

# UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

Title: BRIEFING ON CONFORMITY OF GUIDANCE ON LOW LEVEL WASTE  
DISPOSAL FACILITIES WITH REQUIREMENTS OF 10 CFR PART 61

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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

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BRIEFING ON CONFORMITY OF GUIDANCE ON LOW LEVEL  
WASTE DISPOSAL FACILITIES WITH REQUIREMENTS OF  
10 CFR PART 61

- - - -

PUBLIC MEETING

Nuclear Regulatory Commission  
One White Flint North  
Rockville, Maryland

Monday, October 1, 1990

The Commission met in open session,  
pursuant to notice, at 2:00 p.m., Kenneth M. Carr,  
Chairman, presiding.

COMMISSIONERS PRESENT:

KENNETH M. CARR, Chairman of the Commission  
KENNETH C. ROGERS, Commissioner  
JAMES R. CURTISS, Commissioner

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## STAFF SEATED AT THE COMMISSION TABLE:

WILLIAM C. PARLER, General Counsel

JOHN HOYLE, Office of the Secretary

JAMES TAYLOR, Executive Director for Operations

ROBERT BERNERO, Director, NMSS

JOHN GREEVES, Deputy Director, Division of LLW Mgt.  
and Decom., NMSS

DOROTHY MICHAELS, Attorney, Office of the General  
Counsel

KATHY SCHNEIDER, Office of State Programs

P-R-O-C-E-E-D-I-N-G-S

2:00 p.m.

CHAIRMAN CARR: Good afternoon, ladies and gentlemen.

This afternoon the Commission will be briefed on the NRC staff's effort to evaluate the conformity of guidance on low level waste disposal facilities with the requirements of 10 CFR Part 61.

Early in 1990, members of the public and the Commission's Advisory Committee on Nuclear Waste raised questions about the current low level waste guidance. In March of 1990, the Commission requested the staff and the Office of the General Counsel to review low level waste guidance to ensure that it comports with requirements of 10 CFR Part 61 and to address any inconsistencies which were noted in the staff's review of DOE's prototype license application safety analysis reports, or PLASARs.

Staff was also asked to develop a regulatory road map which identifies applicable low level waste guidance and to identify concerns that prompt consideration are more restrictive criteria than the regulations themselves.

This afternoon the NRC staff will brief the Commission on the results of their review and on

1 their recommendation for needed actions.

2 Do any of my fellow Commissioners have any  
3 opening comments?

4 If not, Mr. Taylor, please proceed.

5 MR. TAYLOR: Good afternoon. With me at  
6 the table is Mr. Bernero, the head of the Office of  
7 NMSS, and three of the leading members of a cross  
8 office team, put together to review the documents on  
9 this subject. I'll now introduce them. To my far  
10 left, Kathy Schneider from State Programs; to my  
11 immediate right, John Greeves, the Office of NMSS, and  
12 Dorothy Michaels from the Office of General Counsel.  
13 They're three of the leading members of this team and  
14 there are other members here in the audience.

15 With that introduction, I'll ask John  
16 Greeves to begin.

17 MR. GREEVES: Okay. We have a set of  
18 handouts that are in front of everybody. There are  
19 additional copies of the handouts off to the side of  
20 the room for those in the audience who would like to  
21 follow along.

22 (Slide) I'm on page 2 of the handout.  
23 Basically, this is just an overview of the topics that  
24 I plan to address here this afternoon, the first of  
25 which, as you mentioned, was the Commission request in

1 March. I'm going to go over a little bit of the  
2 background on the development of the Low Level Waste  
3 Amendments Act to show how this guidance fit in with  
4 that. I will go into some detail regarding the  
5 approach that the staff took to conduct this review  
6 and we'll finish up with conclusions and  
7 recommendations on future plans as a result of this  
8 effort.

9 (Slide) Then let's move over to page 3.

10 There were, as you mentioned, four  
11 elements to your request, the first of which was to  
12 address this question of conformity of the low level  
13 waste guidance put out by the staff in conformance  
14 with Part 61. This guidance needs to accurately  
15 reflect what is in the regulations. And in a number  
16 of cases externally, people out in the states view  
17 these guidance documents as being mandatory. So, they  
18 need to be looked at very carefully.

19 The second area, as you mentioned, was the  
20 prototype license application safety analysis report.  
21 I won't say that out each time. It's a mouthful. We  
22 all refer to that as the PLASAR process. Basically,  
23 we reviewed that and it ended up being shakedown  
24 crews, which we'll discuss further.

25 The third item was the road map that was

1 raised by the Advisory Committee on Nuclear Waste and  
2 you asked us to get together with the states and talk  
3 some more about that and we have.

4 And the last item that was included in the  
5 request was the consideration of more restrictive  
6 criteria in case we found something in the guidance  
7 that did go beyond Part 61. Let's not discard it if  
8 it's something that really is needed. So, we look  
9 for those.

10 Also, I would like to point out that this  
11 has had a large impact on what the staff is doing in  
12 the sense that the staff is sensitized to this issue  
13 and they are implementing it in other areas. They're  
14 looking at documents that we're working on currently  
15 and they're also reviewing some of the others that  
16 we've worked on in the past. It's turned out to be a  
17 very efficient way to address this question.

18 (Slide) Okay. I'm over on page 4.

19 As I think all of you are aware, what  
20 brought a lot of this action in terms of guidance  
21 forward was the '85 Amendments Act. There were two  
22 sections in there, Section 8(a) and 8(b) which  
23 required the staff to do certain things, the first of  
24 which was within 12 months we had to identify the set  
25 of alternatives that were acceptable and establish



1 procedures for reviewing such alternatives. That  
2 resulted in the January of '87 publication of the  
3 standard format and content, which we'll refer to as  
4 the FF&C, and the standard review plan, which also is  
5 the SRP.

6 The Act also called for within a 24 month time  
7 frame for the staff to publish all technical  
8 information regarding these engineered alternatives,  
9 the real detail on these future alternative concepts  
10 that the states were looking at. We published that  
11 set of documents in January of '88. It essentially  
12 was revision 1 to the standard review plan. And as  
13 you mentioned earlier, some number of questions have  
14 been raised.

15 People had a couple of years to work with  
16 these documents. California had a chance to get a  
17 license application in and for one Al Pasternak wrote  
18 a letter to Harold Denton and raised some questions  
19 about the guidance going beyond the requirements.  
20 Subsequent to that time frame, we received a detail  
21 letter from Bob Avant, from the Texas Low Level Waste  
22 Disposal Authority, identifying some of the concerns  
23 that he was aware of.

24 (Slide) So, with that, I'd like to go  
25 over the way that we organized the review team to

1 complete this effort. As Jim Taylor mentioned, it was  
2 a multi-office review approach. What we tried to do  
3 was take a broad look at these guidance documents. We  
4 wanted to work with some of the people who had been  
5 authors of the document. At the same time, we wanted  
6 to get some new people involved who were not authors  
7 of the document, to make sure we had a look at a  
8 couple of different angles.

9 So, we obviously involved the Office of  
10 NMSS, Low Level Waste staff. Principally, Joe Kane  
11 was the lead technical reviewer on that project. We  
12 were able to get some help from the High Level Waste  
13 staff. Mike Blackford, who is a seismological expert,  
14 we asked him to participate. OGC was represented by  
15 Dorothy Michaels and Government and Public Affairs by  
16 Kathy Schneider down at the left.

17 It turns out that some of these other  
18 people, like Kathy Schneider, were able to bring some  
19 experience working with the states that the staff in  
20 Low Level Waste didn't quite have. We sometimes maybe  
21 get a little too close to our documents. Kathy was  
22 quite helpful in her experience in giving guidance  
23 to the state on other matters related to NRC. So, it  
24 was quite helpful to have this broad team look at this  
25 approach.

1                   (Slide) The next thing we did to try and  
2 do this efficiently was we divided the up the  
3 assignments as follows. We selected three people  
4 within the group to review the entire document. I'm  
5 sure you've seen them. It's a rather imposing  
6 document to try and get through. So, we assigned to  
7 Dorothy Michaels, Maxine Dunkelman, of my staff, and I  
8 also reviewed the entire document from front to back.  
9 Along with that, to do an efficient review, we gave  
10 specific section assignments to the rest of the team,  
11 predominantly in their area of technical discipline.  
12 So, it ended up being a bit of a part-time job for  
13 folks and they were able to do their other work.

14                   As far as timing, we set up a goal to  
15 complete the internal review by the staff by the end  
16 of May and then we drafted up our comments in a mini-  
17 report by the end of June. That put us in the  
18 position to be able to meet with the states. We wrote  
19 letters to key agreement states, inviting them to come  
20 in and participate in this process with us.

21                   As you can see on this slide, we contacted  
22 Texas, Pennsylvania and California and we worked with  
23 the regulatory side of the program. For example, in  
24 California we invited the Bureau of Radiation Control  
25 to come in and meet with us and go over this process

1 and asked them also to bring the Texas Low Level Waste  
2 Disposal Authority. They're the ones who had  
3 developed the application in Texas and they brought  
4 their views. We had a very good meeting with them.

5 In Pennsylvania, we met with the Bureau of  
6 Radiation Protection, Bill Dornseif's group. Bill was  
7 in here briefing you previously. He brought in with  
8 him Chem Nuclear Services, Incorporated. Mike Ryan,  
9 one of their Vice Presidents, participated in that.  
10 Bill also brought Westin, one of the consultants to  
11 the regulator in Pennsylvania. Prior to the meeting,  
12 a citizens group representative in Pennsylvania called  
13 me up and asked if she could come sit in on the  
14 meeting. This was Judith Johmsrud with the citizens  
15 group in Pennsylvania. I said, "Fine, I'd be happy to  
16 have you sit in on the meeting," and she did. That  
17 worked very well.

18 In the case of California, it turns out  
19 that we were unable to actually have them come in for  
20 a meeting. They asked if we could do this by  
21 conference call and that ended up to be very  
22 successful. So, we had a separate conference call  
23 with Department of Health Services, the regulatory in  
24 California, and also their consultant, Westin, was on  
25 the line for that. Then separately we had a

1 conference call with U.S. Ecology, the developer in  
2 California. So, with this process, we captured the  
3 principal developers of the sites. For example, U.S.  
4 Ecology is also in Nebraska and Chem Nuclear is in  
5 North Carolina.

6 (Slide) So, with that, I'm over on page  
7 7.

8 Another approach that we took partway  
9 through the review, we thought it would probably be a  
10 good opportunity if we could visit with some of the  
11 people that developed the PLASAR document. They  
12 struggled to put that mock application together. So  
13 we called up both Rogers Associates and Ebasco and  
14 invited them in here to give us their views. We were  
15 successful in meeting with Rogers and Associates.  
16 Ebasco's team was not assembled at that point in time.  
17 So, we were unable to meet with them.

18 We took another look at the issue also.  
19 We took advantage of several workshops that the NRC  
20 has conducted with the agreement states over about the  
21 last six months. In June of this year, Mike Tokar's  
22 staff in Low Level Waste put on a one day workshop  
23 with all of the agreement states. We have every six  
24 months a meeting with the agreement state regulators.  
25 So, that was an opportunity to hear other views and

1 get some feedback on that.

2 A second opportunity that, in fact, was  
3 completed quite recently was the Nebraska workshop.  
4 September 12th and 13th, Nebraska requested us to come  
5 out and give them an in-depth review of the standard  
6 review plan process and answer their questions.  
7 Again, Mike Tokar and his staff went out there for a  
8 two day workshop in Nebraska. Again, that was an  
9 opportunity for good back on this process.

10 (Slide) I'm on page 8 now.

11 I put this slide in here to go over the  
12 structure of the standard review plan. Both the  
13 review plan and the standard format and content are  
14 ten chapters. They start out with general  
15 information, site information, go through design,  
16 operational information, end up with quality assurance  
17 and financial assurance. They're all structured the  
18 same way, as you see on this chart. This is  
19 consistent with what we did in NRR, in NUREG-0800 in  
20 terms of a standard review plan.

21 You start out with the first of which is  
22 just defining area responsibilities within the  
23 Commission. The second defines whatever that  
24 technical area of concern is. The third is the actual  
25 review procedures and the fourth one, which is a key

1 one, identifies the acceptance criteria, whatever that  
2 particular technical chapter is.

3 I'd like to point out that the Comport  
4 Review focused on the regulatory requirements. That's  
5 where we found a number of the issues that you see on  
6 the paper. Also, in that acceptance criteria chapter  
7 you'll find regulatory guidance, which refers to a  
8 number of the guidance documents the staff has put  
9 out, and then finally regulatory evaluation criteria  
10 which lists one acceptable way of performing whatever  
11 that technical activity is.

12 The fifth and final part of this standard  
13 structure is the evaluations and findings, which is  
14 just a mini safety evaluation report for that  
15 particular topic.

16 COMMISSIONER CURTISS: John, just a point  
17 of clarification here. In view of the way the SRP is  
18 structured, is it envisioned for the various technical  
19 chapters that the reviewer for each chapter would  
20 pretty much be able to review that chapter independent  
21 of and freestanding from any other chapter that's  
22 under review or what's the connection between those  
23 reviews?

24 MR. GREEVES: You're touching on an issue  
25 that we ran into with the states. By and large, a

1 reviewer ought to be able to review that chapter,  
2 although we do reference other chapters where  
3 appropriate, touching on an area I'll get to in terms  
4 of the states. A problem in writing one of these  
5 documents is how do you avoid redundancy. The heat of  
6 that is already referenced to other sections. So, a  
7 goal ought to be that you can review your chapter by  
8 yourself, however recognizing that there are a number  
9 of other chapters that may provide input to your  
10 chapter and what we've done is cross referenced as  
11 much as possible.

12 Is that an answer to your question?

13 (Slide) Okay. I am moving over to page  
14 9.

15 Just to start out here, the results of the  
16 review, basically what we have concluded is that the  
17 standard review plan is not broken. There are some  
18 problem areas which we will go over. The first of  
19 these, Dorothy Michaels from OGC will address these  
20 issues in the Comport area.

21 MS. MICHAELS: Okay. For our analysis, we  
22 reviewed both the standard review plan and the  
23 standard format and content guide to determine whether  
24 or not these documents would demonstrate compliance  
25 with Part 61.



1           In four subject areas of the SRP, we found  
2           that the regulatory requirements section referenced an  
3           inappropriate requirement to Part 61, thus it would be  
4           out of compliance with Part 61. The four subject  
5           areas are meteorology and climatology, geology and  
6           seismology, radionuclide releases during accidents and  
7           unusual operational conditions, and quality assurance,  
8           quality control.

9           For the first item, meteorology and  
10          climatology, in Chapter 2 of the standard review plan,  
11          under the regulatory requirements section, it  
12          referenced an inappropriate requirement. It  
13          referenced Part 50. Well, there's nothing in Part 61  
14          that requires the applicant to comply with Part 50.  
15          Therefore, the standard review plan went beyond what  
16          is needed to demonstrate compliance with Part 61.

17          Also in Chapter 2 of the standard review  
18          plan for geology and seismology, again the regulatory  
19          requirement section referenced Part 50 and 100.  
20          Again, there's nothing in Part 61 that requires the  
21          applicant to comply with either Part 50 or 100. So,  
22          the standard review plan here went beyond what is  
23          necessary to demonstrate compliance with Part 61.

24          The third item was found in Chapter 6 of  
25          the standard review plan. That dealt with

1 radionuclide releases during accidents and unusual  
2 operational conditions. Here the regulatory  
3 requirement section referenced Part 20. Well, Part 20  
4 only deals with planned and deliberate releases and  
5 expected accidents. Part 61 does indeed reference  
6 Part 20, however it applies a limit on Part 20. It  
7 applies to likely accidents.

8 Well, a careful reading of the standard  
9 review plan calls for consideration of a full range of  
10 accidents, thus including unlikely accidents. So,  
11 again, the standard review plan went beyond what is  
12 needed to demonstrate compliance with Part 61.

13 The fourth and final point was found in  
14 Chapter 9 of both the standard review plan and the  
15 standard format and content guide. Here, these  
16 documents required the applicant to follow a quality  
17 assurance program. Well, Part 61 calls only for a  
18 quality control program and what is considered audits  
19 and managerial controls. Since the standard review  
20 plan and the standard format and content guide calls  
21 for a more comprehensive program than what is  
22 referenced in Part 61, the standard review plan and  
23 the SF&C go beyond what is needed to demonstrate  
24 compliance with Part 61.

25 (Slide) In addition to these four

1 items -- could we have the next slide, please -- we  
2 found other less significant items scattered  
3 throughout both documents that gave the implication or  
4 suggestion that we had comport items. For example,  
5 there were imprecise statements where we require the  
6 applicant to commit to NUREG-3343. Also, there are  
7 words that are of an obligatory nature, "comply,"  
8 "require," "must." And since these are guidance  
9 documents and not requirements, these would have to be  
10 clarified for the record.

11 Well, this ends the conclusion on comport  
12 items and John will continue with the PLASAR  
13 experience.

14 CHAIRMAN CARR: Let me ask you, when you  
15 say "significant," how significant were those I think  
16 in the applications that are being put together or  
17 have been put together?

18 MR. GREEVES: Are you referring to these  
19 four items?

20 CHAIRMAN CARR: Yes. It says -- you said  
21 these are significant and I'm trying to find out how  
22 significant or what was the significance.

23 MS. MICHAELS: Well, the -- go ahead.

24 MR. GREEVES: I think I can put some  
25 perspective on it.

1 MS. MICHAELS: Okay.

2 MR. GREEVES: These were the most  
3 significant items that we covered. We had an  
4 opportunity to discuss these with the states when we  
5 met with them. Let me give you an example, the  
6 geology and seismology one. We brought this issue up  
7 with the three states that we met with and California  
8 told me that they didn't see it as that big a deal.  
9 They understood what was needed and it wasn't a  
10 problem for them. I think pretty much the same answer  
11 was delivered by Pennsylvania. However, this issue  
12 was raised quite vigorously by Texas. So, it depends  
13 on what entity you're talking about. I think as most  
14 of us are aware, there are issues regarding seismology  
15 and geology in the Texas site. So, that's part of why  
16 they raised that. So, it varies depending on what  
17 site you're talking about.

18 None of them that I can recall raised the  
19 meteorology, climatology issue. We basically caught  
20 that one. None of them complained about the releases  
21 of radioactivity for Part 20. That's one that we  
22 encountered ourselves. And as far as the quality  
23 assurance one, it turns out that all of the states  
24 are, in fact, doing quality assurance. They like it.  
25 We've been out giving them workshops regarding our

1 guidance documents on that and they all are proceeding  
2 very well in that arena. So, in that sense the impact  
3 is not that great.

4 We had a threshold of what we thought the  
5 comport issues were here and we wanted to honor what  
6 you asked us to do, which was flag what were comport  
7 issues. But I'd say at least three of these are not  
8 things that have been troubling to the states.

9 CHAIRMAN CARR: Okay. These are things we  
10 would want in there anyway. It's just a case you had  
11 nothing else to reference to refer them to.

12 MR. GREEVES: That is accurate.

13 CHAIRMAN CARR: Okay.

14 MR. PARLER: I think there's one other  
15 point that I would like to make, at least elaborate  
16 on. Even though there may not be any major disconnect  
17 between the applicants or potential applicants and the  
18 regulatory staff at this time, if you have differences  
19 in the documents such as these four, you may have some  
20 other people that participate later on. So that would  
21 provide a fertile grounds for debate. So, if there's  
22 anything like this that could be clarified, I think it  
23 should be clarified.

24 CHAIRMAN CARR: I understand that, yes.

25 MR. GREEVES: (Slide) With that, I

1 believe we're up to page 11.

2 I'm going to describe a little bit of the  
3 experience with the PLASAR work that the staff  
4 performed. First, I'd like to point out that in  
5 working with DOE on the PLASAR review, the staff was  
6 really focusing on the middle chapters in the standard  
7 review plans, Chapters 3 through 7. It basically  
8 addressed the design issues associated with these  
9 alternatives. It did not address things like siting,  
10 et cetera. They basically had a fictional site, so  
11 the staff effort was really on the design-related  
12 aspects.

13 The result of that work by the staff was  
14 we did not find any comport or inconsistencies as a  
15 result of this review. However, as you might imagine,  
16 we did find a number of areas where based on  
17 experience, since these documents were put out,  
18 working with the states, comments from the states,  
19 found a number of areas where we can significantly  
20 improve this document. It's really similar to our  
21 experience in NRR when we first put out those standard  
22 review plans years ago. They obviously were revised  
23 and you improve them significantly over time. So,  
24 we've had a couple of years of experience with this  
25 and California has had an opportunity to get an

1 application under process.

2 So, with that, we will be able to  
3 significantly make improvements as a result of the  
4 PLASAR experience.

5 (Slide) I'm going to move on to page 12.

6 I'd like to point out that the states are  
7 using these documents. That's one of the things that  
8 was very clear when we met with them. California and  
9 others, including Nebraska, are using these as good  
10 baseline documents to help them in their review  
11 process. They're happy with the documents as they  
12 exist at the present time for the most part. They  
13 consider them a good baseline document and it really  
14 does constitute a road map. We discussed that with  
15 them.

16 One thing I note is it's a little tough  
17 for them to organize their teams. They run into this  
18 problem you mentioned to me a few minutes ago about  
19 compartmentalizing their reviews. It becomes tough to  
20 make sure that all the consultants that you're hiring  
21 can jump from their section to another section in  
22 terms of getting the right input to be able to do  
23 their job and that's a tough job for them to manage.

24 In the interaction with the states, it was  
25 quite constructive to have that type of a process of

1 us listening to their comments, complemented our own  
2 efforts. They were quite appreciative of the  
3 opportunity to sit down and meet with us and go over  
4 this.

5 I'll give a few examples of some of the  
6 comments that the states came in with, the first of  
7 which is treatment of technical detail. As you go  
8 through this, and I and I'm sure the others that went  
9 through it, it's uneven. It's obviously been written  
10 by a number of different technical people and that's  
11 an area that can significantly be improved.

12 An area that it focused on also was the  
13 basis of findings. One of the things in particular  
14 California mentioned to us was that they would prefer  
15 to see more of a definition of you make a funding,  
16 what's the basis for that finding? Just don't tell me  
17 that's your answer. So, that's an area that could  
18 receive considerable improvement.

19 The bottom one of this slide that we have  
20 in front of us, which is performance assessment,  
21 virtually all of the states are asking for more  
22 information on the performance assessment front. I  
23 would like to mention that we recently had a workshop  
24 last week and invited the agreement state regulators  
25 in and it was quite successful as a hands-on



1 opportunity for people to work with models.

2 In addition to that, over the past couple  
3 of years the staff has worked with Sandia and we  
4 published five additional performance assessment  
5 documents. So, those will be obviously incorporated  
6 into the standard review plan, processing references.

7 As a result of this interactions, we all  
8 agreed talking to the states ourselves that these  
9 revisions incorporation would result in a much  
10 improved road map of the process for licensing one of  
11 these facilities.

12 (Slide) I'm on page 13 now.

13 I'd like to point out, as I mentioned  
14 earlier, our conclusion is that the standard review  
15 plan is not broken. We need to make some changes, the  
16 first of which was mentioned by Dorothy, the four  
17 comport items. It is inappropriate for us to refer to  
18 a requirement that is not tied to Part 61. So, we  
19 need to address that. As far as the conclusion on the  
20 PLASAR review, we did not encounter any  
21 inconsistencies in that, although we can make  
22 significant improvements.

23 The road map, what we have out there now  
24 is serving those that have the burden at the present  
25 time of reviewing an application and those that are

1 going to follow can benefit from improvements we'll  
2 make with revision.

3 As far as the more restrictive criteria,  
4 the one topic that fell into this category was the  
5 quality assurance area and we feel that that is an  
6 area that should be considered as a criteria for  
7 inclusion.

8 (Slide) With that, let's go over to page  
9 14.

10 As far as our recommendations for future  
11 activities, what we are looking to would be to revise  
12 what we call the comport items, the ones that don't  
13 align with Part 61, that we would revise those by  
14 December, that we'd do a quick review of the standard  
15 review plan and put out the next revision capturing  
16 those items that are of highest importance.

17 Along with that, the next item, we would  
18 put out a letter to the states quickly, within a few  
19 weeks of getting feedback from you folks on what our  
20 process is that we are going to revise the documents,  
21 identify to them what the comport issues are, and  
22 alert them that we would be completing that in the  
23 December time frame. That would be our proposal.

24 As far as the quality -- Commissioner  
25 Curtiss, do you have a question?

1 COMMISSIONER CURTISS: No, go ahead.

2 MR. GREEVES: As far as the quality  
3 assurance item, we recommend that that be folded into  
4 a rulemaking process and obviously that's a longer  
5 term project. We would also look to maybe capture a  
6 few other items that we've been talking about,  
7 including the issue of the above-ground vault and also  
8 any revisions to Part 20 for the whole body  
9 equivalent, those criteria. We might be able to do  
10 all that in one effort.

11 And the last item on this page would be  
12 make other major revisions recommended by the staff.  
13 We had already planned to revise the standard review  
14 plan by the end of summer of next year. So, that  
15 would be the schedule for revising the rest of the  
16 items.

17 (Slide) I have included the last slide.  
18 It's a little busy. I didn't intend to put it up, but  
19 it's just basically there to give a little background  
20 information on the types of skills we estimated were  
21 needed to one of these reviews back in '87 in our of  
22 our guidance documents.

23 So, at this point, we would be happy to  
24 answer any questions on the paper and this brief.

25 MR. BERNERO: Excuse me, Mr. Chairman.

1 I'd like to reinforce something that John said now  
2 that he's concluded. On the rulemaking arena, I think  
3 you recognize we need a clarifying rulemaking in Part  
4 61 for this issue of whether or not at surface  
5 disposal without soil over it is permissible. That is  
6 clearly the intent of the regulation, but that's not  
7 the way the words came out.

8 I have talked to the Office of Research  
9 about a rulemaking agenda for this for Part 61 that  
10 could be addressed with some priority. One of the  
11 difficulties with it is we have a tendency with these  
12 other things, like quality assurance and other things  
13 that are desireable, that, "Well, as long as we're at  
14 it, let's add this one and that one." So, we need to  
15 discipline ourselves to have a short-term or high  
16 priority rulemaking that has the necessary minimum  
17 without getting too many amendments on it.

18 So, you can expect to see a rule in the  
19 near future, a proposed rule that will certainly pick  
20 up the at surface disposal issue, I would say, would  
21 certainly take care of the QA issue and might carry a  
22 few other things with it.

23 CHAIRMAN CARR: On that last page, I  
24 assume those lengths of times are cumulative, so they  
25 add up to a little more than a year?

1 MR. GREEVES: Yes. You look over in the  
2 right-hand column and you see the 418 staff weeks over  
3 there. Basically, you add it up, it ends up being  
4 8 FTE and that's the guidance we gave the agreement  
5 states some time ago in terms of what they should plan  
6 on doing or budgeting for in their reviews. It seems  
7 like --

8 CHAIRMAN CARR: But the total time is that  
9 summary on the footnotes there, I assume.

10 COMMISSIONER CURTISS: Sixty-one weeks.

11 MR. GREEVES: No, those are -- yes, those  
12 are total times in terms of --

13 CHAIRMAN CARR: Sixty-one weeks from start  
14 to finish.

15 MR. GREEVES: -- when you get to the EIS.  
16 Yes. Actually, these are the length of times to  
17 conduct the various pieces labeled up top, the issue  
18 of the draft SER, EIS, correct.

19 CHAIRMAN CARR: And that's sequential.  
20 You can't collapse that any.

21 MR. GREEVES: No, I don't think so.  
22 Basically the Amendments Act called for us to complete  
23 this action within 15 months. This NUREG-1274 shows a  
24 time chart with the sequence in it and it calls for us  
25 to finish the SER process within that 15 month time

1 frame.

2 CHAIRMAN CARR: Okay. Is that it?

3 MR. GREEVES: Yes.

4 CHAIRMAN CARR: Questions, Commissioner  
5 Curtiss?

6 COMMISSIONER CURTISS: Yes, I do have a  
7 handful.

8 Let me begin with what you're proposing on  
9 those regulatory requirements where you've been  
10 unable -- those areas that you've identified where  
11 you've been unable to track them back to a regulatory  
12 requirement. I take it what you're suggesting here  
13 and in the SECY paper is that in those four specific  
14 areas we would -- let's put QA aside for a minute and  
15 focus on the first three.

16 In those three areas, you would reiterate  
17 in the SRP that we really do mean that what we have  
18 asked for in those three areas is intended to be  
19 guidance and not a requirement.

20 MR. GREEVES: Correct.

21 COMMISSIONER CURTISS: Clarify a point I  
22 guess that I'm having a difficulty with. Where we  
23 haven't established any technical requirement in the  
24 regulations itself, themselves, what is the basis for  
25 providing guidance on topics that you can't track back

1 to the regulations? I'm not disputing the particular  
2 technical merits of meteorology and seismology and the  
3 first three that you've identified, but I guess I'm  
4 asking a question more that maybe goes to the legal  
5 question. What is the basis for saying that this  
6 guidance ought to be provided by us where you can't  
7 track it back to a regulatory requirement?

8 MR. PARLER: We have the vague -- you did  
9 say it goes more to legal. I suppose that's why I'm  
10 answering. You have very general standards, in this  
11 case, 61.23 for the issuance of a license. I suppose  
12 Mr. Greeves said earlier that one of the comments that  
13 they got from the states was to be more specific about  
14 what has to be done to meet these standards. We have  
15 the very general standard not inimical to the common  
16 defense and security and for the public health and  
17 safety that we have five or six things, areas that are  
18 listed.

19 So, this is a problem that is closely akin  
20 to some of the problems that we have or regulatory  
21 challenges that we have in the reactor license area,  
22 one of which is on appeal now in the Seabrook case  
23 about how we go about relating one thing to another in  
24 the emergency planning area.

25 So, there is that basis. Obviously, it's

1 obvious to me if something is so significant and there  
2 is something to say about it from a regulatory  
3 standpoint, it should be identified in the  
4 regulations. That leads into the area of regulations  
5 which prescribe performance objectives and  
6 prescriptive regulations, something that the  
7 Commission will hear more about, I guess, in a couple  
8 of weeks.

9 But my specific answer to your question  
10 is, in this case at least, the general standards that  
11 we have for the issuance of license in Part 61.23.

12 COMMISSIONER CURTISS: Okay. I guess I'm  
13 not troubled from a technical standpoint if what  
14 you're saying here is that these three areas that  
15 we've identified, the first three are issues that have  
16 to be addressed in order for us or an agreement state  
17 to have a sufficiently thorough and comprehensive  
18 explanation of what they propose in order to meet  
19 61.23. But I gathered from what you said that these  
20 are three areas where you couldn't track it back to  
21 that general requirement of 61.23?

22 MR. GREEVES: No. I think each of these  
23 areas can be tracked back to 61.23 or other sections  
24 of the regulation. What you can't track back is the  
25 specificity of requiring Part 50 or Part 100. That's



1 the problem.

2 CHAIRMAN CARR: Reference the different  
3 reg that --

4 MS. MICHAELS: Meteorology and  
5 climatology, for example, in conjunction with 61.23  
6 plus 61.12, it's found in the regulation.

7 COMMISSIONER CURTISS: So you're saying  
8 that meteorology and seismology and --

9 MR. GREEVES: They're in here.

10 COMMISSIONER CURTISS: -- issues that are  
11 addressed are matters that would have to be addressed  
12 in an application, but what you're proposing here is  
13 to emphasize that in referencing the Part 50  
14 requirements, and Part 100 in the case of siting, that  
15 you are really offering that up as guidance,  
16 emphasizing it as guidance --

17 MR. GREEVES: Correct.

18 COMMISSIONER CURTISS: -- and if they come  
19 in with some alternative way, to meet that --

20 MR. GREEVES: Yes. That is accurate. The  
21 tie back to the siting criteria that's in Part 61.50  
22 requires them to avoid areas where you have tectonic  
23 processes such as faulting seismicity, et cetera.  
24 Well, the investigation process for that is what the  
25 applicant and, in fact, the reviewers need to

1 understand so we point to this location being Part 50,  
2 Part 100 where an approach to doing those  
3 investigations is identified. That's a good starting  
4 point.

5 I think that was understood by California,  
6 for example. They said that they understood that  
7 that's what our intent was.

8 COMMISSIONER CURTISS: Okay.

9 CHAIRMAN CARR: The original writer  
10 referenced what he knew best.

11 COMMISSIONER CURTISS: Or what was  
12 available, I guess.

13 MR. BERNERO: Yes. Yes. Absent that,  
14 what else is there? We have, in the past, confronted  
15 the very same issue as in Part 72 and gone on to  
16 incorporate the Part 50/100 requirements right in Part  
17 72, even though at the very outset of rulemaking we  
18 felt that that was more than was necessary. But there  
19 was no alternative. There was no seismic category to  
20 code, so that we ended up with that one. Most of the  
21 comments back in those days were that's something that  
22 everyone understands. It's a clear code.

23 COMMISSIONER CURTISS: I gather one of the  
24 concerns that arose when this issue first came up is  
25 that by tying it to the Part 50 requirements,

1 particularly on siting and seismology, that you may be  
2 establishing a set of requirements for low level waste  
3 facilities that really was developed with reactors in  
4 mind, much more stringently so.

5 Two questions. One, is there anything in  
6 10 CFR Part 40 with mill licensing that addresses this  
7 issue or was Part 50 the only area where that came up?

8 MR. GREEVES: My understanding is we have  
9 some guidance for seismological work in the mill  
10 tailings area. So, it's not in the regulation.

11 Paul -- if Paul Lohaus were in the  
12 audience, maybe he could tell me.

13 Paul, is there anything in Part 40 on  
14 seismicity for the mill tailings? I know we have  
15 guidance for reviewers in the mills area as basically  
16 out of the Part 50 approach.

17 MR. LOHAUS: I believe there's a --

18 CHAIRMAN CARR: Want to identify yourself,  
19 Paul?

20 MR. LOHAUS: Paul Lohaus. I'm Chief of  
21 the Operations Branch.

22 I don't recall specifically in terms of  
23 the regulation itself, but I do believe we do have  
24 guidance that does address that area. But it's done in  
25 a more general context. It doesn't refer back

1 specifically to Part 50 or Part 100 requirements.

2 COMMISSIONER CURTISS: There's nothing we  
3 could use there rather than the Part 50 reference that  
4 might be more akin to what we're talking about here  
5 with mill licensing?

6 MR. LOHAUS: I think what I'd like to do  
7 is go back and --

8 COMMISSIONER CURTISS: Okay.

9 MR. LOHAUS: -- look at that and see what  
10 we have in that area and then see if, in fact, that  
11 would be applicable and what the link would be.

12 MR. MALSCH: There is at least one  
13 reference to Part 100 seismic criteria in Part 40,  
14 Appendix A.

15 CHAIRMAN CARR: As I remember, the real  
16 discussion was between California and the contractor,  
17 wasn't it, how much was applicable and how much it was  
18 going to cost to do what the NRC required?

19 MR. GREEVES: Yes. There was a multi-  
20 party dialogue in California. You've got the  
21 contractor out there and you've got the regulator and  
22 then you've got the CAL RAD group which is Al  
23 Pasternak's group that wrote the letter. One is  
24 watching the other. So, that's the dialogue that took  
25 place there.

1 I think over time -- for example, the  
2 Nebraska application is, in fact, much larger than the  
3 California application and people are learning that  
4 basically it takes a lot of information to support  
5 these applications. All the regulators we -- excuse  
6 me, the two regulators being California and  
7 Pennsylvania, told us that they didn't think we asked  
8 for too much information. They liked what we asked  
9 for. In fact, they were worried about not asking for  
10 enough, because if you didn't you would put the burden  
11 on their reviewers and they'd have to go back with  
12 more rounds of questions.

13 COMMISSIONER CURTISS: Let me turn to the  
14 fourth area that you've identified and that's QA/QC.  
15 I gather from what you laid out here in the SECY paper  
16 that the current regulation is limited to QC and that  
17 may have been an inadvertent deletion of QA as we  
18 understand the importance of those two terms in the  
19 reactor licensing context.

20 I guess there I have the same question.  
21 What you're proposing to do here is to expand the  
22 reference in Part 61 to include both QA and QC, sort  
23 of on the same principle that we do in the reactor  
24 arena, that those are two very important parts of the  
25 overall QA/QC program.

1           The question that I have is this.  
2       Where -- and is arises from your discussion in the  
3       reactor context. Is it appropriate to take the QA/QC  
4       scheme for the reactor context which is primarily  
5       engineered features and apply that here in the context  
6       of what is basically a geologic system?

7           MR. BERNERO: I wonder if I could speak to  
8       that because we have this problem in reactor QA, we  
9       have this problem in fuel cycle QA and waste disposal  
10      QA. For all of these systems, and especially for  
11      reactors, QA should be applied in a fashion  
12      commensurate with the importance to safety. It is a  
13      graded approach, whether it be for reactors or waste  
14      disposal. It is indeed appropriate for things like  
15      geologic disposal or the low level waste which is sort  
16      of a mixture of engineering and near surface disposal.  
17      It can be done and that's what we would hope to do  
18      with the regulatory clarification. It is not simply  
19      QC and it is an appropriate level of quality assurance  
20      with an appropriate level of quality control.

21           COMMISSIONER CURTISS: And you'd lay out  
22      the distinction between this and reactors in the  
23      proposals to rulemaking?

24           MR. BERNERO: Yes.

25           MR. GREEVES: It turns out that this was

1 an early on dialogue we had with all of the agreement  
2 states and we put out a guidance document on quality  
3 assurance for low level waste disposal. It embraced  
4 the 18 point criteria that you'll find in Part 50.  
5 However, it was modified to recognize that you were  
6 dealing with a low level waste disposal facility. It  
7 does embrace the graded approach that Bob mentioned  
8 and, as I mentioned earlier on, people seem to be  
9 happy with this approach and they're using it.

10 COMMISSIONER CURTISS: Okay. I guess I  
11 have just two final questions, one question that I  
12 raised earlier.

13 When the states go through their module by  
14 module review of the SRP for a particular application,  
15 do we have a document that tells them -- that takes  
16 Part 61 and breaks it down into the requirements that  
17 are established in Part 61 and then traces it to the  
18 relevant module so that the reviewers that are working  
19 in their own little compartment know what the  
20 connection is to the other compartments in the other  
21 technical chapters in the SRP?

22 MR. GREEVES: What the staff did, it's  
23 sort of that structure diagram we had back earlier.  
24 What the staff did in each chapter, in each one of  
25 these SRPs, the first thing that they identified was

1 anyplace in Part 61 where this topic -- if it's  
2 closure, for example, they cited anyplace in Part 61  
3 where closure is addressed. So they gave the reader,  
4 if he was going to work out of that one chapter, gave  
5 him a ready reference on all the citations in Part 61.  
6 So that was an attempt to do that.

7 The difficulty that I've seen that people  
8 have, our staff, others, is where do you get your  
9 input for your chapter. And so, if you're working  
10 with the closure process, you may need to know  
11 something about, you know, the seismic issue for long  
12 term, what kind of erosion protection barriers did the  
13 people up in chapter 3 provide.

14 In scratching my head over this issue,  
15 what I think it really takes to pull this together is  
16 strong centralized management of the review so that  
17 you've got somebody sitting on -- looking at the thing  
18 as an overview and coming along and talking to the guy  
19 who is describing the site and talking to the guy who  
20 is designing the closure features and making sure that  
21 there's communication between those two.

22 COMMISSIONER CURTISS: Yes. I guess what  
23 I have in mind when we talked about the road map a  
24 number of months ago was that you'd have a document  
25 that would lay out the requirements in Part 61 that



1 have to be met in order to make the overall finding of  
2 adequacy.

3 Take your particular example on closure.  
4 The document would say to the reviewer, and as you  
5 pointed out some of the states may not have reviewers  
6 that are as sophisticated in using the SRP process as  
7 others might have, but that would lay out for the  
8 individual chapter reviewer, "In order to make the  
9 finding on closure, here are the three or four  
10 chapters or the two or three or whatever that you have  
11 to go to in order to make that overall finding." Do  
12 we have anything like that?

13 MR. GREEVES: Not that I know of. I think  
14 it's probably in a few, but not all of them in terms  
15 of a road map telling you, the reviewer, the chapter  
16 of the design, where else you have to go. It's an  
17 area that I think we could consider in the future.

18 MR. BERNERO: Yes. I was just going to  
19 say, John, wouldn't it be fair to say that each  
20 chapter of the standard review plan lays out at least  
21 the minimum evaluation findings and in theory --

22 MR. GREEVES: It does for that chapter.

23 MR. BERNERO: -- the sum of all those is  
24 the grist for the integrated finding in light of all  
25 of these being true, the conclusive judgment over all

1 that it's acceptable or not acceptable, whatever the  
2 case may be, is based on that. But I don't think it's  
3 anything like what we're doing in high level waste  
4 where it's really almost like an exhaustive recipe.

5 COMMISSIONER CURTISS: One last final  
6 question. In an agreement state where the application  
7 comes in and the agreement state reviews it, are we  
8 involved at all in the review in an agreement state or  
9 what is the NRC's role?

10 MR. GREEVES: Only as asked.

11 COMMISSIONER CURTISS: Okay.

12 MR. GREEVES: California has been out  
13 there working this issue and they've sent in a couple  
14 of questions that we've responded to. They call us on  
15 the phone. They talk to us, they meet with us. So,  
16 it's on an upon request basis and there's been a  
17 limited amount of that so far.

18 COMMISSIONER CURTISS: Okay. That's all I  
19 have, Ken.

20 CHAIRMAN CARR: Commissioner Rogers?

21 COMMISSIONER ROGERS: Just a couple.

22 In SECY-90-331, you raised the question of  
23 whether rulemaking is necessary to set standards for  
24 accidents. You're not now recommending rulemaking to  
25 address the issue. Are you looking at other actions?

1 How do you stand on that?

2 MR. BERNERO: Could I speak to that one,  
3 John, because this is something that I have been  
4 discussing with the Office of Research.

5 The reference to accidents in the case of  
6 low level waste disposal, as a practical matter the  
7 only accident considerations of note are handling  
8 accidents of waste insofar as it might affect the  
9 operators of the site, the personnel actually handling  
10 material, or accidents at the time of receipt, storage  
11 and emplacement, let's say, that might involve a fire  
12 or something like that that could possibly lead to  
13 some dose off site. For material facilities at waste  
14 generators, we use a standard approach for setting  
15 emergency preparedness that sets the ability to  
16 achieve protective action guideline doses off site.  
17 That is a foreseeable accident, a hypothesized  
18 accident of some realism that could cause that kind of  
19 dose off site as the possible basis for emergency  
20 preparedness notification. That really appears to be  
21 what is needed here.

22 The reference to Part 20 is not a good  
23 one. I think guidance and possibly some rulemaking to  
24 clarify this point of the role of such accident  
25 hypothesis is what we need. It will be primarily

1 guidance, but it might involve one of these additional  
2 rulemakings that are referred to, a minor factor in  
3 the rulemaking.

4 CHAIRMAN CARR: But in the meantime  
5 they've got nothing to use.

6 MR. BERNERO: Right now, there -- yes,  
7 it's kind of cloudy what they're supposed to use  
8 because Part 20 is really a routine and expected  
9 activity. It's not the more farfetched accidents.

10 COMMISSIONER ROGERS: Also in that same  
11 SECY, the staff recommended another revision of the  
12 SRP in late '91 to address issues that remain after  
13 this revision presently under consideration. Do you  
14 have any idea what those issues might be in a further  
15 review, what they might be and whether they're being  
16 take care of in this revision?

17 MR. GREEVES: You're referring to the  
18 revision in '91?

19 COMMISSIONER ROGERS: Yes.

20 MR. GREEVES: The bulk of those would be  
21 on page 11, which is the PLASAR experience. These are  
22 the bulk of the issues that would be addressed in that  
23 time frame.

24 COMMISSIONER ROGERS: Okay.

25 MR. GREEVES: And also, these comments,

1 and we have a longer list of comments from the states  
2 and we have some meeting notes when we met with the  
3 states, would serve as ready reference material. As  
4 we go through the revision, to the extent we can, we  
5 want to capture the states' comments. So, both of  
6 those would be the source on input.

7 COMMISSIONER ROGERS: All right. Just  
8 coming back to this road map question again, I take it  
9 from the documents that you felt that the current  
10 documents provide a reasonably good road map but now  
11 just in the little dialogue here a few moments ago it  
12 seemed to me that you were receptive to the idea of  
13 some additional work in that direction. Is that  
14 correct?

15 MR. GREEVES: Well, the dialogue we had  
16 just a minute ago was helping an individual reviewer  
17 understand where else in the SRP itself he could find  
18 help in this process. It's certainly an area I  
19 personally feel we can improve upon. I wouldn't have  
20 called that the kind of road map I thought was meant  
21 originally.

22 COMMISSIONER ROGERS: I guess originally  
23 we were thinking about the applicants and the states.

24 MR. GREEVES: Okay. And I think that we  
25 certainly could achieve some improvement in that area

1 and we can put it as a highlighted item as the staff  
2 goes through this process. They're the ones that are  
3 best to do that sort of thing. As they go back and  
4 revise their chapter on infiltration, they're the ones  
5 who know best where they have to get input. So that's  
6 certainly a topic that we could work with as we go  
7 through the longer term revision.

8 COMMISSIONER ROGERS: Well --

9 COMMISSIONER CURTISS: My point here  
10 was -- road map, I guess in the license, means how do  
11 you get from point A to point B.

12 MR. GREEVES: Yes. That's what I took the  
13 original road map to mean.

14 COMMISSIONER CURTISS: The thought here is  
15 even though the review is structured in a  
16 compartmentalized way, I think from what you've said,  
17 I detect that the decisions that are made in one  
18 module will depend upon and perhaps have a bearing  
19 upon decisions that are made in other modules. It may  
20 be that the kinds of overall decisions that are  
21 reached on compliance with Part 61 need that kind of  
22 cross module consideration.

23 So, if you -- both for the benefit of the  
24 applicant in preparing the application and the state  
25 or us in reviewing it, if you have a document that

1 breaks down the SRP -- breaks down Part 61 into the  
2 various requirements that have to be met and the SRP  
3 modules that you have to go to in order to make those  
4 judgments, it seems to me that that would get you  
5 partway in the way of the direction of facilitating  
6 that review and answering questions that I think the  
7 states are having about what the connection is between  
8 various modules.

9 MR. GREEVES: Within the SRP document  
10 itself.

11 CHAIRMAN CARR: It seems to me that  
12 anybody that's going to undertake one of these  
13 construction efforts is going to have some overall  
14 supervisory guy like you're talking about that knows  
15 more about it than we do probably.

16 MR. GREEVES: In my individual  
17 perspective, that is the key, to get experienced  
18 people at the upper level who have been through a  
19 process like this and know it and can put it together.  
20 Every one of these people I've bumped into have run  
21 into what I call the compartmental problem. They hire  
22 a consultant who is real good at meteorology. So, I  
23 think we can do some of both.

24 COMMISSIONER CURTISS: I don't know of  
25 anybody at all who's done a recent SRP review of a low

1 level waste site and maybe that's the problem that the  
2 states are running up against. We have a lot of  
3 people that have done SRP reviews for reactor sites,  
4 but this is a new kind of review and the SRP that  
5 we've laid out here, it strikes me, may pose some  
6 challenges that are beyond --

7 CHAIRMAN CARR: California has probably  
8 done the most recent one.

9 MR. GREEVES: Yes. And California has  
10 brought in a number of consultants who've done  
11 regulatory reviews. So, they've got a big advantage  
12 when you pick up people like that who have done  
13 regulatory reviews, people that did the old NRR  
14 reviews. It's an experience that I think will help  
15 anybody get through a process like this, even though  
16 they haven't reviewed an actual low level waste  
17 license application. If they've reviewed something  
18 else and applied the similar process, I think it will  
19 help them immensely.

20 MR. BERNERO: But I understand  
21 Commissioner Rogers to be going towards something like  
22 a little more road map work that could be essentially  
23 the same thing as Commissioner Curtiss is talking  
24 about, a road map in the sense of what are all the  
25 things -- perhaps we could put it right in the front



1 of the standard format and content and standard review  
2 plan. What are all the things that you have to find  
3 in general and what requirements do you have to meet  
4 them and how do you go through this process to make a  
5 licensing finding a little bit more in that vein than  
6 plunging right into the standard review plan and let  
7 some wise manager discern that they have to do all  
8 that?

9 COMMISSIONER ROGERS: Well, it may be that  
10 when there are only one or two of these coming up at a  
11 time, that these experts that -- these wonderful  
12 people who have had experience in how to do these  
13 things can meet the needs. But if we get a sudden  
14 flurry of them all at one time, there may not be that  
15 kind of expertise available for everybody and the road  
16 map may be a really big help under a circumstance such  
17 as that. So, --

18 MR. BERNERO: Yes.

19 CHAIRMAN CARR: I can see the PERT chart  
20 with all the feedback loops.

21 COMMISSIONER ROGERS: We're not trying to  
22 create a new industry here. But I was just curious.  
23 Have you talked lately to ACNW on your thoughts on  
24 this road map question? They're the ones that raised  
25 it first with us and -- how do they feel about it now?

1 MR. GREEVES: I haven't talked to them  
2 very recently. We got their letter and gave them our  
3 response and pointed out basically that the standard  
4 review plan itself, standard format and content and a  
5 few other NUREGs, like the licensing review  
6 procedures, constitute what we thought was an adequate  
7 road map. In talking to the states that are chewing  
8 on this issue, they felt that it was a good road map  
9 for them, although when you do get into the details of  
10 it, there are some challenges that I think could be  
11 helped by some of the things that you've mentioned.

12 COMMISSIONER ROGERS: That's all I have.  
13 Thank you.

14 CHAIRMAN CARR: I guess I got a little  
15 lost in what we're going to do and when we're going to  
16 do it. In your recommendations page, I understand  
17 you're going to have item 1 done in December?

18 MR. GREEVES: That's the proposal, yes.

19 CHAIRMAN CARR: And the states notified?

20 MR. GREEVES: The states will be notified  
21 in advance.

22 CHAIRMAN CARR: Okay. And how are you  
23 going to go about it? What's the best way to notify  
24 the states?

25 MR. GREEVES: Write them a letter.

1 MS. SCHNEIDER: We'll write them a letter  
2 and detail all this information. We've covered it in  
3 meetings we've had with the states. So, we'll be  
4 getting them a letter out as soon as we have some  
5 information as to where we're planning on going and  
6 what we've identified as the issues.

7 CHAIRMAN CARR: I guess what I'm trying to  
8 figure out is that going to cause them to wait for  
9 something to come out or will it permit them to go  
10 ahead if they've been waiting?

11 MR. BERNERO: I'd say the latter.

12 MS. SCHNEIDER: Yes, I'd say the latter.

13 CHAIRMAN CARR: Okay.

14 MR. BERNERO: They'll know it's coming.  
15 It'll just forecast to them that it's coming.

16 CHAIRMAN CARR: Okay. Item 3, include the  
17 QA in Part 61. That's a rulemaking?

18 MR. BERNERO: Yes.

19 CHAIRMAN CARR: Two years?

20 MR. BERNERO: That's -- well, nominally  
21 that would be two years, but we're looking with the  
22 Office of Research to just bite this out in the most  
23 manageable form --

24 CHAIRMAN CARR: Is that one of those  
25 expedited rulemakings?

1 MR. BERNERO: Yes, to carry it a little  
2 more promptly through the virtue of certification.

3 CHAIRMAN CARR: One year and 11 months.

4 MR. TAYLOR: Notice how quiet I'm being?  
5 We're going to work on it.

6 MR. BERNERO: Be sanguine.

7 CHAIRMAN CARR: And make other revisions  
8 as planned?

9 MR. BERNERO: Yes.

10 MR. GREEVES: That is scheduled for  
11 completion next summer.

12 CHAIRMAN CARR: So, summer of next year?

13 MR. GREEVES: Yes.

14 CHAIRMAN CARR: All right. I understand  
15 that.

16 And as a matter of curiosity, how many  
17 staff weeks did it take to do what we've done already?

18 MR. GREEVES: You mean in terms of the  
19 comport review?

20 CHAIRMAN CARR: The whole -- yes, the  
21 whole thing you've done so far up to the analysis.

22 MR. GREEVES: I've asked the computer what  
23 the numbers are and it comes out .37 FTE to do the  
24 comport review. I think there's probably a little  
25 more than that into it.

1 CHAIRMAN CARR: I'd say you'd better check  
2 that program.

3 MR. GREEVES: Yes.

4 CHAIRMAN CARR: I'm not sure whether  
5 they've been filing their time.

6 MR. GREEVES: My guess is it's probably on  
7 the order of a half an FTE of direct time. There's  
8 quite a bit of management time that's been put into  
9 this also.

10 MR. BERNERO: But we're free.

11 CHAIRMAN CARR: When you were looking at  
12 the PLASAR reviews, did you review any above-ground  
13 disposal facility that wasn't covered by earth?

14 MR. GREEVES: No.

15 CHAIRMAN CARR: Okay. Any other  
16 questions?

17 Well, let me thank you for the informative  
18 briefing about the current status of conformity of our  
19 guidance on low level waste disposal facilities with  
20 the requirements of 10 CFR Part 61. I believe this  
21 exchange of information has been useful to the  
22 Commission, the staff, and the states which  
23 participated in this review.

24 Since 1982 when the requirements for  
25 shallow land disposal facilities were promulgated, the

1 technology for low level waste disposal facility  
2 design has advanced significantly. We must keep in  
3 mind that the guidance that we prepare for both the  
4 licensee and the reviewer must be clear and concise in  
5 order to help alleviate confusion and misguidance.

6 Staff has recommended today the standard  
7 review plan needs to be revised to emphasize the  
8 document is only guidance to Part 61. In addition,  
9 some flexibility needs to be provided for in the SRP  
10 as long as the applicant can explain and provide  
11 justification of the basis for the performance of the  
12 site and the design.

13 As a result of the PLASAR effort, the  
14 staff identified weaknesses in the standard review  
15 plans as well as identification of staff technical  
16 positions that need to be developed. Although reviews  
17 of this type are resource intensive, they're  
18 beneficial for both states and the NRC staff and  
19 should continue as needed.

20 On behalf of all the Commissioners, I  
21 would like to thank the staff for your presentation  
22 and for the careful and thorough work in this review.

23 As we consider the staff's  
24 recommendations, I urge my fellow Commissioners to  
25 provide their views on the matter as soon as possible

1 so that we may provide early notification to the  
2 states of any needed changes so as to not interject  
3 unnecessary uncertainty in the licensing process.

4 Any of my fellow Commissioners have any  
5 additional comments?

6 If not, we stand adjourned.

7 (Whereupon, at 3:09 p.m., the above-  
8 entitled matter was concluded.)  
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CERTIFICATE OF TRANSCRIBER

This is to certify that the attached events of a meeting  
of the United States Nuclear Regulatory Commission entitled:

TITLE OF MEETING: BRIEFING ON CONFORMITY OF GUIDANCE ON LOW LEVEL WASTE  
DISPOSAL FACILITIES WITH REQUIREMENTS OF 10 CFR PART 61  
PLACE OF MEETING: ROCKVILLE, MARYLAND

DATE OF MEETING: OCTOBER 1, 1990

were transcribed by me. I further certify that said transcription  
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CONFORMITY OF GUIDANCE ON LOW-LEVEL WASTE  
DISPOSAL FACILITIES WITH  
THE REQUIREMENTS OF 10 CFR PART 61

October 1, 1990

Presenters: John T. Greeves  
Dorothy Michaels

Contact:  
John T. Greeves, NMSS  
492-3344

## BRIEFING OVERVIEW

- 1) COMMISSION REQUEST
- 2) BACKGROUND ON GUIDANCE DEVELOPMENT
- 3) STAFF APPROACH TO THE REVIEW
- 4) STAFF CONCLUSIONS AND RECOMMENDATIONS

### COMMISSION REQUEST

- 1) COMPORT REVIEW
- 2) PROTOTYPE LICENSE APPLICATION SAFETY  
ANALYSIS REPORT INCONSISTENCIES  
(PLASAR)
- 3) ROAD MAP
- 4) MORE RESTRICTIVE CRITERIA

## BACKGROUND

- o STANDARD FORMAT AND  
CONTENT GUIDE AND THE  
STANDARD REVIEW PLAN 1/87
- o REVISION 1 1/88
- o QUESTIONS RAISED 12/89

## APPROACH TO REVIEW

- o MULTI-OFFICE REVIEW
  - OFFICE OF NUCLEAR MATERIAL SAFETY  
AND SAFEGUARDS
  - OFFICE OF THE GENERAL COUNSEL
  - OFFICE OF GOVERNMENTAL AND PUBLIC  
AFFAIRS

APPROACH TO REVIEW (CONT.)

- o ASSIGNMENTS
  - COMPLETE REVIEW BY 3 STAFF
  - SPECIFIC SECTIONS ASSIGNED TO OTHERS
- o INTERACTIONS WITH STATES
  - TEXAS
  - PENNSYLVANIA
  - CALIFORNIA

APPROACH TO REVIEW (CONT.)

- o INTERACTIONS WITH OTHERS
  - ROGERS AND ASSOCIATES
  - AGREEMENT STATE WORKSHOPS

## STANDARD REVIEW PLAN

1. REVIEW RESPONSIBILITIES
2. AREAS OF REVIEW
3. REVIEW PROCEDURES
4. ACCEPTANCE CRITERIA
  - REGULATORY REQUIREMENTS
  - REGULATORY GUIDANCE
  - REGULATORY EVALUATION CRITERIA
5. EVALUATION FINDINGS



## COMPORT ISSUES

### o SIGNIFICANT ITEMS

- METEOROLOGY AND CLIMATOLOGY  
(PART 50)
- GEOLOGY AND SEISMOLOGY  
(PART 50 AND 100)
- RELEASES OF RADIOACTIVITY  
(PART 20)
- QUALITY ASSURANCE (QA)/QUALITY  
CONTROL (QC)

### COMPORT ISSUES (CONT.)

- o LESS SIGNIFICANT ITEMS
  - IMPRECISE STATEMENTS
  - USE OF THE WORDS REQUIRE, MUST, ETC.

## PLASAR EXPERIENCE

- o DESIGN AND CONSTRUCTION
- o FACILITY OPERATIONS
- o SITE CLOSURE PLAN AND INSTITUTIONAL  
CONTROLS
- o SAFETY ASSESSMENT
- o OCCUPATIONAL RADIATION PROTECTION

## STATE COMMENTS

- o TREATMENT OF TECHNICAL DETAIL
- o REDUNDANCY
- o BASIS FOR FINDINGS (10 CFR 61.23)
- o RELEVANT SECTION IN REFERENCES
- o NUCLEAR POWER PLANT MENTALITY
- o PERFORMANCE ASSESSMENT

## CONCLUSIONS

- o COMPORT ITEMS
- o PLASAR
- o ROAD MAP
- o MORE RESTRICTIVE CRITERIA

### RECOMMENDATIONS

- o CORRECT COMPORT ITEMS
- o NOTIFY STATES
- o INCLUDE QA IN PART 61
- o MAKE OTHER REVISIONS AS PLANNED