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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION  
ATOMIC SAFETY AND LICENSING BOARD HEARING

In the Matter of  
U.S. Department of Energy  
High-Level waste Repository  
Docket No. 63-001-HLW  
ASLBP No. 09-892-HLW-CAB04

January 27, 2010

9:00 a.m. PST

TRANSCRIPT OF PROCEEDINGS  
Pre-Hearing Conference  
Before the Administrative Judges

CAB04

Judge Thomas Moore, Chairman

Judge Paul S. Ryerson

Judge Richard E. Wardwell

## 1 APPEARANCES

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## 1 P R O C E E D I N G S

2 Please be seated. We will resume with the oral  
3 arguments and we're on Issue No. 10. Mr. Malsch.

4 >> MR. MALSCH: Thank you very much, Judge  
5 Moore. Marty Malsch for the State of Nevada. Before  
6 I begin on Issue 10, I wonder if I could beg the  
7 Board's indulgence to call their attention to a  
8 technical fact bearing on issue 8. That's the  
9 defense's FEPs issue, which was called to my  
10 attention after the argument yesterday, so if I could  
11 only take a few seconds.

12 >> JUDGE MOORE: Go ahead.

13 >> MR. MALSCH: There was a discussion with  
14 regard to issue 8 regarding the possible equivalency  
15 between a neutralization analysis and a FEPs  
16 analysis. The additional fact was called to my  
17 attention is this and that is that in a  
18 neutralization analysis, you were doing a basically a  
19 conditional analysis in which the drip shield effect  
20 of it is felt in an unmitigated fashion on the  
21 ultimate dose calculation. In a FEPs calculation,  
22 though, if you were examining a FEP, which leads to,  
23 let's say, the total failure of all drip shields, the  
24 effect of that failure, the ultimate calculation is  
25 mitigated by the probable FEP in the first place.

1           So, for example, imagine an igneous scenario  
2 which leads to the total failure of all waste  
3 packages, that would be felt in the ultimate  
4 calculation, but it would be discount by something on  
5 the order of a tenth of a minus 8 because you take  
6 into account the probability of the FEP in the first  
7 place. That was called to my attention after the  
8 argument, I thought it was important to tell the  
9 Board about this.

10           >> JUDGE MOORE: Thank you. Proceed.

11           >> MR. MALSCH: Issue 10 deals with DOE's drip  
12 shield installation schedule and what we believe is  
13 a -- a very visual and unique issue which it poses.  
14 DOE will not install its drip shields until the end  
15 of the 100 year --

16           >> JUDGE WALDWELL: Can I interrupt you right  
17 off the bat?

18           I remember when I was in graduate  
19 school,. Campadre in my room had a sign above his  
20 desk "this is a problem I'm solving, a simple  
21 equasion." It always got him focused again. For 10,  
22 I am not sure of the problem we are trying to solve.  
23 What is your opinion of what is the legal question  
24 before us with this?

25           And can you enlighten me on how it became

1 designated as a legal question?

2 Because I'm confused on how it did also.

3 I don't see it in your previous contentions,  
4 itself, when we're dealing with 162 nor can I really  
5 ascertain where it came from.

6 I've read where it's alluded to the Board that,  
7 omitted the contention, but I couldn't find that  
8 either. And I just need to be steered if you can  
9 help me with that before we get into any of your  
10 other details, if we could.

11 >> MR. MALSCH: Sure, I'd be happy to do that.

12 Our condition 10, if I recall, said because of  
13 DOE's delay of installation of a drip shield until  
14 the end of the 100-year period, post -- predisclosure  
15 period. After all, the 11,000 or so waste packages  
16 containing the wastes that have been in place, that  
17 that could not possibly be justified as safe. I  
18 think that's the essence of our contention.

19 The legal issue here today is -- is -- what I  
20 would call a subset of that, and that is that it  
21 cannot be legally justified as safe because by virtue  
22 of the schedule, a safety finding, which the  
23 regulations require be made before a license is  
24 issued to receive and in place wastes cannot possibly  
25 be made. I think that dovetails in with the -- with

1 the contention as written.

2 >> JUDGE RYERSON: Was 161, Nevada Safety 162  
3 admitted as a legal issue contention?

4 >> MR. MALSCH: No, it was not contention  
5 admitted legally as --

6 >> JUDGE WALDWELL: Nor did you have questions  
7 associated with it?

8 >> MR. MALSCH: That is true. That is true.

9 >> JUDGE WARDWELL: And when did this come up as  
10 a subset, this schedule? I see now what you are  
11 driving at with regards to the scheduled portion of  
12 it.

13 Can you enlighten us on when and who and how  
14 this rose up to the level it has?

15 >> MR. MALSCH: I'm trying to remember when we  
16 very first raised the issue. We certainly raised it  
17 in connection with the negotiation and discussion of  
18 the legal issues; but we had raised it earlier -- and  
19 I'm trying to recall and I don't know whether we  
20 raised it in our reply or not. I'm sorry, I don't  
21 recall.

22 >> JUDGE WARDWELL: And to the best of your  
23 knowledge, the Board that admitted this -- the Board  
24 that was dealing with this, there was nothing in our  
25 Board Order that admitted it as a legal contention

1 when we admitted contentions?

2 >> MR. MALSCH: You didn't designate it as a  
3 legal contention, really, one way or the other, that  
4 is correct.

5 >> JUDGE WARDWELL: I'm encouraged, I'm not  
6 completely --

7 >> MR. MALSCH: You are not.

8 >> JUDGE WARDWELL: I am partially eluded, but  
9 not completely.

10 >> MR. MALSCH: In any event, the premise for  
11 the legal question is precisely this, if DOE will not  
12 install its drip shields until after all 11,000 waste  
13 packages containing 70,000 metric tons of waste have  
14 been in place; and, thus, systems and structures  
15 necessary for disposal safety of the drip shields  
16 have been in place will not be installed until many  
17 years after the radiological hazards with which they  
18 were designed to address have already been  
19 introduced.

20 As I said, this is a very unusual -- very  
21 unusual proposal. Commission policy and practice has  
22 always been that a safety finding must be made before  
23 any actual radiological hazards are introduced, not  
24 afterwards. That's why case-specific licenses are  
25 required in the first place. And that where complex



1 facilities are involved -- and certainly this is a  
2 complex facility -- that safety finding required  
3 before the hazards are introduced always includes a  
4 finding that all of the systems and components  
5 necessary for safety have been properly fabricated  
6 and installed.

7 For example, you see that for faux power reactor  
8 licenses in 50, in 57 (a) (1) you see that for low  
9 power instances under Part 50, that's in 50.57 (c)  
10 and for some materials licenses, for example,  
11 plutonium processing facilities under 70.23 (a) (a).

12 So the issue here is whether Part 63  
13 incorporates that same policy. If so, exactly how  
14 does it incorporate that policy; and if it does, are  
15 we required to do anything about it at all at this  
16 particular stage in the licensing proceeding?

17 >> JUDGE WARDWELL: The policy you are referring  
18 to in regards to the other licenses, is that -- is  
19 that merely a policy or is it truly a regulation that  
20 says, that thou shall not -- that there shall be a  
21 safety finding prior to any radiological impact means  
22 installed?

23 >> MR. MALSCH: Yes, in the three regulations  
24 that I cited, no license can be issued until that  
25 finding is made -- and that even applies to a low

1 power license, for example.

2 The regulations I cited, we believe that Part 63  
3 is consistent with this longstanding policy and  
4 practice. 63.41 (a) (2) requires that before wastes  
5 may be received or replaced in a repository, the NRC  
6 must find, quote, "That the construction of any  
7 underground storage place required for initial  
8 operation is substantially complete in conformity  
9 with the act and the application in the regulations."  
10 The wording is a bit awkward, but it must mean that  
11 satisfactory completion of any underground storage  
12 space required for an initial operation must mean  
13 satisfactory completion of whatever safety features  
14 are necessary for adequate isolation of the wastes  
15 that will be in placed as a part of the initial  
16 operation. And in our case, that finding cannot be  
17 made, because all of the wastes will be in place  
18 before a single drip shield is installed.

19 >> JUDGE WARDWELL: When will -- when will the  
20 receive and possession license be needed in order to  
21 start receiving the wastes?

22 >> MR. MALSCH: It would be needed before any  
23 wastes could be received on the site.

24 >> JUDGE WARDWELL: What I mean is regards to  
25 construction starts, constructional license granted,

1 construction starts -- it takes 100 years to complete  
2 all the -- all the tunnel drifts, as I understand it,  
3 or approximately; but at that same time,  
4 wastes -- there is a plan to -- at the -- as a  
5 companion activity start putting wastes in some of  
6 those drips already completed; is that not correct?

7 >> MR. MALSCH: That -- that is correct.

8 >> JUDGE WARDWELL: And receive and possession  
9 license would be needed for that activity; would it  
10 not?

11 >> MR. MALSCH: That is correct.

12 >> JUDGE WARDWELL: And approximately about  
13 how -- do you remember how much lag time there is?  
14 How many drips have to be constructed before they're  
15 going to start the companion, the dual duplicative --  
16 not duplicative but the parallel -- duplicative or  
17 parallel activities at the site?

18 >> MR. MALSCH: I don't know. I mean, I'm not  
19 sure. it's a fairly long period. I don't know  
20 exactly how long it is. All right. Now, DOE -- .

21 >> JUDGE MOORE: The waste will arrive on the  
22 GROA years in advance to be in place underground.

23 >> MR. MALSCH: Well, some years in advance. I  
24 presume they could commence construction of the  
25 underground facility as soon as they receive the

1 construction authorization and, in theory, they would  
2 be poised to begin in placing wastes very shortly  
3 after the above-ground infrastructure was available  
4 to allow that to be done. That would be in the very  
5 beginning, but I don't know how long the actual  
6 replacement operations would last.

7 Now, DOE's staff tell us that there's no problem  
8 here, because, first of all, they say, all that is  
9 required by way of a finding is a finding  
10 that -- that the construction of underground storage  
11 space has been completed. And I would submit,  
12 that's -- that's a silly meaning of the regulations.  
13 Obviously, what the Commission had in mind is not  
14 only adequate completion of the space, but also  
15 adequate completion of whatever facilities in the  
16 space are necessary for safety.

17 For example, this would now include not only  
18 disposal safety but in placement safety. For  
19 example, this staff would be very interested, the  
20 Commission would be very interested in the safety of  
21 tunnel support or rails for in placing wastes or  
22 waste monitoring equipment, that would all be a part  
23 of this finding. So satisfactory completion of the  
24 space must be also satisfactory completion of  
25 necessary structured systems and components in this

1 space.

2 Well, then the next response is, well, but, no,  
3 the only finding is that structured systems  
4 components necessary for initial operation are  
5 completed and we need not concern ourselves with the  
6 drip shields because they will not be in stored as a  
7 part of the initial operation. And that is true in  
8 any temporal sense; but in a more meaningful sense, I  
9 think the regulation has to be read to say that as  
10 the -- as the wastes are in place in the tunnels, one  
11 should be sure that there is completed construction  
12 of whatever safety features are necessary to assure  
13 that those wastes that are being in placed, in the  
14 initial operations will be in place with adequate  
15 disposal safety. And, in fact, the regulatory  
16 history suggests of this initial operations, suggests  
17 it was added not to avoid having to address some  
18 safety question, but purely to allow DOE to begin  
19 disposal operations without excavating the entire  
20 repository drifts. So they can begin with just one  
21 tunnel. They wouldn't have to construct all the  
22 tunnels; but that doesn't necessarily excuse them  
23 from having necessary structure systems and  
24 components for disposal safety in place.

25 >> JUDGE RYERSON: But if 162 was admitted as a

1 fact, as a factual contention and I guess I'm not  
2 quite clear how the legal issue, particularly as it's  
3 been framed here, how that necessarily advances or  
4 doesn't advance the ball. I -- this is the issue as  
5 it was agreed upon by the parties, I take it, and if  
6 we had an opportunity in our Order to modify it and  
7 we didn't avail ourselves of that opportunity; but as  
8 I look at it, I find it a little confusing. I think  
9 the issue we are arguing, and tell me if this is  
10 correct, is basically whether as a matter of law it's  
11 impossible for the Commission to make the required  
12 findings to issue a construction authorization in  
13 light of the drip shield installation plan? I mean,  
14 is that essentially the issue?

15 >> MR. MALSCH: That's a fair statement of the  
16 issue.

17 >> JUDGE RYERSON: Why is that an issue of law  
18 as opposed to an issue of fact to be adjudicated?

19 >> MR. MALSCH: Well, I think -- I think if you  
20 read the regulations the way we read them.

21 The impossibility arises as a matter of law not  
22 as a matter of fact, once you accept the factual  
23 premise, that there will be no drip shields in place  
24 until after all the wastes are in placed in the  
25 tunnels. I think that's the factual premise. I

1 believe that's what the application provides. I  
2 think once that's the premise, I think our argument  
3 flows from that.

4 >> JUDGE RYERSON: But the substantial  
5 completion section is not -- is only indirectly  
6 relevant, I take it, at the constructional  
7 authorization phase? I mean, we can't have  
8 substantial completion before a construction  
9 authorization?

10 So it's -- it's simply in anticipation of  
11 whether that would be possible, which strikes me as  
12 more of a fact question.

13 >> MR. MALSCH: Well, I don't think it's a fact  
14 question, if what you are talking about is a legal  
15 certainty that a safety finding cannot be made at  
16 the operating license stage. I mean, I agree with  
17 you, in ordinary circumstances, one would not be  
18 concerned about that as the construction at the  
19 construction authorization stage. There is no  
20 construction to address; but if you know now at the  
21 construction authorization stage, that because of the  
22 schedule, a finding required for operation cannot  
23 possibly be made, then we would say it would be  
24 irrational not to take it into account now before DOE  
25 gets its license. Because otherwise the results

1 would be DOE could commence construction of the  
2 repository only to be told by the NRC five years  
3 later, sorry, we can't give you a license and ha-ha,  
4 we knew that all along. I mean, that's irrational.

5 If this is the problem we think it is, it has to  
6 be addressed now and it can't be postponed until  
7 later. But it did occur to me, there is a factual  
8 issue that is associated with this issue and that is  
9 NEI contends that the drip shields are not necessary.  
10 So if NEI were to prevail on that contention then,  
11 then we don't need the drip shields. We wouldn't  
12 need to make any finding amount about satisfaction of  
13 the completion of the drip shields. And the issue I  
14 guess is effectively removed. So that issue would  
15 remain, no matter what one, what the Board did with  
16 this particular issue; although, if the Board decided  
17 this issue in our favor, then NEI's contention would  
18 be a very important contention.

19 >> JUDGE RYERSON: Yeah. Well, I guess that's  
20 my concern. You're asking us to decide, as a matter  
21 of law, what might be the fact question five years  
22 down the road. If NEI were to prevail, for example,  
23 then, as a matter of law, the finding could be made,  
24 could it not, of substantial completion if the drip  
25 shields were turned out not to be necessary,



1 hypothetically?

2 >> MR. MALSCH: Well, I agree with that, except  
3 we are dealing with the application as filed. And we  
4 filed contentions, if the application is filed. I  
5 think giups need to be made based upon the  
6 application as filed; and the application as filed  
7 has drip shields.

8 Now, if in response to some reconsideration, the  
9 DOE may want to undertake either after consideration  
10 of the NEI contention or otherwise, they want to  
11 either amend the drip shield installation schedule so  
12 drip shields are installed as the wastes are in  
13 placed or they want to do away with it altogether,  
14 well, then they'd have to file an application, an  
15 amendment to the license application and we would  
16 deal with it then; but for now, we're -- we're  
17 dealing with the application as it stands.

18 >> JUDGE MOORE: Mr. Malsch, if -- as DOE  
19 states -- the drip shield is a component part of the  
20 waste package engineered barrier, then it can't  
21 possibly be installed until the other components of  
22 the waste package engineer barrier are installed, but  
23 if it is looked at, as DOE proposes, that it is one  
24 engineered barrier, one system with subcomponents,  
25 then that initial waste package has to be in place

1 before you could put the drip shields in. Aren't you  
2 looking, especially with regard to your argument  
3 about what the word "space" in 63 -- I believe  
4 it's -- 41 means? It's a physical impossibility  
5 under their definitions to put the drip shield in  
6 before you put the waste in place?

7 >> MR. MALSCH: Well, I think the time  
8 difference is in that respect almost trivial. I  
9 mean, you -- you would be installing the waste  
10 package and the drip shield almost simultaneously. I  
11 don't see why things can't be engineered in that  
12 manner. And if that's the way it's done, then the  
13 finding would be made, there wouldn't be any problem.

14 >> JUDGE MOORE: Why isn't it being done that  
15 way?

16 >> MR. MALSCH: Because DOE is proposing to  
17 install all of the waste packages before installing  
18 any single one of the drip shields.

19 >> JUDGE WARDWELL: And -- and the reason for  
20 that, is it not, is to maintain ability for  
21 retrieval, exactly, if I recall?

22 >> MR. MALSCH: I don't know what the reason is.

23 >> JUDGE WARDWELL: Right now, the drip shields  
24 will not be installed. They'll be installed all at  
25 once after all the waste packages are installed, even

1    though waste packages will be installed sequentially  
2    while other drifts are being excavated.

3           >> MR. MALSCH:   Right.   Right.

4           >> JUDGE WARDWELL:   Something you said may have  
5    confused me a little.   Is it your position now, there  
6    are no factual issues left in 162?

7           >> MR. MALSCH:   Not if the Commission decides  
8    this issue in our favor.   I think if they decide this  
9    issue against us, I'm not sure if it would remain a  
10   factual issue other than NEI contention.   But I think  
11   it would be an important policy question for the  
12   Commission to address as to whether they would want  
13   to NEI to contemplate this highly unusual situation.  
14   I mean, for example, if the Board should decide that,  
15   yes, we agree that it would be an impossibility of  
16   making this operating license finding but because of  
17   the two-stage licensing process, it isn't necessary  
18   to look at that now.   I think the Commission might  
19   want to look at that even as a policy matter and  
20   decide whether that makes any sense.   I mean, among  
21   other things we have discussed in our Briefs, DOE's  
22   suggestion that this matter could be handled by a  
23   license condition; that is to say, you don't have a  
24   license to receive and possess would be issued on  
25   condition that all of the 11,000 drip shields would

1 be installed 100 years from now. And we raised I  
2 think what is the very important question of exactly  
3 what would be the effect of such a license condition?

4 I mean, if the -- if the great, great, great  
5 grandson of the current NRC inspector of Yucca  
6 Mountain were to inspect the site prior to site  
7 closure and happen to notice there were no drip  
8 shields and ask the DOE official on site, you know,  
9 "What's going on here?" And was told, "We're really,  
10 really, really sorry, we had every intention of  
11 installing them. It turned out we just couldn't."  
12 What would the NRC be in a position to do now with  
13 all the waste packages in place?

14 I mean, in theory, we -- obviously, a civil  
15 penalty would do no good. It would simply pass  
16 treasury monies from the treasury to DOE to NRC back  
17 to the treasury. It wouldn't address a safety  
18 problem. NRC's ability to enforce license conditions  
19 is rooted upon its fundamental authority to revoke  
20 licenses and to order divestiture of the materials.  
21 In this case, that would mean orderly retrieval. But  
22 as we pointed out in our Briefs, that would be a very  
23 difficult order to issue because it would entail a  
24 balancing of the risks to workers and maybe others  
25 associated with the retrieval operations associated

1 with the risks to the citizens of Nevada with a  
2 repository with no drip shields and possibly in  
3 violation of the EPA standards. I don't know what  
4 the outcome would be of that; but it could be that  
5 Nevada is stuck with a repository that's in violation  
6 of the EPA -- EPA rules. So I don't think the  
7 license condition which -- which DOE has proposed is  
8 by any means a satisfactory answer to this problem.  
9 I think this is a real serious problem with DOE's  
10 proposal. I think it should be addressed now,  
11 because, otherwise, what is the purpose of a  
12 construction authorization proceeding if not to  
13 examine the possibility of real serious problems with  
14 preventing an operating license from being issued in  
15 the first place. So it is no answer to say, oh, this  
16 is just a two-stage licensing process.

17 >> JUDGE MOORE: What happens to NEI's  
18 contention if your position were accepted?

19 >> MR. MALSCH: Well, if our position were  
20 accepted, that would be the law of the case. Then we  
21 could -- if NEI presumably wishes to go forward --  
22 litigate that issue. In which case I suppose it  
23 would be moot. If DOE then also filed an amendment  
24 to its license application which, if given, no  
25 indication it would do so. So I think we have to

1 deal with the application as it is currently filed  
2 and that is with the drip shield installation  
3 schedule as is currently filed. Even if DOE should  
4 prevail in its -- in its contention, that doesn't  
5 require the DOE to amend its license application. It  
6 could still go forward on the drip shields. If it  
7 amended the license application to eliminate the drip  
8 shields or to install them as the wastes were in  
9 place, then that would effectively moot this issue;  
10 but it hasn't done so or given any indication that it  
11 would.

12 >> JUDGE WARDWELL: It's my understanding DOE  
13 doesn't exactly agree with your legal  
14 interpret -- your definition of the legal issue in  
15 this contention; is that correct?

16 >> MR. MALSCH: I think we have a disagreement  
17 as to whether it's in the scope of the contention.

18 >> JUDGE MOORE: Okay. Well, we'll ask them as  
19 they come up for their opinions. Thank you, Mr.  
20 Malsch.

21 >> MR. MALSCH: Thank you.

22 >> MR. SILVERMAN: It's still morning. good  
23 morning, Your Honor.

24 Don Silverman with the Department of Energy.  
25 Before we get into our Petition and my responses to

1 Mr. Malsch, I want to go to the specific question  
2 that Judge Wardwell asked at the beginning and I  
3 think Judge Ryerson followed up on with, which is:  
4 What is the legal question?

5 What's the problem?

6 And where did this all come from?

7 And in particular, I think you were a little  
8 befuddled -- correct me if I'm wrong -- with respect  
9 to the fact that you didn't see a clear relationship  
10 to the legal issue in the contention and I would just  
11 like to make clear, we did not agree to this language  
12 in this contention. We worked very closely with  
13 Nevada and agreed on almost every single contention;  
14 but in this particular one, when we filed our joint  
15 stipulation with the Board, we specifically said  
16 Nevada and DOE disagreed with respect to the nature  
17 of this legal issue, raised in this contention and  
18 we'll file separate views. We filed separate views.

19 The essence of those separate views were, Nevada  
20 is arguing that the pre-operational findings that are  
21 required by 63.41 (a) need to be addressed now. And  
22 our objection was that 63.41 (a) -- and that  
23 requirement didn't appear in the contention at all.  
24 And the Boards, for whatever reason, made the  
25 judgment to admit this legal issue as a legal

1 issue -- admit might be -- to have us argue this  
2 legal issue as it is written today, which was the way  
3 it was proposed by the State of Nevada. So I just  
4 want to clarify, we did not believe this was an  
5 appropriate interpretation, that this did not flow  
6 logically from the contention, and particularly  
7 because this -- the very regulation that's at the  
8 essence of their argument wasn't even mentioned in  
9 the contention. I did want to point that out.

10 Our main response to Mr. Malsch is -- is really  
11 three-phased. The first is, we have plain language  
12 in these regulations -- our basic position is, we are  
13 not required to make this pre-operational finding  
14 that construction of the underground storage space  
15 is -- that the 63.41 (a) finding, the construction  
16 underground facility has substantially been completed  
17 at this time. These regulations, the structure and  
18 language is clear. There are -- there is a  
19 regulation which specifies findings to be made at the  
20 construction authorization stage. That is in 63.31  
21 (a) (2). Those are the ones that we have to be  
22 focusing on.

23 There is a separate regulation that specifies  
24 findings to be made at the possession and use stage.  
25 That is 63.41 (a), not mentioned in the contention,



1 but very clear in the regulations. There are two  
2 different regulations, they're established for two  
3 different stages of the license proceeding; and if  
4 NRC had wanted us to import into this current  
5 proceeding the criteria for issuance of a license to  
6 possess and use, we believe they would have done  
7 that. So as a matter of plain language of the  
8 regulations and the structure of the regulations, we  
9 don't think that's appropriate and consistent with  
10 the regulations.

11 Furthermore, with respect -- secondly, with  
12 respect to the language of the regulations, if you do  
13 look at 63.41 (a), which is the pre-operational  
14 findings, it defines what that finding is. That the  
15 facility has been substantially completed in  
16 accordance with the application. And it does that --  
17 defines, it says absolutely modifies that, defines  
18 it, says the construction is considered to be quote  
19 "substantially complete if the underground storage  
20 space required for an initial operation is  
21 substantially complete."

22 Our position is the space, it is -- it should be  
23 defined in an ordinary definition. The Commission  
24 could have said, construction is considered to be  
25 substantially complete if the underground storage

1 facility was substantially completed, if the  
2 underground facility and equipment was substantially  
3 completed, if the underground facility and engineer  
4 barriers were substantially completed. But they  
5 didn't do that; they said "space". And, furthermore,  
6 they modified the phrase further with the phrase  
7 required for initial operation; and if you look at  
8 the regulations, the conceptual regulation, 63.102  
9 (c), it defines three periods of operation and there  
10 is an initial period of operation, which is the  
11 period of in placement. That's one of the three  
12 defined phases. The drip shields are not required  
13 for that phase, for that phase of the process. The  
14 drip shields are a protection measure. They are a  
15 part of the post-closure safety case.

16 So, for that reason as well, we think the plain  
17 language does not support Nevada's position.

18 Mr. Malsch suggests there is a safety issue  
19 here. And he suggests -- doesn't suggest -- states  
20 that there is a definitive safety finding to be made  
21 at this particular time, and I want to respond to  
22 those points.

23 First of all, with respect to the -- whether  
24 there is is a safety issue, we don't believe there is  
25 one for several reasons.

1           First of all, the application makes clear that  
2 there will be some drip shields, a small number,  
3 installed early in the "in placement" process for  
4 purposes of the performance confirmation program. So  
5 there will be analyses done and scientific  
6 studies -- analyses done and scientific studies done  
7 to see how well these drip shields perform.

8           Secondly, the NRC still has to determine based  
9 upon the license application that the drip shields  
10 can be installed in accordance with our commitments  
11 and can confirm adequate installation before closure,  
12 before the time when these drip shields are needed to  
13 perform their function, and that would be as part of  
14 a closure amendment. There is a specific proceeding  
15 for an amendment application to close the facility.  
16 That's in Section 63.51.

17           Third, we have the requirement to preserve the  
18 ability to retrieve the wastes through the repository  
19 design prior to permanent closure. If we meet that  
20 obligation to the satisfaction of the agency, in my  
21 view, that obviates the safety issue and, in fact,  
22 Nevada essentially acknowledges that last point on  
23 safety, on Page 862 of its actual contention.

24           With respect to the notion and Mr. Malsch did  
25 not address there today, a definitive disposal

1 finding to be made today or in connection with this  
2 construction application, it's a misreading of the  
3 regulations. There are multiple important safety  
4 findings to be made; and they are made at different  
5 stages of the process. There is the 63.21 finding to  
6 be made with respect to the construction  
7 authorization. There is the 63 -- I'm sorry, the  
8 63.31, reasonable expectation finding. There is a  
9 finding before possession and use. It's in section  
10 63.41. And it requires the NRC to find that our  
11 activities will be in conformance with the LA, the  
12 Atomic Energy Act, the regulations; and there will  
13 be -- there will not constitute an unreasonable risk  
14 to public health and safety, more than broad enough  
15 language to encompass the findings that need to be  
16 made at that point.

17 More on point is the provisions governing the  
18 permanent closure amendment, because that is when the  
19 drip shields come into play. And the regulations  
20 that govern the findings to be made there at that  
21 point in time are in Section 63.45 and Section 63.51;  
22 and the regulations say that the Commission will make  
23 the same determinations that quote "govern the  
24 issuance of the initial license and any other  
25 information bearing on permanent closure, i.e., such

1 as, the adequacy of the drip shields to perform their  
2 function that was not available at the time the  
3 license was issued."

4 We need that fits perfectly, those are all in  
5 the regulatory scheme. And as I said earlier, I  
6 think the waste retrieval provisions and the  
7 obligation to preserve the option of retrieval,  
8 largely dispose of any significant safety issue.

9 Just bear with me a minute. Those are my major  
10 comments, but I would like to look over the points  
11 that Mr. Malsch made. He did say this was a very  
12 unusual proposal, the notion of installing the drip  
13 shields not until after all the waste is installed  
14 and after the adequate safety finding, it would be  
15 too late to make that finding.

16 As I pointed out, there is a permanent closure  
17 amendment findings to be made and I think that  
18 demonstrates that that's a faulty assumption. And  
19 again, I want to remind the Board, it's not an  
20 unusual proposal. Because the drip shields are  
21 intended -- they're a part of the post-closure case.  
22 They're a part of the post-closure safety and  
23 amendment findings.

24 >> JUDGE WARDWELL: Can we address that for a  
25 minute?

1 >> MR. SILVERMAN: Sure.

2 >> JUDGE WARDWELL: Mr. Malsch pointed out  
3 that -- are you aware, let me strike that --

4 Let me ask this: Are you aware of any other  
5 license that the NRC grants where it's permissible to  
6 put in radioactive materials before any of the  
7 containment or controls or needs to protect and  
8 provide for the health and safety of the public are  
9 installed?

10 >> MR. SILVERMAN: Let me -- I think the premise  
11 of your question, with all due respect, is: It was  
12 not correct, for any other facility.

13 >> JUDGE WARDWELL: It had no premise.

14 >> MR. SILVERMAN: Well, the premise is -- the  
15 premise is that that you are putting waste in before  
16 you have certain controls or protections in place to  
17 insure the safety of it.

18 >> JUDGE WARDWELL: To meet the safety of the  
19 people. The drip shields are relied upon in order to  
20 meet safety findings; is that correct?

21 >> MR. SILVERMAN: Yes.

22 >> JUDGE WARDWELL: Are there any other  
23 licenses, that you are aware of, where a system  
24 structure component that is relied upon for safety is  
25 allowed to be installed after the radioactivity has

1 been entered into that?

2 >> MR. SILVERMAN: I'm not. But there is --  
3 this is my point. There is a fundamental difference  
4 between this repository and any other licensed  
5 facility.

6 >> JUDGE WARDWELL: But that's my second  
7 question. Is there anything different that allows  
8 you to?

9 THE WITNESS: Yeah, there sure is. This is a  
10 permanent repository and the safety findings that  
11 have to be made are that this waste can be disposed  
12 of safely and held in the repository for a million  
13 years. In -- and so the drip shields are a component  
14 of the safety case to be made, to demonstrate that  
15 this stuff can stay there forever.

16 All right. That is very, very different from  
17 any other proceeding I can think of where there is,  
18 I'm -- any other facility I'm aware of where at least  
19 the initial intent is not to leave the waste in  
20 place. It's to have the waste -- it's to have the  
21 radioactive material come on the site, operate with  
22 it, and then the envisioned -- envisioned intent  
23 would be to remove it pursuant to a decommissioning  
24 plan or possibly to leave it in place pursuant to a  
25 decommissioning plan; but you wouldn't know that

1 until much later. It's very different.

2 >> JUDGE WARDWELL: But the main purpose of this  
3 is for permanent disposal? There is only an option  
4 for retrieval that must be maintained?

5 >> MR. SILVERMAN: That's correct.

6 >> JUDGE WARDWELL: Is there an operational  
7 license granted for this facility?

8 >> MR. SILVERMAN: Essentially, yes, sure. It's  
9 the receive and possess license.

10 >> JUDGE WARDWELL: Why isn't it called an  
11 operational license?

12 >> MR. SILVERMAN: It's not called an  
13 operational -- operating license, because that term  
14 is only used in Part 50 and perhaps Part 52 because  
15 of -- under the Atomic Energy Act -- and it's I think  
16 it's more form over substance really, but what you  
17 have is the licensing of a facility for when you are  
18 dealing with a reactor, and you're licensing of the  
19 construction of the facility, then you get an  
20 operating license to operate the facility. There is  
21 not much difference really practically between that  
22 and almost every other licensed facility where you  
23 have -- rather than a license to operate -- a license  
24 to receive and possess. It's effectively the same  
25 thing.



1 >> JUDGE WARDWELL: Well, couldn't one not argue  
2 that the post-closure period is really the  
3 operational period of this facility, because this is  
4 what the facility is designated for?

5 It's not a -- it's not a -- a -- a decommission  
6 unit and reclamation process, but this facility is  
7 designed for long-term storage of this?

8 That is the operations of it; could one not  
9 argue that?

10 >> MR. SILVERMAN: No, I think one could argue  
11 that's part of the operations.

12 >> JUDGE WARDWELL: Sure.

13 >> MR. SILVERMAN: And there are findings to be  
14 made before the possession and receipt and  
15 above-ground operations, "in placement" period, and  
16 all that period up to permanent closure, there is a  
17 regulation that governs that. That's a part of the  
18 operations period. And then we have the other part  
19 of the operations period which is post -- which is  
20 closure and post-closure, and there are findings to  
21 be made there.

22 >> JUDGE WARDWELL: So, if, in fact, it could be  
23 a part of the operations, then the statement at 41  
24 (a)(2), that talks about initial operations, one  
25 could have designated these drip shields as part of

1 the engineered barrier system that we're going to put  
2 in place prior to putting in place any waste material  
3 underground as a logical way to do it?

4 If there was not -- unless there is some other  
5 reason not to -- why aren't the drip shields placed  
6 right after the waste is put in place?

7 >> MR. SILVERMAN: My understanding -- and there  
8 may be other reasons, and I'll get corrected if I'm  
9 wrong -- but I think it was alluded to earlier, is at  
10 least one reason is that it will aid in the ability  
11 to retrieve the waste prior to permanent closure by  
12 not having the drip shields installed, and I need to  
13 find out if that's completely accurate.

14 >> JUDGE WARDWELL: It was a blank stare.  
15 That's my impression also. But could not the drip  
16 shields be redesigned so that you could still achieve  
17 retrieval without that, i.e., the drips made bigger,  
18 the drip shield's clearance is less?

19 >> MR. SILVERMAN: That depends. It's possible.

20 >> JUDGE WARDWELL: Is there any reason to  
21 believe you couldn't? Correct?

22 >> MR. SILVERMAN: There may be -- there may be  
23 not. There may be significant impediments to doing  
24 it, but the Department's obligation so, to propose a  
25 design that meets the regulations -- and there is a

1 specific recognition by the Commission that the NRC  
2 is not to evaluate alternative designs other than  
3 those proffered by the Department. If it fails the  
4 appropriate regulatory criteria, it fails and the  
5 license is an issue or there is conditions or  
6 whatever, but --there is one design to be evaluated.

7 >> JUDGE WARDWELL: Let me finish up with one --  
8 the key question that I've got here or the scenario  
9 that I'm developing in my mind is that is -- it seems  
10 logical to me that you would want to have all your  
11 systems in place prior to introducing radioactivity.  
12 It just seems logical.

13 Would not -- even if this fails as a legal  
14 issue, some of the things we've just talked about are  
15 really factual types of discussions, not legal  
16 discussions at all.

17 >> MR. SILVERMAN: Mm-hmm.

18 >> JUDGE WARDWELL: And there's valid points  
19 that you've raised in regards to the questions I  
20 have; but they're really to the merits issues, as I  
21 see them. Do you see any reason why 162 doesn't  
22 survive as a factual contention regardless of the  
23 outcome of the legal aspects associated with this  
24 contention?

25 >> MR. SILVERMAN: I think it does potentially

1 survive in a somewhat constrained way. I think if  
2 you find in our favor that the pre-operational  
3 findings are not required at this stage and obviously  
4 that particular regulation -- which isn't mentioned  
5 in the contention at all -- can't be a basis for the  
6 factual arguments that are made by the State of  
7 Nevada.

8       However, the contention, as written, did  
9 identify a number of other regulations and argues  
10 that our plan violates those regulations; and I think  
11 that would be a potential factual issue that would  
12 survive.

13       >> JUDGE WARDWELL: Thank you.

14       >> JUDGE MOORE: Thank you, Mr. Silverman.

15       >> MR. SILVERMAN: Thank you.

16       >> JUDGE MOORE: NRC staff.

17       >> MR. GENDELMAN: Good morning, Your Honor,  
18 Adam Gendelman for the NRC staff. The Board should  
19 not impute Section 63.41 --

20       >> JUDGE WARDWELL: May I interrupt? I already  
21 have.

22       >> MR. GENDELMAN: You may.

23       >> JUDGE WARDWELL: So I want to get my focus on  
24 here. Would you mind if I need your interpretation  
25 of what the legal question we had before us is?

1 >> MR. GENDELMAN: Yes, Your Honor. The staff  
2 understanding is that because Nevada believes that  
3 the license application as submitted cannot satisfy  
4 Section 63.41, the license receive and possess  
5 requirement, that it, therefore, would not be logical  
6 to issue a construction authorization even if an  
7 application was otherwise reg -- satisfactory sort of  
8 by bringing 63.41 before the Board now through  
9 Section 63.31 (a) (2), requiring a finding of  
10 reasonable expectation that the wastes can be  
11 disposed of without unreasonable risk to public  
12 health and safety. And that the staff  
13 understanding --

14 >> JUDGE WARDWELL: Isn't Nevada's position  
15 stronger that, as a matter of law, that those  
16 findings can't be made?

17 >> MR. GENDELMAN: Right. In publication of the  
18 2001 final rule, the competition described the  
19 purpose of 63.31 quote "This section states the basis  
20 on which the Commission may authorize construction of  
21 a geologic repository operations area at the Yucca  
22 Mountain site" at 66.CFR.6781.

23 The Commission described Section 23.41. This  
24 section states the basis on which the Commission may  
25 issue a license to receive and posess special nuclear

1 or biproduct material at a geologic repository area  
2 at the Yucca Mountain site. There is no discussion  
3 there or elsewhere about imputing Section 63.41 into  
4 this construction authorization proceeding.

5 The Commission recently held that quote, "Courts  
6 construe regulations in the same manner they do  
7 statutes, by ascertaining the regulation, a basic  
8 tenet applicable to regulatory construction is that a  
9 statute should be construed so that effect it is  
10 given to all of its prediction, it's hydroresources  
11 63.NRC.483, 491 in 2006. Nevada's reading does not  
12 give effect to the plain meaning of 63.41 (a) (2);  
13 and, further, it would render that section  
14 meaningless with respect to license and receive and  
15 possess proceeding as they would already be findings  
16 as to that requirement.

17 The staff now is making safety findings about --  
18 in it's evaluation, it is evaluating the drip shields  
19 for compliance with several safety requirements,  
20 including 63.21, .31, 112, and 113. That is, the  
21 staff is evaluating the Department's drip shield and  
22 installation plan to determine whether there is a  
23 reasonable expectation that the wastes can be  
24 disposed of without unreasonable risk to health and  
25 safety. These aren't being delayed. These aren't

1 delayed findings. But the imputation of the Section  
2 63.41 requirement is beyond the scope of this  
3 proceeding and just to follow on what was discussed  
4 before, the staff followed a comment on the proposed  
5 language of this con -- this legal issue -- and felt  
6 that it was beyond the scope of the contention.

7 >> JUDGE RYERSON: Do you agree that, as  
8 written, Nevada Safety 162 continues to pose a fact  
9 question report?

10 >> MR. GENDELMAN: I think that's right. The  
11 staff's comment was whether or not the claim that  
12 63.41 requirements should be imputed was out of the  
13 scope of the contention, but as to whether or not the  
14 contention makes a factual claim, I -- I think  
15 that's fairly clear from the language of the  
16 contention.

17 Thus, the Commission makes findings pursuant to  
18 63.31 now concerning, among many other things, the  
19 DOE's drip shield, fabrication and installation  
20 plants.

21 To that end, in fact, the staff issued a request  
22 for additional information about those fabrication  
23 and installation plans -- and I can give you a  
24 citation and, I believe, the ML number and the LSN  
25 number in a moment. It's ML09-182-0629, Chapter

1 2.1.1.2 cet 1, where the staff in its review now  
2 during the construction authorization proceeding  
3 asked questions about the drip shield fabrication and  
4 installation. So, in summary, the staff is making  
5 safety findings as to the drip shields now, but the  
6 imputation is inappropriate under our rules; and  
7 unless the Board has anything further --

8 >> JUDGE MOORE: Thank you.

9 >> JUDGE WARDWELL: I have one question on Page  
10 Page 46 of your Brief where you talk about -- the  
11 Brief for the legal issue, the top of the paragraph,  
12 this is in your discussion of 63.41. You mentioned  
13 something that you've alluded to in your oral  
14 presentation here today that where a law includes  
15 particular language in one section but omits it in  
16 another, it is presumed the exclusion was intentional  
17 and purposeful.

18 Doesn't that contradict with your position in  
19 issue 2 that you -- when you said there was no  
20 significant change intended by the removal of  
21 language in that issue?

22 >> MR. GENDELMAN: Well, in this case, I think  
23 that language is being used to note that this fairly  
24 novel construction by Nevada reading one requirement  
25 for a clearly segmented consideration license to



1 receive and possess requirements into the  
2 construction authorization requirements, it is not  
3 supported by a -- by a position like that.

4 I think with respect to that change, as I  
5 believe was noted before, and I can get you a cite  
6 for this again, if you like -- that the purpose with  
7 that change was to comply with the EPA's stated  
8 standard and that it was not an intentional  
9 substantive change, but certainly I would speak with  
10 my co-counsel and give you more on that, if you like.

11 >> JUDGE MOORE: No need.

12 >> JUDGE MOORE: Thank you, counsel.

13 MR. GENDELMAN: Thank you.

14 >> JUDGE MOORE: We'll now address issue 11.

15 Mr. Malsch.

16 >> JUDGE WARDWELL: Do have you time for  
17 rebuttal?

18 >> JUDGE MOORE: Oh, did you want any rebuttal  
19 on that, on issue 10?

20 >> MR. MALSCH: If I may, for a few minutes,  
21 then I will go into issue 11. I don't think it's any  
22 secret to anybody that Nevada thinks that DOE's plan  
23 to assure safety of the repository by installing  
24 11,000 drip shields 100 years from now is  
25 unbelievable and fantastic that when Dr. Wardwell

1 asked DOE the question whether there was any  
2 precedent when the NRC has ever allowed materials to  
3 be possessed on site without a finding that necessary  
4 safety equipment was in place, I think he really had  
5 no answer. I mean, other than to say, oh, but this  
6 is different; but why is this different?

7 I mean, obviously, the Commission would not have  
8 allowed operation of a reactor without necessary  
9 safety equipment in place and it would have made no  
10 difference whether the reactor was going to operate  
11 for a 40 years or a hundred years or a million years.  
12 The principle is still there. And the principle is  
13 still the problem there. The fact is there would be  
14 wastes received on site and in wastes in tunnel  
15 drifts, all 700 metric tons without metric systems in  
16 place. I submit, that is absolutely unprecedented in  
17 all the decades of NRC regulation.

18 Secondly, I agree, you could read the  
19 regulations to say that at the construction  
20 authorization stage, one need not address this issue;  
21 but I would submit that the finding required at the  
22 construction authorization stage that there was  
23 reasonable assurance of safety disposal would embrace  
24 this finding if it made sense to do so. And I think  
25 it clearly made sense to do so.

1           If we are right about this issue, it would be  
2   utterly irrational for the NRC to authorize  
3   construction of the repository, knowing that it can  
4   possibly operate. That is contrary to the whole idea  
5   of there being a construction authorization stage in  
6   the first place.

7           Finally, as to the scope question with which is  
8   raised. Whether this is in the scope of our  
9   contention, I would just mention that, in fact, we  
10  did raise this issue in our reply to DOE's Answer to  
11  that contention. That's on Page 693 to 699.

12           We did not actually characterise it precisely as  
13  a legal issue; but it is there. And whether -- and  
14  whether that is within the scope of the contention  
15  was addressed in the papers and arguments we've  
16  submitted in connection with the framing of this  
17  legal issue in the first place. Thank you.

18           Let me address now issue 11. We've agreed --

19           >> MR. GENDELMAN: I'm sorry, Your Honor, I  
20  apologize, in speaking with co-counsel, I wanted to  
21  slightly correct -- in response to your question  
22  about issue 2, I just wanted to note that in issue 2,  
23  the language change was from a proposed rule to the  
24  final rule, where the statement I believe you cited  
25  in our discussion concerned construing a regulation

1 as a whole and didn't discuss proposed language  
2 versus final language.

3 >> JUDGE MOORE: Thank you.

4 Proceed, Mr. Malsch.

5 >> MR. MALSCH: Yes. This is issue 11 which  
6 deals with DOE's PMA or Performance Margins Analysis,  
7 we have agreed to share time 50-50 with staff on this  
8 issue and we have agreed that we would go first, and  
9 I would like to reserve a few minutes for rebuttal.

10 In its opening Brief, Nevada argued that DOE's  
11 Performance Margins Analysis is of indeterminate  
12 quality and cannot be used to validate or provide  
13 confidence in the TSPA because it has not complied  
14 fully with Quality Assurance requirements in subpart  
15 (g) of Part 63. DOE appears to insist to the  
16 contrary.

17 First of all, it's important to recognize  
18 exactly what the Performance Margins Analysis PMA  
19 actually is -- and that's explained quite carefully  
20 in the Safety Analysis Report at Section 2.4 at Page  
21 245 through 24 -- 246 analysis. It explains there,  
22 that the PMA is a separate set of TSPA calculations  
23 from which some conservatisms -- some supposed  
24 conservatisms have been removed.

25 So, clearly, the PMA is is a kind of a

1 Performance Assessment much like the TSPA except that  
2 certain conservatisms have been removed. It clearly  
3 fits the definition of a Performance Assessment in  
4 63.2 and 102 (j).

5 Most importantly, though, DOE concedes in its  
6 Brief here that the PMA uses unqualified software and  
7 data. Now, QA requirements are found in subpart 63  
8 and the PMA is subject to these requirements if three  
9 conditions are met -- and I would submit that all  
10 three conditions are clearly met.

11 The first condition is in 63.142 (a), which sets  
12 forth the terms of the applicability of subpart (g).  
13 The relevant provision here says that QA requirements  
14 apply to analyses of samples of data and scientific  
15 studies; and, clearly, the selection of data to  
16 support the Performance Margins Analysis in a conduct  
17 of the PMA, itself, including the developing and  
18 selection of models for the PMA constitute both an  
19 analysis of samples and data and a collection of  
20 scientific studies. No language suggests otherwise;  
21 and DOE points to none.

22 In fact, their Briefs completely ignore this  
23 particular aspect of subpart (g). In fact, if the  
24 PMA doesn't constitute a analysis of samples and data  
25 or the collection of scientific studies, nor does the

1 total Performance Assessment or DOE, even that is  
2 exempt from requirements in subpart (g). So this  
3 particular condition is clearly met.

4 Second, under 63.142 (a), subpart (g) applies to  
5 activities that are related to design of barriers  
6 that are more than to the waste isolation. Well,  
7 clearly, the PMA is so related. It applies to the  
8 same repository system as a TSPA, and it assesses the  
9 performance of the same natural barriers used in a  
10 TSPA to establish a disposal safety. So, clearly,  
11 the PMA is related to the design of barriers that are  
12 important to waste isolation. This condition is  
13 clearly met.

14 Third, there at 63.141, which defines the scope  
15 of subpart (g) and provides, in effect, that QA  
16 requirements in the subpart apply to all activities  
17 quote, "Necessary to provide adequate confidence that  
18 the repository would perform satisfactorily," which  
19 we take to mean will perform safely.

20 So from that, we see that the PMA is subject to  
21 subpart (g) and is Quality Assurance requirements if  
22 it is necessary to provide adequate confidence in  
23 safe disposal. So, if DOE is offering the PMA in  
24 evidence because it believes it is necessary to  
25 establish the adequacy of the total system

1 performance assessment, it's subject to QA but cannot  
2 be used for this purpose because it uses unqualified  
3 data and software.

4 If DOE doesn't believe the PMA is necessary to  
5 show adequacy of the Total System Performance  
6 Assessment, then TSPA is able to stand on its own  
7 without the Performance Margins Analysis and should  
8 stand on its own.

9 We consider the effect, the muddying effect  
10 there would be if the Board and Commission were to  
11 access the accuracy of the TSPA based on a  
12 combination of qualified and unqualified data and  
13 models. If we're going to do this, why bother to  
14 have Quality Assurance requirements in law?

15 >> JUDGE MOORE: Mr. Malsch, in your reply, you  
16 state that the PMA must be struck from the  
17 application. If it can't be relied upon, it can't be  
18 relied upon. Why must it be struck?

19 >> MR. MALSCH: I think we should not take that  
20 literally. I think I mean by that, it would not be  
21 admissible in evidence to establish post-disposal  
22 safety with the peak Performance Margins Analysis in  
23 it.

24 Now, DOE says that in their Briefs and in their  
25 Safety Analysis Report that the PMA was intended as a

1 validation tool providing confidence and they also  
2 said importantly is offered to show no risk of  
3 delusion, which I -- which means that it is offered  
4 to show that factors or models in the TSPA believe to  
5 be conservative are, in fact, conservative in terms  
6 of the ultimate dose and release calculation. These  
7 things sure sound to us like things that are  
8 necessary to establish the adequacy and safety of the  
9 Total System Performance Assessment; and, therefore,  
10 that is what DOE is offering them for.

11 I think it should be subject to QA and they --  
12 as DOE has admitted -- are not fully compliant with  
13 QA requirements.

14 On the other hand, if DOE is only offering the  
15 PMA as corroborative evidence to show extra  
16 assurance, and it's not clear at all that's all that  
17 they are offering it for -- because as I indicated,  
18 the SCR talks about dissolution, adequate validation  
19 and the like, but if that is what they are offering  
20 it for, I suppose in theory it's not subject to QA  
21 because it is not necessary to establish the adequacy  
22 of the Total System Performance Assessment; but I do  
23 think that would lead to a highly prejudicial  
24 situation for the other parties who are opposing the  
25 license application.



1           By analogy, would we admit the results of a  
2 illegal search and seizure in a criminal case not to  
3 provide evidence of proof beyond a reasonable doubt,  
4 but evidence of proof way beyond a reasonable doubt?

5           Once the evidence is received, it's impossible  
6 to make distinctions of these sorts. So if DOE is  
7 offering it as corroborative evidence, that's all  
8 very interesting; but to admit it as such would  
9 hopelessly muddle up the safety case and would  
10 greatly prejudice the other parties.

11           So, in conclusion, either the term PMA is  
12 necessary to show the adequacy of the TSPA; in which  
13 case, it can't be allowed to do so, because it  
14 relates DOE requirements or it's not necessary in  
15 which case it's both irrelevant and its admission as  
16 a part of DOE safety case would be highly  
17 prejudicial.

18           >> JUDGE MOORE: Thank you, Mr. Malsch.

19           Staff.

20           >> MS. SILVIA: Andrea Silvia on behalf of the  
21 NRC staff.

22           If the PMA is being relied upon to meet the  
23 regulatory standard of adequate confidence, then it  
24 must meet the Part 63, subpart (g) Quality Assurance  
25 requirements. Section 63.142 (a) requires a Quality

1 Assurance Program to be applied to all structured  
2 systems and components important to safety to design  
3 and characterization of barriers important to the  
4 lake isolation and to related activities. The  
5 related activities includes analyses of data and  
6 scientific studies. The PMA, a set of calculations  
7 that analyzes post-closure performance over a set of  
8 modeling cases falls into the category of related  
9 activities under 63.142; therefore, if the PMA is  
10 needed to provide adequate confidence under 63.141,  
11 that the repository will perform satisfactorily, it  
12 must be subject to a Quality Assurance Program.

13       However, nothing prevents DOE from providing  
14 additional information in its license application to  
15 offer additional confidence in the performance  
16 assessment. Information that is not needed to  
17 demonstrate adequate confidence does not need to be  
18 qualified under DOE's Quality Assurance Program.

19       >> JUDGE MOORE: Counsel, I'm just curious, how  
20 do you respond to Mr. Malsch's comment that it can't  
21 be relied upon, but here it is and the -- here it is,  
22 is only for the staff to rely upon.

23       >> MS. SILVIA: Not -- the staff does not need  
24 to rely upon everything included in the license  
25 application to make its safety findings. There is

1 nothing in the regulations that prevents DOE  
2 from providing additional information.

3 >> JUDGE MOORE: You said that if it is used  
4 to -- for add-in confidence, why would the staff ever  
5 accept something as added confidence that was not  
6 QA-qualified, almost definitionally is it something  
7 that's not QA-qualified, something in which one  
8 cannot establish a confidence level?

9 >> MS. SILVIA: Well, the staff will not rely on  
10 anything for its safety findings that is not  
11 credible, but as of now, the staff has not completed  
12 its safety findings, so it's -- unclear how the staff  
13 will or will not use the PMA; but if it is necessary  
14 to the staff safety findings, the staff will insure  
15 that it is subject to the subpart (g) Quality  
16 Assurance Requirement.

17 >> JUDGE MOORE: Thank you, counsel.

18 DOE.

19 >> MR. SILVERMAN: Thank you, Your Honor.

20 Don Silverman for DOE.

21 I think there's two ways that the Board can deal  
22 with this particular legal issue and there is a very  
23 simple way. I'm going to address that first; and if  
24 we want to get into the details of perhaps the more  
25 complicated way of dealing with them, we can do that.

1           A significant part of Mr. Malsch's argument,  
2 was -- he's stated three reasons for why the PMA is  
3 the kind of analysis that should be governed and  
4 conducted pursuant to a -- the department's Quality  
5 Assurance Program. We agree with that.

6           And that takes me back to the actual statement  
7 of a legal issue. And if we read that statement as  
8 precisely as written, it says, "Whether under certain  
9 regulations" -- which are basically among others, the  
10 QA regulations -- "the PMA can be used to validate or  
11 provide confidence in the TSPA, if its data and  
12 models are not qualified under DOE's Quality Issuance  
13 Program, the Department's position is if those data  
14 and models are not qualified under a QA program, then  
15 the answer is, no, we can't rely on them. That would  
16 resolve the legal issue. We're in agreement with the  
17 part with both the staff and Nevada on that.

18           Where we depart -- and that could resolve the  
19 matter as a legal matter. Where we depart is  
20 whether, in fact, that PMA has been conducted in  
21 accordance with DOE's Quality Assurance Program and  
22 our position is that it has been. There was some  
23 language in the SAR and in some of the supporting  
24 documents that refer to the use of unqualified data.  
25 And that's where I think we got a little confused

1 that perhaps DOE's language could have been written a  
2 little more clearly. But the operative phrase that I  
3 think the State of Nevada is relying on is a  
4 statement in a document that supports DOE. It's the  
5 TSPA model analysis report. And they're referring to  
6 an Appendix to the TSPA model analysis report. The  
7 basic TSPA model analysis report sets forth the basic  
8 findings, how we went about the TSPA, and the  
9 conclusions to the TSPA. This Appendix that we're  
10 referring to deals with the PMA as a tool to test the  
11 conservatisms in, as an ancillary analysis, if you  
12 will, to test the TSPA. And in that section of the  
13 Appendix, which deals with PMA, we say that PMA  
14 contains both qualified and unqualified data.

15 What we meant by that was in context, when we  
16 refer to unqualified data, was that the data was not  
17 qualified for direct use in the TSPA. That is not an  
18 after the fact rationalization, if you read the  
19 sentences around that particular sentence, I think it  
20 is reasonable to draw that conclusion -- and I have  
21 consulted with our people and they assure me this is  
22 what they intended. They merely meant to say that  
23 this data was not suitable for use -- direct use --  
24 in the TSPA; but they did not mean to imply it was  
25 conducted or evaluated in accordance with a QA

1 program or that it was unsuitable for use in a  
2 cooperative analysis.

3 This particular section of this attachment,  
4 Appendix to the TSPA model report says -- and I'm  
5 just citing this operative sentences. The PMA  
6 utilizes the TSPA-LA model with changes to certain  
7 inputs in models. I'll give -- this is Page C-8 of  
8 the Appendix to the TSPA model report.

9 This PMA utilizes the TSPA-LA model with changes  
10 to certain inputs in models. This section presents  
11 those inputs that have been changed from those used  
12 in the TSPA-LA model and additional inputs necessary  
13 to support the PMA. Table C-4-1 lists the input  
14 parameters to the TSPA-LA model that have been  
15 changed or deleted for the PMA; and then it says, the  
16 PMA contains both qualified and unqualified data,  
17 what we really meant there, in this context was -- we  
18 couldn't use some of this data for the TSPA, but we  
19 did not suggest it wasn't perfectly suitable for a  
20 corroborative analysis.

21 >> JUDGE WARDWELL: So, all of this discussion  
22 is really -- as you, the latter discussion is really  
23 a factual issue, not a legal issue, isn't that  
24 correct, on whether or not your PMA actually does  
25 meet the QA is a factual discussion?

1 >> MR. SILVERMAN: I agree with that, if the  
2 Board simply agrees that we cannot use data in the  
3 PMA that isn't appropriately qualified under our  
4 Quality Assurance Program, assuming that Quality  
5 Assurance Program complies with the regulations, then  
6 there would be a factual issue as to whether it does  
7 or not.

8 >> JUDGE WARDWELL: So the way the legal issue  
9 was framed from the suggestions of the parties was  
10 whether or not under a 10.CFR.63, 113, 114, Part 63,  
11 subpart (g), the PMA can be used to validate or  
12 provide confidence in the TSPA if its data and  
13 models are not qualified under DOE's Quality  
14 Assurance Program, you agree that on that legal issue  
15 is correct?

16 >> MR. SILVERMAN: The answer is no -- and our  
17 further position is, however, it was the -- data  
18 was -- the data was qualified in accordance -- for  
19 the purpose it was used.

20 >> JUDGE WARDWELL: Right, and that gets back to  
21 Nevada Safety 171 where it basically -- it -- Nevada  
22 designated it as a legal issue. They've provided in  
23 their first sentence, the first half of a sentence  
24 pretty much the same thing as you agreed upon wording  
25 here for the legal issue of 11, but then it goes on

1 to say, but it cannot lawfully be used for these  
2 purposes because it relies on data and models that  
3 are not qualified pursuant to DOE's Quality Assurance  
4 Program. That is a factual issue, is it not, similar  
5 to what you just tried to provide some defense why  
6 you felt it was qualified?

7 >> MR. SILVERMAN: I agree it is; and, in fact,  
8 that statement of the legal issue and statement  
9 contention is identical to the legal issue, yes, I  
10 agree.

11 >> JUDGE WARDWELL: The first half is identical,  
12 after the "but" isn't.

13 >> MR. SILVERMAN: You are right.

14 >> JUDGE WARDWELL: Because nothing in your  
15 wording of 11 says whether or not your data and  
16 models are or are not qualified. This is more  
17 specific -- and it seems to me, part of 171 even  
18 though it's designated as a legal issue might survive  
19 as a factual issue. Would you have any objections to  
20 that?

21 If we can recast 171, the residual last half of  
22 it as a remaining factual issue to be --

23 >> MR. SILVERMAN: Right, as to whether the data  
24 and models are qualified pursuant to the QA program,  
25 I would have no objection to that whatsoever; and I



1 think unless you have further questions, that was all  
2 we have for us.

3 >> JUDGE MOORE: Thank you, Mr. Silverman.

4 Mr. Malsch, do you wish brief rebuttal?

5 There seems to be complete agreement that the  
6 answer to the legal question that as posed in issue  
7 11 is no; and do you agree that the remaining part of  
8 your contention 171 is a factual matter?

9 >> MR. MALSCH: I think the remaining part of  
10 the contention could be a factual matter, but I still  
11 think the contention can be resolved as a pure legal  
12 matter for the following reasons...what you have here  
13 is a concession by DOE that its PMA used models and  
14 software that were not qualified as direct inputs to  
15 the TSPA and that was explained to me that it could  
16 not be used to support the TSPA directly but could  
17 only be used to provide corroborative evidence of the  
18 adequacy to TSPA. And we've agreed here that if that  
19 is the only purpose for which the TSPA is being  
20 offered -- that is to say to provide corroborative  
21 evidence -- then it need not be subject to subpart  
22 (g), even though it may be subject to other DOE  
23 Quality Assurance requirements.

24 The problem I have is -- is a problem that I  
25 raise in connection with the illusion of a criminal

1 case. I think it would be highly prejudicial and  
2 contrary to the overall intent to subpart (g) to  
3 admit into evidence unqualified information and  
4 models and data to provide added confidence on top of  
5 adequate confidence. I think that muddies the issue  
6 up completely and is highly prejudicial.

7 >> JUDGE MOORE: But your premise is that DOE's  
8 statement from Appendix C noted in footnote 12 of  
9 DOE's Brief and then again in their reply Brief of --  
10 I guess it's the TSPA, Appendix C, is black and white  
11 to be read literally that they used unqualified data  
12 to support the PMA.

13 I believe -- and I'm sure Mr. Silverman will  
14 correct me if I am wrong -- that he just explained to  
15 us that that, although poorly worded, is not  
16 meant -- was not meant literally, and that there were  
17 elements of the Sandia (phonetic) work that were  
18 unqualified or would be unqualified under DOE's QA  
19 program. I do not believe Mr. Silverman said that  
20 that statement was to be read literally and meant  
21 that they did, in fact, use that material and that  
22 would still remain as a factual question.

23 >> MR. MALSCH: I -- I think the -- this is the  
24 TSPA model report is actually quite clear about this,  
25 and let me read exactly what DOE said in its model

1 report. It said, "Table C-4-2 lists input parameters  
2 that have been added to the TSPA-LA model for the  
3 PMA, Performance Margins Analysis. The PMA contains  
4 both qualified and unqualified data."

5 Then it goes on to say, "The data traceability  
6 described in Section C-4-1 and C-4-2 providing  
7 mapping from the PA-parameters to the data source."

8 So --

9 >> JUDGE WARDWELL: Well, regardless -- are you  
10 still quoting, I'm sorry?

11 >> MR. MALSCH: Yes. This goes on in the final  
12 section, Section C-5, I'll read that to you also.  
13 "It is important to reiterate that while these  
14 additional submodels and data" -- the ones we're  
15 talking about here -- "were developed in accordance  
16 with apple Quality Assurance Requirements. Now,  
17 these must be other than DOE's Quality Assurance Plan  
18 for direct inputs in the TSPA. In some cases, they  
19 represent models with limited technical foundation,  
20 verification and validation consistent with the  
21 requirements of SY-PRO-O66 (phonetic) models." This  
22 is the program relied upon for developing the data.  
23 "PA models, submodels may use software that is  
24 controlled but not qualified."

25 So what the DOE is telling you is that they, the

1 PMA was not qualified as a direct input to the TSPA  
2 and what they mean by that, clearly is, it is only  
3 qualified and it was only intended to be used for a  
4 corroborative evidence purposes.

5 >> JUDGE WARDWELL: Whether or not DOE's data  
6 models are qualified under DOE's QA program is a  
7 factual discussion, not a legal one; isn't it?

8 I mean, all you're saying is, yeah, you've got a  
9 position and they've got a position and let's sort it  
10 out whether or not their data or models do match and  
11 are in compliance with their QA program?

12 >> MR. MALSCH: Well, but there is only one  
13 Quality Assurance Program. That's the one that's  
14 associated with the license application. I believe  
15 the DOE is telling us that the PMA uses data and  
16 models, it does not qualify in accordance with that  
17 program. Perhaps --

18 >> JUDGE WARDWELL: That isn't what I just heard  
19 him say; but, regardless, that debate is a factual  
20 issue.

21 >> MR. MALSCH: If there is a debate about that,  
22 I would agree, it's a factual issue, that is correct.

23 >> JUDGE WARDWELL: Okay. Whether or not the  
24 PMA can be used to validate or provide confidence in  
25 the TSPA, if it's -- if it's data or models are not

1 qualified under DOE's Quality Assurance Program is  
2 the legal question. And both parties agree that,  
3 yes, it can't be, if it doesn't meet it.

4 >> MR. MALSCH: That is correct.

5 >> JUDGE WARDWELL: So it seems to me the legal  
6 issue is resolved. What's remaining is the last half  
7 of what you said under 171, your position is it  
8 cannot lawfully be used for these purposes because it  
9 relies on datas and models -- data and models that  
10 are not qualified under the QA program. That's a  
11 factual discussion.

12 >> MR. MALSCH: I think it is, but there is  
13 another piece of the legal question that would need  
14 to be addressed. And that is -- let's assume for  
15 purposes of argument the resolution of the factual  
16 question is that the PMA relies upon data and models  
17 that are not, in fact, qualified under subpart (g).  
18 The question then remains whether it may be offered  
19 as corroborative evidence.

20 >> JUDGE WARDWELL: Where is that stated in  
21 legal issue 11?

22 >> MR. MALSCH: The issue is in terms of whether  
23 the team may be offered to provide -- to validate or  
24 provide confidence, provide confidence can mean both  
25 adequate confidence and extra confidence. I think

1 it's within the scope of the legal question. And  
2 it's important to know that because then we would  
3 know what uses could be made of the PMA in the event  
4 it does turn out to be factually correct. That it  
5 does use data and software that are not qualified  
6 under subpart (g).

7 >> JUDGE MOORE: But if it can't be relied upon  
8 for the TSPA, then we're all in agreement that  
9 unqualified data cannot be. It's a factual matter  
10 pure and simple, whether or not DOE crossed the line  
11 or didn't cross the line and if in its review the  
12 staff errs because the SCR will be out by the  
13 time -- will be out by the time there is discovery  
14 and go to hearing, that will all be known whether or  
15 not the staff has complied with the regulations -- in  
16 enforcing the regulations.

17 >> MR. MALSCH: Let me put it this way...if the  
18 PMA, if it is agreed, that the PMA cannot be offered  
19 to either provide adequate confidence or any  
20 confidence at all in the TSPA, without it being fully  
21 compliant and I agree, there is no other issue  
22 remaining except a factual issue whether or not it is  
23 fully compliant.

24 >> JUDGE MOORE: But I ask you what initially  
25 that in the context of your supply Brief, you said it

1 should be struck from the application, why it needed  
2 to be struck and I believe your answer was that that  
3 was for perhaps an overstatement or something in that  
4 regard, and you then explained that it, in effect,  
5 that it did not have to be physically removed.  
6 Doesn't that not contradict what are you now telling  
7 me?

8 >> MR. MALSCH: No, I'm saying that in terms of  
9 the ultimate DOE safety case, post-disposal safety  
10 case, when it comes to establishing the post-disposal  
11 safety case, if it is -- if it is agreed that a PMA  
12 which uses unqualified software and models, cannot be  
13 offered as any evidence of confidence or any support  
14 at all for the TSPA, I agree, the only issue is  
15 whether, in fact, the TSPA is compliant or not  
16 compliant with subpart (g).

17 My only issue is, this whole question about  
18 corroborative evidence. And I think it should be  
19 made clear that we believe that the use of the PMA to  
20 provide corroborative evidence, you know, added  
21 confidence, extra confidence, would be highly  
22 prejudicial and contrary to subpart (g).

23 >> JUDGE RYERSON: Okay. But one interpretation  
24 of the question, the legal question that imposed was  
25 would cover that, I mean, it says, it can, you know,

1 cannot be used to validate or provide confidence in  
2 the TSPA. And your concern is that providing  
3 confidence should be interpreted as also extending to  
4 some other type of corroboration?

5 >> MR. MALSCH: Well, yeah, we were construing  
6 confidence in a broad sense as support for any  
7 support to the TSPA.

8 >> JUDGE RYERSON: That's a rational reading of  
9 this -- of this issue, and there seems to be no  
10 disagreement on the issue as a legal issue.

11 >> MR. MALSCH: Thank you.

12 >> JUDGE MOORE: Thank you.

13 >> MR. SILVERMAN: May I add a brief word, Your  
14 Honor?

15 >> JUDGE MOORE: Whoa.

16 >> JUDGE MOORE: Perhaps not.

17 >> MR. SILVERMAN: I don't know my own strength.

18 One very quick comment, Mr. Malsch is, has  
19 repeatedly said it was entirely prejudicial to admit  
20 its evidence into this case. Data or information  
21 that's not qualified pursuant to a QA program. I  
22 don't believe that's the evidentiary standard at all.  
23 If it was the evidentiary standard, I don't believe  
24 the state of Nevada could beat it, because I don't  
25 believe -- I suspect much of the information they



1 will submit in this case is not prepared pursuant to  
2 the a qualified -- pursuant to a QA program, that  
3 meets the requirements, I think that's completely  
4 wrong.

5 >> MR. MALSCH: Your Honor, in fact, we do have  
6 a compliant program data gathering analysis supplied  
7 with this.

8 >> JUDGE MOORE: I think we've heard all we want  
9 to hear on issue 11. I would like to thank all  
10 counsel, parties for your Briefing and presentations.

11 Mr. Silverman, do you wish to be acknowledged?

12 >> MR. SILVERMAN: I do.

13 >> JUDGE MOORE: If it's for the last word, the  
14 answer is no; if it's for another purpose --

15 >> MR. SILVERMAN: It's for another purpose,  
16 it's to respond to something yesterday and to come  
17 back to you and also to make one clarification on  
18 something I made yesterday.

19 >> JUDGE MOORE: Go ahead.

20 >> MR. SILVERMAN: I would never seek to try to  
21 get the last word in.

22 Two points I wanted to bring up, one was a  
23 clarification and I -- frankly, I have not gone back  
24 to look at the transcript to see exactly what I said,  
25 but it's been called to my attention that in

1 connection with the Nevada 161, which is the absence  
2 or failure of the drip shields, that the record might  
3 not have been clear as it could have been on one  
4 matter. And in the context of that discussion  
5 yesterday, I wanted to point out that there was some  
6 discussion of the igneous scenarios. And the record  
7 might not have been clear with respect to that  
8 discussion.

9       What I would like to make clear to DOE -- I'm  
10 sorry, what I'd like to make clear to the Board is  
11 that in DOE's analysis of the igneous scenarios, we  
12 not only -- what I'll say took out or pursued away,  
13 assumed the failure of the drip shields, all of the  
14 drip shields, in the event of an igneous intrusion,  
15 but we also simultaneously assumed away the waste  
16 packages. In other words, assumed failure of all the  
17 waste packages. And the results of that were  
18 included in our ultimate dose estimate and they were  
19 documented in the TSPA analysis report. I have to go  
20 back and find exactly the place in the transcript  
21 where that subject came. I must admit to you I don't  
22 remember exactly what I said. Hopefully, that will  
23 clarify matter if and when you go back and look at  
24 that part of the transcript.

25       >> JUDGE RYERSON: Mr. Silverman, just to

1 clarify, those phenomenon are discounted in the TSPA  
2 by virtue of the probability that they will occur;  
3 is that correct?

4 >> MR. SILVERMAN: That is  
5 effectually -- discounted, I'm not sure I used that  
6 word. I understand what you are saying. >> JUDGE  
7 RYERSON in other words, the effect of the overall  
8 calculation is diminished by the likelihood that it  
9 will, in fact, occur?

10 >> MR. SILVERMAN: Absolutely. Because the  
11 legal standard is a mean dose based upon many many  
12 scenarios, weighted by the probability of occurrence  
13 of those scenarios. And that's set forth in the  
14 regulations, so you are correct.

15 >> JUDGE RYERSON: So it's very different from  
16 simply saying there are no drip shields there, there  
17 are no drip shields modified by the likelihood there  
18 will be an effect?

19 >> MR. SILVERMAN: I believe that's correct.

20 Then I would like to respond, do the best I can  
21 to respond to Judge Wardwell's question, bear in  
22 mind, you are talking to a political science major  
23 here, so I can only go so far. But your question to  
24 us on the same contention was: Why would DOE not  
25 want to know if 99% of the protection of the REMI

1 (phonetic) is provided by one component or one  
2 barrier. And I'd like to take a shot at that and  
3 basically would like to point out to you that we  
4 think we have quantitatively demonstrated the  
5 relative importance of the individual barriers and we  
6 did that in almost 200 pages of the SAR in Section  
7 2.1.

8 The function of a barrier is to isolate waste.  
9 That is, to reduce or prevent the movement of water  
10 into the repository, into the waste, or the movement  
11 of radionuclides to the system. Those the the  
12 processes, excuse me, those are the purposes of the  
13 barrier.

14 >> JUDGE WARDWELL: What barrier ever prevents  
15 the movement of water?

16 >> MR. SILVERMAN: Completely prevents the  
17 movement of water?

18 I suspect the technical people would tell me  
19 that no barrier completely prevents it.

20 >> JUDGE WARDWELL: So really, those two words  
21 should be just reduced rather than reduce or prevent?  
22 You were reading off a phrase that said, we had  
23 multi-- we got barriers and they reduce or prevent,  
24 but, in fact, none of them prevent; is that correct?

25 >> MR. SILVERMAN: I suspect that's correct, so

1 I think it would be fair to say reduce.

2 >> JUDGE WARDWELL: Thank you.

3 >> MR. SILVERMAN: The movement again of water  
4 or radionucleides. To remove the water and  
5 radionucleides. So our barrier is confirmed -- it's  
6 in those terms not in those of the contribution to  
7 the actual ultimate dose. The analysis was to the  
8 intended nor is it required to quantify the  
9 performance of each of the individual barriers in  
10 terms of the fraction of dose to the REMI (phonetic)  
11 that that barrier contributes.

12 So we demonstrate the performance of each  
13 individual barrier again in terms of its contribution  
14 of the isolation of waste. Our view is that's all  
15 that's required and that's sufficient to provide a  
16 sound basis for assessing barrier capability and the  
17 basis for that, the legal basis for that is reflected  
18 in the regulations in Section 63.115 (c), which I  
19 will very briefly read from and, again, those two  
20 pages of Federal Registry Notice that I continue to  
21 refer back to that we spentt so much time on  
22 yesterday, but I'll refresh your memory 66 Federal  
23 Reg 55758 and 59. I'm not going to re-read from  
24 that. But I will read to you in 63.115 (c), 63.115  
25 is requirements for multiple barriers.

1 "Demonstration of compliance with 63.113 (a),"  
2 which is the multiple barrier requirement, "must (c)  
3 provide, the technical basis for the description of  
4 the capability of barriers identified as important to  
5 waste isolation to isolate waste. The technical  
6 basis" -- this is the key phrase.

7 "The technical basis for each barrier's  
8 capability shall be based on and consistent with the  
9 technical basis to the performance assessments used  
10 to demonstrate compliance with 63.113 (b) and (c),"  
11 which are the performance standards and the overall  
12 barrier system.

13 In other words, what it's done to meet the  
14 multiple barrier standard should be the same  
15 performance assessment used to determine compliance  
16 with the ultimate dose standards. I hope that that  
17 is clear and helps.

18 >> JUDGE MOORE: Thank you.

19 >> MR. SILVERMAN: Thank you.

20 >> JUDGE MOORE: All right. Once again -- oh,  
21 staff.

22 >> MS. SILVIA: The staff has a brief  
23 housekeeping question. With depositions starting in  
24 a few weeks, we were just wanted to check and make  
25 sure that the comments from the parties regarding

1     DOE's statements for its LSN collection, if you had  
2     any idea of when those would be due from the other  
3     parties?

4           >> JUDGE MOORE:  At this point I can't give you  
5     a date, but if the material that Mr. Shebelskie is  
6     going to provide the Board next Thursday, I would  
7     imagine and it will have to be determined and we will  
8     issue an Order the 1st of next week, that it will  
9     be a reasonably short time for comment on anything  
10    that DOE tells us.

11           >> MS. SILVIA:  Thank you, Your Honor.

12           >> JUDGE MOORE:  Mr. Malsch.

13           >> MR. MALSCH:  I would just like to briefly  
14    observe what you just heard from Mr. Silverman is a  
15    re-argument of issue No. 8, dealing with defense in  
16    depth.  I don't think I need to respond in detail to  
17    what he said other than to observe that we think the  
18    record is clear from the argument yesterday.

19           >> JUDGE MOORE:  I -- I believe it can be  
20    characterized, as can all oral arguments, there are  
21    three:  The one you prepare to give, the one you  
22    give, and the one you wish you gave; and I put this  
23    into category 3.

24           >> MR. MALSCH:  Thank you.

25           >> JUDGE MOORE:  Again, I would like to thank

1 counsel and we will stand adjourned. The Board will  
2 now wrestle with issues 1 through 11.

3 (Whereupon the proceedings were concluded)

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