out a release reflecting its understanding and direction that the proceeding will be scheduled to take. I don't think we have any further comments to make other than to say thank you.

So, the meeting is adjourned. The conference is adjourned.

(Whereupon, at 5:00 p.m., the conference was adjourned.)

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CERTIFICATE OF AUTHENTICATION

This is to certify that the attached conference before the Licensing Board in the matter of 50-522,523 in Room 1057, U. S. Customs Courthouse, U. S. Federal Office Building, Seattle, Washington on January 22, 1980 was held as herein appears, and that this is the original transcript thereof for the file of the Commission.

Noel T. Winter  
NOEL T. WINTER

Nina D. Dipolo  
NINA DIPALO

Diane L. Attleson  
DIANE ATTLESON

Ruth Kenney  
RUTH KENNEY

1865 169