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OFFICIAL TRANSCRIPT OF PROCEEDINGS

NUCLEAR REGULATORY COMMISSION

ADVISORY COMMITTEE ON NUCLEAR WASTE

**Title: MEETING: 119TH ADVISORY
COMMITTEE ON NUCLEAR WASTE
(ACNW)**

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UNITED STATES NUCLEAR REGULATORY COMMISSION'S
ADVISORY COMMITTEE ON NUCLEAR WASTE

JUNE 15, 2000

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This transcript had not been reviewed, corrected and edited and it may contain inaccuracies.

1 UNITED STATES OF AMERICA
2 NUCLEAR REGULATORY COMMISSION
3 ADVISORY COMMITTEE ON NUCLEAR WASTE

4 ***

5 119TH ADVISORY COMMITTEE ON NUCLEAR WASTE (ACNW)

6
7 Nuclear Regulatory Commission
8 Two White Flint North
9 Room 2B3
10 11545 Rockville Pike
11 Rockville, MD 20852-2738
12

13 Thursday, June 15, 2000
14

15 The committee met, pursuant to notice, at 8:31
16 a.m.

17 MEMBERS PRESENT:

18 B. JOHN GARRICK, Chairman, ACNW
19 GEORGE M. HORNBERGER, Vice Chairman, ACNW
20 RAYMOND G. WYMER
21 MILTON LEVENSON
22
23
24
25

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C O N T E N T S

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ATTACHMENT

PAGE

Regulatory Guides Review

326

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P R O C E E D I N G S

[8:31 a.m.]

1
2
3 CHAIRMAN GARRICK: Good morning. The meeting will
4 now come to order. This is the third day already of the
5 119th meeting of the Advisory Committee on Nuclear Waste.
6 The entire meeting will be open to the public.

7 Today, we will meet with John Greeves, director of
8 the division of waste management, to discuss items of mutual
9 interest. We will also review and discuss two draft Reg.
10 Guides, DG 1067, Decommissioning of Nuclear Power Reactors,
11 and DG 1071, Standard Format and Content for Post Shutdown
12 Decommissioning Activities Report. And we will probably be
13 spending most of our time today continuing our preparation
14 of ACNW reports.

15 Richard Major is the designated federal official
16 for the initial portion of today's meeting.

17 This meeting is being conducted in accordance with
18 the provisions of the Federal Advisory Committee Act. We
19 have received no written statements or requests to make oral
20 statements from members of the public regarding today's
21 session, and should anyone wish to do so, please contact the
22 committee's staff. And, also, if you participate, please
23 use the microphone, identify yourself and speak clearly.

24 Okay. Well, John, I think we are anxious to get
25 an update. We know you have had a busy week. We have been

1 a little bit tied up ourselves, so, we are anxious to talk a
2 little bit about what is going on what we might do with it.

3 MR. GREEVES: Good. Okay. Is this working?

4 Good. All right.

5 Good morning. I am going to go through the usual
6 topics that we cover and I think serve both of us well. I
7 had a couple of administrative ones. One first, we have had
8 a little bit of a reorganization. I believe the committee
9 is somewhat familiar with this. We moved one of our
10 programs, the uranium recovery program, from the division of
11 waste management to the fuel cycle safety safeguards group.
12 And, in doing that, we had to make some adjustments in the
13 staffing level within the three branches within the
14 division. And, as a result of that, in fact, you should
15 have a copy in front of you of the impact of that.

16 As far as the decommissioning branch, the only
17 change there, of course, Larry Camper is the branch chief
18 and Robert Nelson is a section leader and both these
19 individuals have been down to brief you in the past. A new
20 section chief was selected for a vacant position, Scott
21 Moore will be coming on a delayed basis. It is going to
22 take about three months for him to make the transition.
23 Scott is from the industrial, medical and nuclear safety
24 division, and he is an experienced section leader. He has
25 got a lot of experience with materials licensing and we look

1 forward to adding that level of experience to the
2 decommissioning group.

3 The next branch is the environmental and
4 performance assessment branch, which Tom Essig is the chief,
5 and I believe Tom briefed you yesterday. Tom comes to us
6 from NRR, he has got a strong background in health physics.
7 He has been with us for a while, and I believe he may have
8 been down to brief you in a meeting or two. This branch now
9 has performance assessment and integration, and an
10 environmental and low level waste project section. And poor
11 Tom was limping along with two vacant sections, so, we are
12 pleased to have filled both of those with people you are
13 well familiar with, Sandra Wastler is the chief of the
14 performance assessment integration section. You have known
15 Sandy for a long time, and we are pleased to have her
16 promoted to a section chief position. And then Charlotte
17 Abrams, one of your own staff at one point in time, was
18 chosen as chief of the environmental low level projects.
19 So, you can look forward to interfacing with both of them.

20 And then the high level waste branch, the result
21 of the reorganization moved the performance assessment
22 activities over into another branch to do a bit of a load
23 leveling. Obviously, Bill Reamer is the branch chief there,
24 and King Stablein and Dave Brooks, you are well familiar
25 with. So, the branch is a little bit smaller and a little

1 bit more manageable in the process.

2 This is going to force, and which I see as a good
3 thing, some integration issues, but, as you know,
4 performance assessment actually serves all three of the
5 program areas, high level waste, decommissioning, low level
6 waste. So, we think this is a bit more efficient and Joe
7 and I are looking forward to the opportunity to focus on a
8 few less issues with uranium recovery, moving on.

9 So, unless you have some questions, I just wanted
10 to update you on where that was.

11 MR. LARKINS: This is a bit of matrix now.

12 MR. GREEVES: We have always operated as a matrix.
13 Bill Reamer had the advantage of having a lot of the
14 performance assessment horsepower in his branch and didn't
15 have the matrix to cross. Decommissioning had the matrix
16 over to that branch to get the work done for
17 decommissioning. So, somebody is always matrixing, it is
18 just a question of efficiency. How can you put these
19 elements together, but carrying -- we basically have five
20 programs, or had five programs in the decommissioning
21 division, including uranium recovery, and each one of them
22 has its set of minefields associated with it. It is very
23 difficult to keep your eye on all that.

24 I think it was a good decision to move uranium
25 recovery off to fuel cycle, it is a Part 40 licensing

1 activity. They do a lot of that already. I think it will
2 help us have more focus and attention on the topics that
3 remain within the division.

4 CHAIRMAN GARRICK: John, just to give us a sense
5 of the size of the operations, what is the approximate FTE
6 or population of each of these branches?

7 MR. GREEVES: Joe knows the numbers better than I
8 do.

9 MR. HOLONICH: Decommissioning has about 30 FTE
10 associated with it. Environmental performance assessment is
11 approximately 25 FTE, and high level waste has about 32 FTE
12 in it.

13 CHAIRMAN GARRICK: Thank you.

14 MR. GREEVES: It is a little deceiving because you
15 add all that up, you don't get over a hundred, but we have
16 -- we actually over-hire some of these positions. So, how
17 many people do we have when you count the number of --

18 MR. HOLONICH: The division FTE count is at around
19 90, including six at the director's office, and the division
20 probably has somewhere about 100-102 in terms of staff on
21 board.

22 MR. GREEVES: And then you add to that the center
23 staff. So, it is a rather large group of people for us to
24 manage and that is without the uranium recovery program at
25 this point in time. So, we are looking forward to a little

1 bit tighter focus in that process. Okay.

2 CHAIRMAN GARRICK: Thank you.

3 MR. GREEVES: The second topic is your recent
4 letter on your plan and priority issues. We have responded
5 -- the Commission has responded to it. I just want to
6 remark that when I read it, I was very pleased with it. It
7 showed a lot of thought. Again, I was quite pleased with
8 what I read there. It looks like we are pretty much in
9 alignment in terms of the goals that we have in our plans
10 and what you have, and I see that as a good mesh. You got
11 the letter back from the EDO's office and I just wanted to
12 comment that --

13 CHAIRMAN GARRICK: Well, I think one of the things
14 we are learning is being more timely on getting input from
15 the division and the office, so that we have a good
16 information base to work from when we do the planning. I
17 think we had maybe greater success at doing that this time
18 around than ever.

19 MR. GREEVES: We, too, are going through much the
20 same process in putting these types of plans together, and
21 you get better at it over time. So, I will just give you
22 that feedback. So, like I say, I think your plans and ours
23 are in alignment in terms of relative priorities. Just one
24 thing, I am going to have to keep my eye on John Larkins
25 now. He might be getting encouragement to look for more

1 high level waste resources.

2 MR. LARKINS: Well, actually, I looked at --

3 CHAIRMAN GARRICK: We do have to keep our eye on
4 John.

5 MR. GREEVES: I have got to put an eye on him.

6 MR. LEVENSON: We did go through the list in
7 there. We are going to respond to Carl's letter. But there
8 are some things on here which were a little lower tier on
9 our priorities, so, we may not be able to. We wanted to get
10 some feedback and, so, we thought we should put the effort
11 on some of the areas. I don't have my list in front of me,
12 but we are going through all of them.

13 MR. GREEVES: It may pay. You are here all the
14 time. We could sit down and go over with you. But, as you
15 know, there is a tension over the high level waste
16 resources, they are a fixed set. So, I mean we can sit down
17 and talk about it.

18 MR. LARKINS: Well, some of these were not
19 necessarily in the high level waste area, there were other
20 things.

21 MR. GREEVES: I recognize that. The high level
22 waste one is the arena that, again, we are a bit concerned
23 about the resources, because there is a fixed set of
24 resources in that program area.

25 MR. LARKINS: Well, we assumed we just send you

1 the bill.

2 MR. GREEVES: You can send all the bills you want.
3 It is paying them that is a problem.

4 [Laughter.]

5 MR. GREEVES: Okay. The next item that I want to
6 touch is decommissioning, and, you know, we cover it every
7 time because it is one of your priority areas and one of my
8 priority areas. We are pretty much at the end of a two-year
9 run. The Commission put in place the rule on license
10 termination and asked the staff to go out and develop the
11 guidance and gave us pretty much a two-year run to put that
12 together, and we are pretty close to the end of that.

13 We had the last of a series of workshops on June
14 7th and 8th, earlier this month, on what we call the
15 technical basis document. It is the guts of the dose
16 modeling activities. It is an appendix to the standard
17 review plan. That workshop focused on dose modeling
18 activities and, with that, the staff plans to have a
19 standard review plan pulled together in the July timeframe.

20 I would commend that workshop to you, -- it was
21 transcribed, as all our workshops are, -- as an excellent
22 reference material. I understand you are pulling together
23 an October working group to go over dose modeling issues. I
24 think this workshop that was just completed on the 7th and
25 the 8th is a very good reference material.

1 It was well attended. EPA was in attendance, DOE,
2 Nuclear Energy Institute, EPRI, many of the utilities were
3 there, because they are focused on their license termination
4 plan reviews. The fuel cycle community was there with many
5 members, focused on the problems that they have. A lot of
6 architect engineers. Corps of Engineers was a part of the
7 group. Had a healthy contingent from the Agreement States
8 and the Non-Agreement States, because they are going to be
9 picking up a lot of the licensing activities over time.
10 Also, Argonne National Lab, who is responsible for the
11 development of the RESRAD code and my staff and Research.
12 So, it was a very good discussion.

13 There are still some debates, and there will
14 continue to be, but I see that as healthy. So, I am not
15 familiar with, you know, how much you were aware of that,
16 but, to the extent you can, you might want to get that
17 transcript and take a look at it. It is probably -- it has
18 got -- I want to go back over it, it has got a number of
19 topics that are still being debated in some part, and I
20 think that is healthy. So, I urge you to take advantage of
21 that.

22 MR. LARSON: It was the intention to be there, and
23 we were aware of the meeting and the topics, and had the
24 agenda, and had several of the papers that were presented by
25 the staff, but just for various reasons, people were unable

1 to attend it. You say the transcript is available?

2 MR. GREEVES: Yes.

3 MR. LARSON: It is going to be on LICET ADAMS --

4 MR. GREEVES: As with all our meetings.

5 MR. LARSON: Or is it going to -- is there another
6 source, Joe? That's it, it is on ADAMS?

7 MR. HOLONICH: I don't know.

8 MR. LARSON: Okay. Nick would know, right?

9 MR. GREEVES: Yes.

10 MR. LARSON: Okay.

11 MR. GREEVES: And Bobby Eid is in the audience. Do
12 you know the answer, Bobby?

13 MR. EID: I have a hard copy of the transcripts
14 already. I will be glad to provide you a hard copy of that
15 on loan basis.

16 MR. LARSON: That will be terrific, and if you can
17 give us two copies anyway, and Ray and I will study them.

18 MR. GREEVES: And that will be one FTE per copy,
19 right?

20 [Laughter.]

21 MR. GREEVES: A tough crowd.

22 SPEAKER: We can make our own.

23 MR. GREEVES: You have to get them first. Okay.
24 Enough banter.

25 Just a little topic associated with that, we did

1 have the document up on the web by May 15th, so that people
2 had a chance to look at it and come to the meeting, you
3 know, armed with their questions.

4 MR. LARSON: Nick sent that to us.

5 MR. GREEVES: Okay. So, we asked for comments to
6 be received by the 18th, because, as I said, our target is
7 we want this thing pretty much wrapped up in a package in
8 July, so, we received a number of comments at the meeting
9 and, you know, we may be getting a few more.

10 I talked about the large number of participants.
11 I am really pleased to see that, because these are the
12 people that are doing the work, and they come and they
13 contribute, and we learn a lot in these meetings.

14 The meeting also included a demonstration of
15 advances we have made with both RESRAD and DandD in the
16 meeting. It gave people a chance to see that process. And
17 it ended up in a roundtable discussion, so, as you look at
18 the transcript, I was able to sit in on the roundtable
19 discussion and people kind of let their hair down and said,
20 you know, this is the issues that I have, and a number of
21 constructive comments about you are going in the right
22 direction. So, it gives me a sense of feedback. Is this
23 something that is value to the community? And the answer is
24 yes, as you will see in the transcript.

25 Just a little advertising in terms of what we can

1 expect in terms of the code development. We have worked on
2 a probabilistic DandD Version 2 that should be available in
3 August. The same timeframe for the probabilistic update of
4 RESRAD that Argonne is working on through Research for us.
5 And, also, the probabilistic RESRAD-BUILD Version 3.0. All
6 of those should be available in August.

7 Following that, by October, the RESRAD and the
8 RESRAD-BUILD user's manual and documentation should be
9 available. And in December, the probabilistic DandD Version
10 2, site-specific dose analysis and associated documentation.
11 So, that is kind of the schedule we are on to have these
12 tools and their documentation available.

13 If there are no questions about that? I think the
14 workshop we just had, the one you had, or will have in
15 October will be a nice lead into a November 7 and 8 workshop
16 that we are planning to bring back the community that is
17 actually working various plans in terms of the license
18 termination rule. We have got a couple of volunteers,
19 Rocket Dyne in California and Nuclear Fuel Services down in
20 Tennessee will come in and kind of give us a rundown and we
21 are going to look for other volunteers, too, to show exactly
22 how are these tools being used. So, I just put on your
23 calendar in terms of your staff participating in the
24 November 7 and 8 workshop.

25 Following the development of the standard review

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1 plan, we have had a number of requests to update the NMSS
2 handbook for decommissioning. This is a handbook that
3 describes to a project manager how to get his job done. How
4 do I develop an EA? How do I put notices up about meetings?
5 And how do I work with very simple cases and the very
6 complex cases, which are what the standard review plan is
7 focused on?

8 The Agreement States are quite interested in this
9 document. Actually, the version we have now predates the
10 license termination rule, so, even some of the terminology
11 needs to be updated. So, we intend to turn to that, and we
12 are going to try and engage the states to see if they can
13 help us. We have a good relationship with the Conference of
14 Radiation Control Program Directors Decommissioning
15 Subcommittee, and we are working with them on topics such as
16 this, so, you can look forward to our development of the
17 handbook.

18 We believe that, as we have developed the standard
19 review plan over the two years, it has been very useful to
20 come to the committee and do briefings. We learn things, we
21 develop a better technique as we make these presentations to
22 you. Also, you have provided a series of comments to us on
23 the standard review plan, and we think that the briefings
24 and the comments have helped us perfect this document. Like
25 a lot of review plans, we will be revisiting it over time.

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1 But we feel comfortable and we have enjoyed some of the
2 comments we have gotten back from it.

3 In April, the staff also finalized NUREG-1700, it
4 is the standard review plan for evaluating nuclear power
5 plant license termination plans. We liberally referenced
6 the standard review plan for decommissioning in that
7 document. We didn't want to duplicate that text, so, there
8 is a lot of reference to the standard review plan that we
9 are completing this summer.

10 I am just going to keep moving. If you have got
11 comments or questions, let me know.

12 As far as decommissioning, let me focus a little
13 bit on reactor decommissioning. I think, as you are aware,
14 we have had three reactor license termination plans
15 submitted, the first of which was Trojan, the second was
16 Saxton and, mostly recently, Maine Yankee. Each of these
17 activities included a public meeting and, for context, they
18 varied in terms of extent of public involvement. I went to
19 the Trojan meeting and there were like one or two people
20 that attended that meeting. It was mostly the licensee, the
21 NRC staff and, you know, we had some discussion, but it was
22 on that level of interest. I mean we had, you know, EPA,
23 other federal stakeholders participating.

24 And then you compare that with the Maine Yankee
25 public meeting. I was unable to attend that, but it was

1 well attended, a lot of stakeholders and I think it went to
2 like midnight. So, there was a lot of interest in that
3 case. It gives you a flavor of the spectrum of activities
4 associated with this.

5 We also expect the Connecticut Yankee application
6 in here soon, so, we will be busy working on these four
7 programs.

8 With regard to Maine Yankee, you are probably
9 aware that the State of Maine recently passed legislation
10 that does impact criteria associated with that site. The
11 utility, Maine Yankee has committed to update their license
12 termination plan with a revision and we are in the process
13 of sorting that out and understanding what that would be.
14 So, I just make you aware of that.

15 We have also been supporting nuclear reactor
16 regulation in their revision of the Generic Environmental
17 Impact Statement for reactor decommissioning. This is a
18 document that was put out, I believe, back in the '88
19 timeframe, and it needs to be updated. There is a series of
20 public meetings that have been held around the country,
21 Chicago, up in Boston the day after the Maine Yankee
22 meeting, I believe Atlanta and San Francisco. And these
23 also have been well attended, and we will look forward to
24 the results of that.

25 MR. GREEVES: The next point is the SECY

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1 Commission Management Program. Recently we submitted a
2 Commission paper, SECY 0094, and we've also commend that
3 that paper to you, and the original comprehensive report on
4 the status of our decommissioning program. That's pretty
5 much got everything that we've been working on for the past
6 couple of years, and I would urge you to look at that in
7 terms of a reference.

8 The Staff does plan to remove three sites from the
9 SD&P program this year. We've already gotten one. That's a
10 lot, but that's pretty much what I was going to say on
11 decommissioning.

12 MR. LARKINS: There was a petition that came in,
13 or letter that came in from NEI a couple of months ago that
14 asked the Agency to take a look at integrating all of its
15 rulemaking activities in the area of decommissioning,
16 together, and to come up with an integrated rule, I guess,
17 over the next two years.

18 NMSS was involved with this on the reactor side?

19 MR. GREEVES: That pretty much is a reactor issue.
20 It's the fire issue, it's the safeguards, emergency
21 planning. I am aware of it. I've sat through a briefing or
22 two on it.

23 I think that's something that probably somebody
24 like Stew Richards or John Zwolinski would be best to fill
25 you in on. In fact, I think Phil Ray is with you after

1 this, and you might ask him.

2 I'm not sure he's the right person, but we worked
3 very closely with NRR, mostly on the license termination
4 plan review. As far as operational issues, they're pretty
5 much NRR's issues.

6 MR. LARKINS: Okay. One other thing you may not
7 be aware of: We are in the process of -- well, we've better
8 defined the separation of responsibilities between the ACRS
9 and the ACNW in the area of decommissioning and putting
10 together a package that will probably go the Commission.

11 I might want to ask you to take a look at it and
12 make sure we have everything correct.

13 MR. GREEVES: We'd enjoy doing that. Joe, let's
14 make sure we follow up with John on that.

15 CHAIRMAN GARRICK: Just to follow up on that a
16 little bit, John, are you suggesting that maybe the
17 consolidation of decommissioning activities into a
18 decommissioning regulation or rule is applicable for
19 reactors, but not necessarily applicable for non-reactor
20 applications?

21 MR. GREEVES: I'd almost like to think about that
22 and talk to you another time. Just off the top of my head,
23 I think the consolidation is a Part 50 issue.

24 You would look into Part 50 and in various places
25 you will see the decommissioning topic discussed, and I

1 think the hitch was, is there a way to either separate that
2 into a separate part, or put it within all one spot within
3 Part 50.

4 So that's my understanding of what that was
5 supposed to be. But I'm not quite sure that was -- I think
6 you were on to a different question.

7 CHAIRMAN GARRICK: Yes.

8 MR. GREEVES: You know, decommissioning affects
9 all parts, and that's why you will see decommissioning
10 language in Part 40, 30, 70, in fact, the timeliness
11 requirement, which is -- a decommissioning artifact, is in
12 all those parts.

13 We want to make sure that all the licensees know
14 that if they have an outdoor area that is contaminated, you
15 just can't leave it that way. Even if they're going to
16 operate for another 15 or 20 years, they need to get on that
17 and clean it up within about a two-year timeframe.

18 So, what I'd like to do is think about it and
19 maybe talk to you separately, if you've got some ideas on
20 that, but there is no notion on our part to try and
21 consolidate and come up with a new Part for decommissioning
22 materials facilities.

23 CHAIRMAN GARRICK: Okay.

24 MR. GREEVES: But maybe we could talk a little bit
25 about it. I'm just not ready to do much more on it today.

1 Is that fair?

2 CHAIRMAN GARRICK: Yes.

3 MR. LARSON: One other question, John. You know,
4 when you started, you indicated that you were aware that the
5 Committee had talked about having a working group on
6 decommissioning-related things in October.

7 And now you've been through a litany of various
8 things that are in progress. Does that seem like a
9 meaningful to time to do that, or would it be better a month
10 or two later?

11 I know it's always evolving, so --

12 MR. GREEVES: I learned about it yesterday, and my
13 staff briefs me on what's going on. When I looked at it, I
14 said, that sounds great to me.

15 MR. LARSON: Okay.

16 MR. GREEVES: As I said, I think you have a nice
17 resource document in the June 7 and 8 meeting that we had.
18 Collectively, we have a nice resource.

19 And we are planning a meeting in November with our
20 licensees to, you know -- where are you? How are you
21 working these issues?

22 So, I would benefit from the results of an October
23 venue by the Committee, and I think our stakeholders would,
24 too. So, it struck me as a good timeframe.

25 The only thing I'll add -- and it really doesn't

1 mean a lot -- is that there is already a lot of stuff in
2 October. It's a popular month.

3 Tom LaGuardia is having his usual thing. There is
4 an IAEA activity, and there are like three things that I'm
5 signed up for in October already. I don't have anything in
6 September, but October, I've got three things on my calendar
7 already.

8 Have you picked a date? Maybe we could avoid some
9 of these dates that -- basically they're going to attract
10 your stakeholders away from your meeting, so I'll let you
11 know of a couple of competing events in October. We can
12 talk about dates.

13 No, the timing is good for me. As soon as I saw
14 it, I said, that's good. I think it will help our November
15 meeting, okay?

16 Now, we'll move on to low-level waste. Staff was
17 down to brief you, Tom Essig and Jim Kennedy, Mr. Low-Level
18 Waste, was the last resource we have on low-level waste
19 issues.

20 [Laughter.]

21 CHAIRMAN GARRICK: How does that make you feel,
22 Tom?

23 [Laughter.]

24 MR. GREEVES: Tom's a Branch Chief. He's got more
25 than low-level waste issues, but he's finding ways to steal

1 some additional resources to apply to the low level waste
2 program.

3 As you know, we owe the Commission our performance
4 assessment document, and you were briefed on that, so we
5 would plan on forwarding that, and if you see some hard
6 spots in that, we need to know what they are, and talk about
7 that soon because that document is scheduled to be completed
8 this year.

9 I'm sure that Tom and Jim told you, you know,
10 about the status of what's going on in the states, which I
11 think you're very well aware of. We help where we can and
12 when asked, but, frankly, we don't get asked very often by
13 the states anymore.

14 In years past, two or three special things were
15 going on and they asked for the staff support on it, and
16 we're not getting a lot of requests recently. They're in
17 and out, but not significant requests that require a lot of
18 staff energy.

19 CHAIRMAN GARRICK: But, John, isn't this because
20 there's not much going on?

21 MR. GREEVES: Well, there's things going on, but
22 certainly the track record is that there are no new compact
23 disposal facilities. The big thing that's going on, I
24 guess, is the EnviroCare issue.

25 CHAIRMAN GARRICK: Yes.

1 MR. GREEVES: Will there be a license out there
2 that passed one hurdle? And I think we talked about that
3 the last time.

4 And the next one is can they take B and C waste
5 and, you know, the country is watching that process. And if
6 the State of Utah wants our help on it, they'll ask, but so
7 far it's been discussion but no substantive request for us
8 to participate.

9 I think we all recognize that the low level waste
10 program isn't so much about Part 61 anymore; there are a lot
11 of cross-cutting issues that I'm sure Tom and Jim mentioned
12 to you, the concept of rubbelization is being looked at in
13 various forms.

14 Entombment is a topic, and there is a fair amount
15 of interest in this, and I think we, collectively, are going
16 to have to do something on this topic. I invite you to keep
17 that on your radar screen.

18 There is a stream of questions coming in about
19 what we call low-end source material, TENORM, topics like
20 that. The assured isolation proposal keeps cropping up, so
21 that may get onto our plate later in the year.

22 I don't have anything definite on that. So, we
23 would look forward to your views on topics such as this.
24 The mixed waste topic from time to time comes up, and
25 particularly I expect that entombment will be a topic that

1 either we're going to recommend we come back and talk to you
2 about, or you'll pick it up yourself, depending on how that
3 plays out.

4 I just will say a postscript. The National
5 Research Council asked us to participate in their study on
6 low-level rad waste, the disposal challenge and
7 opportunities ahead, and we are going to -- we have
8 responded positively to that, and the Committee, I'm sure,
9 is aware of that, so that's something we can keep our eye
10 on.

11 I think it's a nice leverage over our resources,
12 too, for the Board on Radioactive Waste Management to delve
13 into that, and I'm sure we'll be down briefing them from our
14 perspective.

15 MR. LARKINS: Quick question: I see your staff is
16 doing some things with EPA on the mixed waste issue. Do you
17 see a role or do you see any value in having the Committee
18 involved in those?

19 MR. GREEVES: There are two pieces, and one's just
20 about done. That's the piece at the utilities, and
21 everybody's -- that's a win/win for everybody, and I think
22 you're aware of that one.

23 The other piece is a RCRA facility, and it fell on
24 a little bit of hard ground here recently, but it is the one
25 that you should -- in fact, I'll be back when it warms back

1 up, and discuss it with you, because it is a concept that
2 basically is going to be a modeling approach and something
3 that I think we could benefit from the Committee's view on
4 it.

5 Unfortunately, I think it's on hold right now.
6 The EPA has resource issues associated with that. They're
7 working all their other topics, so as that comes back on the
8 burner, I think it is something that I will be giving you a
9 heads-up on in terms of a timeframe of my expectations, and
10 we probably want to engage you on it. It is an important
11 topic and we would look forward to making some progress on
12 that.

13 MR. LARSON: You mentioned a couple of other
14 topics that Tom and Jim Kennedy mentioned yesterday, and one
15 was assured isolation. Do you have any sense as to when
16 that would come up and be ripe for the Committee to look
17 at?

18 MR. GREEVES: I think that what that's going to
19 take is a state coming in and saying we're serious, would
20 you look at this and help us? So far, we have contractors,
21 we have people coming in the door, and I think it's going to
22 take a state with a we're serious, we're looking at it,
23 would you please -- and the Commission, I believe, in
24 letters in the past said that if somebody is serious about
25 this, please come in and talk to us and show us the

1 parameters.

2 I know that it's being considered in states like
3 Texas. It's being discussed in California, but there's no
4 piece of paper coming in from either of those states, asking
5 either the Staff or the Commission to look at it.

6 MR. LARSON: You're right, the contractors have
7 written things, but we haven't got any --

8 MR. GREEVES: Lots of visitors on that topic, but
9 I think it takes a real stakeholder walking in the door,
10 saying I've got one, and I want your assistance or you view
11 on this.

12 When that happens, we'll all know and we'll do the
13 right thing.

14 MR. LARSON: And another topic they mentioned
15 yesterday was the entombment thing, as you said.

16 MR. GREEVES: Yes. I fully expect that to be an
17 agenda item.

18 MR. LARSON: Do you have an idea on timing?

19 MR. GREEVES: Could be late this summer. I can
20 maybe visit with you separately.

21 MR. LARSON: Okay.

22 MR. GREEVES: I don't want to speculate in this
23 meeting. I can actually do better with you separately, and
24 I need to talk to Research about that, too. But it should
25 be a planning wedge in terms of a topic.

1 Okay, I have pretty much finished my low-level
2 waste issues. I think the Committee is aware that I need to
3 be upstairs at 9:15. What I'd like to do at this point is
4 to ask Bill Reamer to run through the high-level waste
5 issues, and I'll apologize if I get up and leave during the
6 middle of it, if that would be acceptable.

7 Bill?

8 MR. REAMER: Okay, I'm Bill Reamer, NRC Staff. I
9 think there are about a half a dozen items I can touch on
10 for you in the high-level waste area.

11 As to Part 63 and defense-in-depth, there's not
12 really any change to report to you on that. The Staff's
13 paper was given to the Commission on April 12th. Of course,
14 the Commission also has the Committee's letter.

15 And we're really basically awaiting Commission
16 action on that paper. In addition, publicly, EPA has said
17 that they hope to issue their final Yucca Mountain standards
18 sometime this summer. That's really the best information I
19 have on the standard, the EPA standard.

20 CHAIRMAN GARRICK: Later this summer?

21 MR. REAMER: Later this summer.

22 CHAIRMAN GARRICK: They don't talk about weeks or
23 even months. They now talk about seasons.

24 [Laughter.]

25 MR. LARKINS: Yes, but it's this year.

1 MR. REAMER: Right. Yucca Mountain Review Plan,
2 the Rev 0 post-closure only version was given to the
3 Commission at the same time as the Part 63 paper in April.
4 We, the Staff, are now devoting our efforts to Rev 1, which
5 would be a complete review plan, that is, pre-closure,
6 post-closure, administrative, and general information items.

7 Of course, there is Commission direction to the
8 Staff to work with the Committee on Rev 1 in terms of
9 assuring that the review plan is risk-informed and
10 performance-based. And so we will be interacting with you
11 on that quite a lot. That's good for us.

12 MR. LARKINS: Bill, that's on a pretty tight
13 schedule.

14 MR. REAMER: Yes, it is.

15 MR. LARKINS: You're talking about September, as I
16 recall. So once we get into it, we'll have to sort of see
17 if we're going to be able to keep pace.

18 MR. REAMER: Yes. Rev 1, remember, is a version
19 to publish for public comment; it's not like the last, the
20 final, the end-all/be-all, so we're on a tight time schedule
21 for this phase. But I think there's also a time after this
22 phase to continue to interact with you and the other
23 stakeholders who are interested in that document.

24 I'd move on to the Department of Energy site
25 recommendation and the NRC requirement to provide comments

1 on the sufficiency of certain information for inclusion in a
2 possible license application.

3 The Staff is close to completing its preliminary
4 strategy document. We're building on the briefing and the
5 structure that we presented in March to the Committee.
6 We're putting it into words.

7 Our plan is to have a preliminary strategy
8 document complete and to the Commission by the end of this
9 month. We also have a milestone of completing our final
10 guidance, which would be a further elaboration of the
11 strategy, how we would plan to review and prepare, review
12 the technical basis documents, the technical documents that
13 support the Department of Energy's site recommendation
14 documents that we're all getting right now.

15 Our review guidance, our plan is to complete that
16 by the end of September, and provide it to the Commission at
17 that time.

18 I think we have a meeting with you in October, if
19 I remember correctly, on that guidance -- September, okay,
20 thanks.

21 The Department of Energy's siting guidelines were
22 provided in draft final form to the Commission in May, May
23 4. The Staff's milestone is to complete its review of the
24 draft final guidelines and provide the Commission with the
25 Staff's recommendation by the end of June. We will meet

1 that milestone.

2 There are two requests to the Commission, one from
3 Robert Lux of the State of Nevada, Agency for Nuclear
4 Projects; another from Mr. Bradshaw on Nye County,
5 requesting that the Commission have a concurrence process
6 analogous to the concurrence process that was used in 1984
7 for the original siting guidelines. That involved public
8 comment, as well as, I think, a couple of public meetings.

9 I believe the Commission is planning to respond to
10 those letters in the near future. I don't have any
11 information on what the response will be.

12 The key technical issue, closure, closing key
13 technical issues as a goal before any license application.
14 We had the technical exchange that you received the report
15 on in April 25 and 26. We're scheduled to brief you in July
16 on that topic. I'd be very interested in any guidance that
17 you would like to give us as to what you'd like to hear in
18 that briefing.

19 And so we would be very interested in that. Also,
20 we recently completed a technical exchange with the
21 Department of Energy on a particular KTI, the total system
22 performance assessment. That was earlier this month.

23 The next item would be pre-closure. We're very
24 interested in working on our capability in this area, which
25 is not quite up to where we are in post-closure.

1 Of course, the Department of Energy's focus right
2 now is on site recommendation, and we need to be consistent
3 with their emphasis, so we are providing more resources
4 internally to work on our capability in this area.

5 We did have a meeting with the Department of
6 Energy on May 31 on their pre-closure design, and, of
7 course, you had your briefing on that earlier in this
8 meeting.

9 And that pretty much covers the status of things
10 in the high-level waste area. Any questions?

11 MR. LARKINS: Bill, I think that at some point,
12 the Committee would be interested in taking a look at the
13 performance confirmation work that the Department is doing.

14 Do you right now have any plans to do anything, or
15 comment on what the Department is doing in the near-term?

16 MR. REAMER: Not immediate plans. We're -- I
17 think at various times, we've had tentative plans to meet on
18 that topic. But it's not one of our priority items.

19 On the other hand, we understand the Committee's
20 interest, so we'd do what we could to support that. Your
21 December meeting, is that right, is where you're --

22 MR. LARKINS: Well, actually we were thinking
23 about having the Department in in July.

24 MR. REAMER: In July, okay. Were you also looking
25 for something from us in December? Do I have that right?

1 MR. LARKINS: Not that I recall.

2 MR. REAMER: Okay. Well, maybe the July meeting
3 can give a little more orientation to the Committee's
4 interests, and we can adapt to that.

5 MR. LARKINS: The other thing is that we're trying
6 to sort through this mass of documents that are starting to
7 come in, the PMRs, the AMRs, and everything else, and
8 establish some priorities for reviewing and actually
9 developing a framework for or strategy for reviewing some of
10 these things.

11 At some point we'd probably like to get some
12 feedback on your agreement or disagreement on some of the
13 Department's priorities.

14 MR. REAMER: I think that would be a good idea.
15 That's clearly part of our working on the site
16 recommendation and the sufficiency comment process. We'd be
17 happy to engage in that. That would be good for us.

18 MR. LARKINS: Especially since we're all limited
19 in resources.

20 MR. REAMER: Absolutely.

21 CHAIRMAN GARRICK: Bill, is there anything coming
22 out of the DOE siting guidelines that would constitute
23 bigger issues than anticipated, or surprises or what have
24 you?

25 MR. REAMER: Basically at this point, I'd say, no,

1 not to my knowledge. We're at the beginning of the process,
2 however. There are requests pending before the Commission
3 that relate to important procedural issues to stakeholders.

4 You know, a number of comments were received by
5 the Department of Energy on the guidelines, but with respect
6 to your specific question, do I see issues, no, subject to
7 what I said about the procedural questions.

8 CHAIRMAN GARRICK: Are there questions from the
9 Committee? Staff?

10 [No response.]

11 CHAIRMAN GARRICK: Okay, I think we appreciate the
12 update. If there are no further questions, we will move to
13 the next item, if they're here. You're going to -- the next
14 item on our agenda, if the people are here, is to review
15 Draft Regulatory Guides DG1067 and DG1071, et cetera.

16 I guess Philip Ray was going to do that
17 presentation. Is he here?

18 [No response.]

19 CHAIRMAN GARRICK: Okay, all right.

20 MR. LEVENSON: If we've got a couple of minutes,
21 I'd like to propose --

22 CHAIRMAN GARRICK: Microphone.

23 MR. LEVENSON: -- next year's meeting --

24 CHAIRMAN GARRICK: Oh, that's a good idea. It has
25 been suggested, because some of the Committee members have

1 to do two-year planning with respect to some of their
2 activities, that we look at least into half of next year as
3 far as ACNW's schedule is concerned. Is that a possibility?
4 Can we do that?

5 You've got to give me two minutes to get my
6 calendar, too.

7 [Recess.]

8 CHAIRMAN GARRICK: Ray Wymer, I'd like you to lead
9 the discussion on the Draft Regulatory Guides.

10 DR. WYMER: Well, we are very interested, at least
11 I am, in particular, in this topic, and especially the
12 decommissioning of nuclear power reactors, since that's one
13 of my assigned areas of responsibility.

14 So I will be very interested to hear what you have
15 to say. So without any further ado, let's commence.

16 CHAIRMAN GARRICK: We would encourage you to
17 introduce yourselves, et cetera, so that it gets on the
18 record.

19 MR. RAY: All right. Good morning. My name is
20 Philip Ray. I'm a Project Manager with the Decommissioning
21 Section in the Division of Licensing, Project Management in
22 NRR. To my right is the Decommissioning Section Chief, Dr.
23 Michael Masnik.

24 For my presentation this morning, I'd like to
25 discuss the decommissioning process as described in the

1 final Regulatory Guide entitled Decommissioning of Nuclear
2 Power Reactors, and then after questions, I'd like to
3 discuss the post-shutdown decommissioning activity report as
4 described in the final Regulatory Guide entitled Standard
5 Format and Content for Post-Shutdown Decommissioning
6 Activities Report.

7 On July 29th, 1996, a final rule amending the
8 regulations on decommissioning procedures was published in
9 the Federal Register. This rule clarifies the regulations
10 for decommissioning nuclear power facilities.

11 The final rule reflects the experience and
12 knowledge gained during the actual facility decommissioning,
13 industry and government-sponsored workshops, and conferences
14 on decommissioning.

15 The rule clarifies ambiguities in the previous
16 regulations; reduces unnecessary requirements; provides
17 additional flexibility; and codifies procedures and
18 terminologies that have been used on a case-by-case basis.

19 I would now like to quickly go through the
20 decommissioning process, and describe the steps: The
21 beginning of the process is when the licensee determines to
22 permanently cease power operation.

23 In accordance with the regulations, a licensee who
24 has determined to permanently cease operations is required
25 to submit written certification to the NRC within 30 days of

1 the decision or requirement to permanently cease operations.

2 Once the fuel has been permanently removed from
3 the reactor vessel to a spent fuel pool, in conformance with
4 the facility's technical specification, and a certification
5 of this event has been received and docketed by the NRC, the
6 Part 50 license will no longer authorize operation of the
7 reactor or allow the movement of fuel within the reactor
8 vessel.

9 This certification entitles the licensee to a feed
10 reduction, and eliminates the obligation to adhere to
11 certain regulatory requirements needed only during reactor
12 operation.

13 Examples include monitoring the vessel for
14 pressure and temperature shock, and containment leak rate
15 testing. The power reactor license -- for power reactor
16 licensees, the regulation states that decommissioning must
17 be completed within 60 years of permanent cessation of
18 operation.

19 In accordance with the regulations, prior to or
20 within two years following permanent cessation of
21 operations, the licensee is required to submit a
22 post-shutdown decommissioning activities report known as the
23 PSDAR. The PSDAR will include a description of a licensee's
24 planned decommissioning activities, with a schedule for the
25 accomplishment of significant milestones and an assessment

1 of the expected costs.

2 Although these activities in support of
3 decommissioning may occur within the two years prior to
4 submission of the PSDAR, no major decommissioning
5 activities, per the regulations, may be performed within 90
6 days after the NRC receives the PSDAR.

7 The purpose of the 90-day period is to allow
8 sufficient time for the NRC Staff to examine the PSDAR, to
9 publish notification of receipt of the PSDAR in the Federal
10 Register, to hold a public meeting in the vicinity of the
11 facility to discuss the licensee's plan for decommissioning,
12 and to conduct any necessary safety inspections prior to the
13 initiation of major decommissioning activities.

14 I will discuss the PSDAR in more detail when
15 addressing the second Regulatory Guide. Major
16 decommissioning activities, as defined by the regulations,
17 any activity that results in permanent removal of major
18 radioactive components, permanently modifies the structure
19 of the containment, or results in dismantling components for
20 shipment containing greater than Class C waste.

21 The regulation states that the licensee shall not
22 perform any decommissioning activities that 1) forecloses
23 release of the site for possible unrestricted use; 2)
24 results in any significant environmental impact not
25 previously reviewed; or, 3) results in there no longer being

1 reasonable assurance that adequate funds will be available
2 for decommissioning.

3 This point in the decommissioning process is where
4 the guidance of this Regulatory Guide ends. I will spend a
5 few minutes going through the remainder of the
6 decommissioning process.

7 No later than two years into decommissioning, the
8 regulation requires the licensee to submit a detailed
9 site-specific cost estimate. There are a number of cost
10 estimates required by the regulations related to plant
11 decommissioning.

12 There is a requirement under 50.75(f)(2) for the
13 licensee to submit a preliminary cost estimate, five years
14 prior to permanent shutdown. In addition, there is a
15 requirement for the licensee to submit an estimate under
16 50.82(a)(4)(i) of expected costs that is contained in the
17 PSDAR.

18 Also, there is a requirement under
19 50.82(a)(8)(iii) for the licensee to submit a site-specific
20 cost estimate. And finally, there is the requirement in
21 50.82(a)(ii)(f) for the licensee to submit an updated
22 site-specific estimate for the remaining decommissioning
23 activities to be submitted in the license termination plan.

24 Draft guidance for these various estimates have
25 been prepared and is in the concurrence chain. You should

1 have the opportunity to review these draft guides in the
2 next several months.

3 The licensee is also required under 10 CFR
4 50.54(b)(b), to submit a program describing how the licensee
5 intends to manage and provide funding for the management of
6 all irradiated fuel at the reactor site following permanent
7 cessation of operation until title and possession of the
8 fuel is transferred to the Secretary of Energy.

9 The licensee must submit this program for staff
10 review and approval, two years following permanent cessation
11 of operations.

12 Licensees must apply for a termination of their
13 license. An application for termination of the Part 50
14 license must include a license termination plan known as an
15 LTP. The LTP must be a supplement to the final safety
16 analysis report or equivalent, and must be submitted at
17 least two years prior to the expected termination of the
18 license as scheduled in the PSDAR.

19 This LTP will be reviewed and approved as an
20 amendment to the license. The NMSS staff has published both
21 a final Standard Review Plan and a standard format and
22 content guide for the LTP.

23 This concludes the presentation on this
24 Regulatory Guide, and I'll now take any questions.

25 DR. WYMER: Did you say that there was a 60-year

1 period?

2 MR. RAY: Yes, that is correct; you have 60 years
3 from the time you shut down permanently to decommission the
4 facility.

5 DR. WYMER: That seems like an incredibly long
6 time.

7 MR. RAY: It does seem that way.

8 MR. MASNIK: There are, of course, some reasons
9 for that. One of the options that the licensee has is to
10 put the plant in long-term storage. What that gains, of
11 course, is, you take advantage of radioactive decay.

12 If you compare that to the rest of the world, in
13 Europe, they typically are talking about a 100-year period
14 of time. They seem to have a little bit more confidence
15 about things being around for longer periods of time than we
16 do.

17 So, 60 years is a somewhat arbitrary number, but
18 interestingly enough, it has not been questioned, either by
19 the industry or the public over the years.

20 DR. WYMER: That is interesting, yes.

21 MR. LEVENSON: The 60 years is to complete it all.
22 Are there any requirements for what needs to be done in an
23 interim period? Once they've completely de-fueled it, can
24 they just close the door and let it sit there for 60 years,
25 or are there some interim levels of cleanup or what have

1 you, that have to be done?

2 MR. MASNIK: There are requirements. They would
3 maintain a license. There are requirements for monitoring,
4 maintaining a safe, stable condition at the facility.

5 Once you get past the two-year mark, and they
6 comply with the PSDAR and the cost estimates, the licensees
7 can then place this plant in a safe, stable condition, and
8 essentially do almost nothing for 60 years.

9 Now, there's always routine maintenance, there's
10 infiltration of water, there is processing. We have several
11 facilities in that condition. LaCrosse is one of them,
12 TMI-2 is another.

13 DR. WYMER: The requirements for the spent fuel
14 that you've taken out of the reactor --

15 MR. MASNIK: The interesting thing is that when
16 these regulations were being developed in the 80s, there was
17 no consideration of spent fuel because spent fuel was not
18 going to be a problem. And that was because it was all
19 going to be taken from the facility.

20 So as a result, these regulations don't reflect
21 storage of the spent fuel, but spent fuel storage, of
22 course, is found in a different part of the regulations, and
23 what we're finding the licensees are doing is that they're
24 building ISFSIs and transferring the spent fuel into dry
25 storage.

1 And some of them are doing it under a general
2 license, some of them are doing it under a site-specific
3 license. It really is not a problem, in that there is
4 typically a five-year period after the plant shuts down
5 before we could even put the fuel, or the licensee could put
6 the fuel into dry storage.

7 In that time, there's a lot of other activities
8 that occur during the decommissioning process, and it
9 doesn't cause problems from the standpoint of the
10 decommissioning process.

11 DR. WYMER: And there are no problems because of
12 having to plan five years in advance, and then two years in
13 advance. The shutdown people don't find that a problem?

14 MR. MASNIK: Well, you know, we haven't had much
15 experience in this because all of the plants that we have,
16 have prematurely shut down.

17 So, the five-year, the preliminary cost estimate
18 that's supposed to be submitted five years in advance, we
19 have actually never received one because the plants have
20 shut down and we've actually gone to site-specific.

21 Most utilities have -- I would venture to say that
22 all utilities have some sort of a site-specific cost
23 estimate for decommissioning, even though they're not
24 required to submit it until two years after they permanently
25 cease operations.

1 And that's primarily because of the energy
2 regulatory bodies within the states within which they reside
3 have required it.

4 DR. WYMER: Do you have a pretty good sense of
5 what reactors are queuing up to come in to you for
6 decommissioning?

7 MR. MASNIK: You mean plants that are anticipating
8 shutdown?

9 DR. WYMER: Yes.

10 MR. MASNIK: We thought we used to, and we were
11 actually pretty good at predicting them about three or four
12 years ago. But recently, we've kind of -- our experience
13 has indicated that we're not quite as good as we thought we
14 were at predicting.

15 We have not had a plant shut down for a couple of
16 years now, and the general consensus is that we probably
17 won't see a plant shutting down for a couple of years, at
18 least.

19 CHAIRMAN GARRICK: A lot of this is being brought
20 about by the consolidation of ownership of the plants, and a
21 change in the whole infrastructure, if you will, of the
22 operations companies, operating companies.

23 And do you -- I think most of us were quite
24 confident a few years ago that there were would be very few
25 license renewals, whereas now that picture has changed quite

1 considerably.

2 So, that's going to have, I guess, an impact at
3 least on the level of your activity.

4 What if de facto dry storage becomes the preferred
5 option for high-level waste storage for the next 100 years?
6 How does that change things? How would that change things?

7 MR. MASNIK: It certainly would not affect the
8 process, because the process that we have here is for the
9 balance of the plant, and that's what our focus is on, the
10 radiological decontamination of the facility.

11 What we're finding is that licensees are building
12 ISFSIs on the site. We're going from a 1,000 acres to 8,000
13 acre sites that the licensee has ownership. If they pursue
14 decommissioning and they decommission the facility, they can
15 release lot of that property and ultimately, you know, we're
16 talking about maybe 10 or 15 acres of area that would have
17 to remain under a license for the 100-year period.

18 But there is no conflict between dry storage and
19 decommissioning activities. The licensees have
20 de-conflicted that reasonably well.

21 DR. WYMER: Some of these sites have a couple of
22 reactors on them. You might shut one reactor down and leave
23 another one running, and then actually decommission one.

24 But there are things that are in common between
25 the reactors. Does the -- do the regulations specifically

1 address this, or is it just sort of handled as it comes
2 along?

3 MR. MASNIK: We've had that experience at several
4 facilities. San Onofre Nuclear-1 is one; TMI is an example,
5 and Millstone, also.

6 During the period of time after the licensee
7 declares permanent cessation of operations, there is
8 generally -- well, there's not generally; there is a
9 top-down review of the facility, and an effort on the part
10 of the licensee to identify shared systems, and then to
11 isolate those.

12 Typically what happens is, they're isolated from
13 the shutdown reactor, and they could go so far as to build
14 redundant systems at the other two facilities so that they
15 can take the facilities related to the shut-down reactor out
16 of service.

17 DR. WYMER: But this situation is not specifically
18 addressed, and you don't think it needs to be addressed?

19 MR. MASNIK: No, it's not, no.

20 DR. WYMER: Are you going on to the rest of the
21 viewgraphs then?

22 MR. MASNIK: Yes.

23 MR. LARSON: Is there any -- I know that EPA every
24 now and then says they're interested in being involved in
25 decommissioning, but that's more in the license termination

1 process than in the process you're talking about here, and
2 the same with the states; is that correct?

3 MR. RAY: They are interested in, and we do keep
4 in contact with them during the decommissioning process, but
5 as far as being involved in a regulatory sense, they haven't
6 been; they have just been very cooperative, and we let them
7 know what's going on.

8 MR. LARSON: The Committee has heard about the
9 Maine Yankee situation and the 25 and the 15 and the 4, and
10 the state and the law.

11 MR. RAY: That's license termination.

12 MR. LARSON: That's the part that's beyond.

13 MR. MASNIK: One thing that we are doing is we're
14 updating the generic environmental impact statement for
15 decommissioning, which looks at the entire process from
16 start to finish, and we've been working very closely with
17 EPA on that.

18 They have been attending our meetings, our scoping
19 meetings, and we've had several meetings with them, so we're
20 trying to get their input into the process.

21 MR. CAMPBELL: Just a point of information, the
22 Committee was in the UK and France a month ago, and we got a
23 presentation on it from EDF on what they're doing in France.

24 They were thinking about 25-50 years storage for
25 -- I think they have nine reactors in shutdown and

1 undergoing decommissioning. Now they're looking at
2 decommissioning all nine of them in the next 25 years. So
3 rather than long-term storage, they're actually going to
4 green-fields, or the plan is at this point to go to
5 green-field in that period of time. By 2026, they'll have
6 all nine in third stage decommissioning.

7 MR. MASNIK: I know. I've toured a number of
8 facilities in England and Wales that have been put into
9 long-term storage.

10 MR. CAMPBELL: Yes, England is still using and
11 still considering long-term storage.

12 DR. WYMER: Please continue.

13 MR. RAY: I'd like to continue with the next final
14 Regulatory Guide entitled Standard Format and Content for
15 Post-Shutdown Decommissioning Activities Report. According
16 to the regulation, the licensee is prohibited from
17 performing any major decommissioning activities until 90
18 days after the NRC has received the licensee's PSDAR
19 submission, and until the certifications of permanent
20 cessation of operation and permanent removal of fuel from
21 the reactor vessel has been submitted.

22 For a quick overview, the purpose of the PSDAR is
23 to:

24 1) Inform the public of the licensee's planned
25 decommissioning activities;

1 2) Assist in the scheduling of NRC resources
2 necessary for the appropriate oversight activities;

3 3) Ensure the licensee has considered the cost of
4 the planned decommissioning activities and considered the
5 funding for the decommissioning process; and,

6 4) Ensure the environmental impacts of the planned
7 decommissioning activities are bounded by those considered
8 and existing environmental impact statements.

9 A PSDAR should include a description of the
10 licensee's planned activities for decommissioning. The
11 purpose of the description is to inform the NRC and the
12 public of the planned decommissioning by providing a general
13 overview of the proposed decommissioning activities, and
14 identifying specific activities to be accomplished or
15 performed.

16 The licensee should describe in general terms, the
17 method or combination of methods selected for
18 decommissioning. For example, long-term storage followed by
19 decontamination and dismantlement known as safe-store, or
20 prompt decontamination and dismantlement known as decon, or
21 partial decontamination and dismantlement followed by
22 long-term storage and then final decontamination and
23 dismantlement.

24 The purpose of the schedule is to provide
25 information to the NRC and the public on the anticipated

1 timing of decommissioning events, as well as to allow the
2 NRC to scheduled resources necessary for appropriate
3 oversight activities described in the Planned Activities
4 section of the PSDAR, so that the reader understands the
5 sequence of events, as well as the timing of the events.

6 The level of detail of the schedule will depend
7 upon the timing of the activities and will assist NRC in
8 determining the degree of necessary oversight required.

9 The schedule for major activities in the near-term
10 should be given to the nearest month and year. The
11 activities that will follow a storage period of at least
12 five years may be scheduled to the closest year.

13 The PSDAR should include an updated estimate of
14 the expected decommissioning costs. The updated cost
15 estimate required by 10 CFR 50.82(a)(4)(i) may be one of the
16 following:

17 The amount of decommissioning funds estimated to
18 be required pursuant to the regulations as currently
19 reported on a calendar year basis at least once every two
20 years to the NRC;

21 A site-specific cost estimate that is based on the
22 activities and schedules discussed in the first two sections
23 of the PSDAR;

24 And an estimate based on actual costs at similar
25 facilities that have undergone similar decommissioning

1 activities;

2 Or a generic cost estimate.

3 The PSDAR should include a discussion of the
4 reasons for concluding that the environmental impacts
5 associated with the site-specific decommissioning activities
6 will be bounded by previously issued environmental impact
7 statements.

8 Prior to preparing the PSDAR, the licensee should
9 evaluate the potential environmental impacts associated with
10 the site-specific decommissioning activities, including
11 those activities listed in the Planned Decommissioning
12 Activities section of the PSDAR.

13 The potential environmental impacts associated
14 with the decommissioning should be compared with similar
15 impacts given in the final environmental impact statement
16 known as FES, for the plant, or as supplemented in the GEIS
17 on decommissioning, the site-specific environmental
18 assessment, and the GEIS on radiological criteria for
19 license termination.

20 If significant environmental impacts are
21 identified that have not been considered in the
22 plant-specific FES, or in the GEIS on decommissioning, and
23 on radiological criteria for license termination, the
24 licensee is prohibited by regulations from undertaking the
25 activity that will result in such an impact, without first

1 complying with 10 CFR Part 51.

2 The licensee must submit a supplement to its
3 environmental report that relates to the additional impacts
4 covered under this regulation.

5 MR. RAY: Upon receipt of the PSDAR, the NRC will
6 docket the PSDAR and place a notice regarding its receipt in
7 the Federal Register to solicit comments on the PSDAR from
8 the public, pursuant to the regulations. A copy of the
9 PSDAR will be made available to the public at the public
10 document room and other electronic medium.

11 The NRC will schedule a public meeting in the
12 vicinity of the site to discuss planned activities and to
13 hear public comment.

14 A number of factors could cause the NRC to find
15 the PSDAR deficient. These factors are directly related to
16 the topics included in the PSDAR, as discussed. The NRC
17 could find the PSDAR deficient in the following
18 circumstances:

19 The licensee's plan for decommissioning could not
20 be completed as described.

21 The schedule included in the decommissioning
22 process, that could not be completed within 60 years of the
23 permanent cessation of operation, as required.

24 The licensee's decommissioning plan, as presented
25 in the PSDAR, included a decommissioning process that could

1 not be completed for the estimated cost using the generic
2 guidelines and the GEIS, and using previously facility
3 decommissioning costs, or if the estimated costs were less
4 than the amount estimated by the method in the regulations.

5 The PSDAR included activities that would endanger
6 the health and safety of the public by proposing activities
7 that do not comply with the NRC's health and safety
8 regulations, or would result in a significant detrimental
9 impact to the environment that would not be bounded by the
10 current Environmental Impact Statements.

11 According to the regulations, the licensee must
12 notify the NRC in writing, with a copy to the affected
13 states, before performing any significant decommissioning
14 activities that could be considered to be inconsistent with
15 or a significant schedule change from the list of planned
16 decommissioning activities or schedules described in the
17 PSDAR. Changes to the PSDAR may be in the form of a written
18 letter to the NRC, or may be an actual revision to the
19 PSDAR. Changes that result in any type of environmental
20 impact not bounded by previous issued Environmental Impact
21 Statements would need a supplement to the environmental
22 report.

23 This concludes my presentation for today and we
24 will take any further questions.

25 DR. WYMER: Are there any questions? John.

1 CHAIRMAN GARRICK: Well, one of the priorities of
2 this committee is to look at things, look at regulatory
3 activities from the point of view of implementing
4 risk-informed, performance-based practices. How do you see
5 RIPB entering into the decommissioning process?

6 MR. MASNIK: Well, first of all, what we are
7 describing here is a process, and it is primarily a
8 notification process.

9 CHAIRMAN GARRICK: Yes.

10 MR. MASNIK: And where we see, of course, the risk
11 base would be perhaps in the inspection program or in that
12 area. There also are a number of rulemakings that are going
13 to be coming forth over the next couple of years. We are
14 going to reevaluate the regulations that govern the
15 different types of decommissioning.

16 For example, in the area of emergency
17 preparedness, how the regulations would be relaxed over
18 time. And we are attempting to do this in a risk-informed
19 manner. These particular Reg. Guides, though, talk about
20 the process, which is really just outlining the steps for
21 the paper, and it is primarily a notification process.

22 CHAIRMAN GARRICK: Yeah, I was looking at the
23 PSDAR descriptors you have here. They are mostly discuss,
24 describe, schedule, cost estimates, et cetera, and trying to
25 envision what is changing here, if anything, as a result of

1 this transition in regulatory philosophy. And I think that,
2 you know, until we see some of the documentation, of course,
3 we can't speak to it very specifically.

4 But, at the same time, one of the places where
5 this usually gets started is in the guidance, is in the
6 guidance documentation. A lot of the guidance documents,
7 further activities, other licensing activities do include
8 specific reference to methods, techniques of implementing a
9 form of risk-informed analysis. And I was just curious, I
10 was looking for your expertise to tell me where are the
11 opportunities in decommissioning.

12 MR. RICHARDS: I am Stu Richards, I am the branch
13 chief in NRR for this area. Just to get in my two cents on
14 it, one area I think we can pursue to address your question
15 is, if you go back in time, I think previously, before 1996,
16 utilities had to come in with a decommissioning plan on the
17 front end, and we asked for a lot of detail, and then we had
18 to approve it. And then in 1996, the Commission elected to
19 go to what appears to me to be a performance-based approach
20 where we said, in order to terminate the license, here is
21 the criteria, the 25 millirem all pathways in ALARA, and how
22 you get there is largely up to you.

23 The PSDAR is not a document that the staff reviews
24 and approves, it is a fairly small document, I guess it runs
25 12 to 25 pages. It provides an informational outline of how

1 a utility intends to proceed. It is used to inform the
2 staff of their intentions. It is also used to inform the
3 local public of what they intend to do. But they are free
4 to change their approach. They can go from SAFSTOR into
5 decommissioning and dismantlement if they want to. So,
6 actually, the process is fairly performance-based because
7 they have a lot of latitude, as long as they can get to that
8 25 millirem ALARA.

9 So, I think, from where we were probably five, six
10 years ago, we have gone a long ways towards being
11 performance-based in decommissioning.

12 CHAIRMAN GARRICK: Yeah. You could interpret that
13 change in the PSDAR as being driven by adopting a
14 performance-based perspective, and a direction in making the
15 process a little simpler.

16 What is done now in the way of safety analysis
17 with respect to decommissioning? Have there been any
18 changes there?

19 MR. MASNIK: One of the -- well, first of all, the
20 '96 regulations require an updating of the FSAR, and they
21 maintain what they call a DSAR.

22 CHAIRMAN GARRICK: Yes.

23 MR. MASNIK: Or decommissioning safety analysis
24 report. We also process a number of amendments to the
25 license once a plant shuts down. Probably the most

1 significant is top to bottom review and approval of their
2 technical specifications. So, there is a significant safety
3 review at that time.

4 There are also other amendments for operator
5 licensing, for example, is another one. There is probably
6 between seven and ten that come in during the first two
7 years that relax some of the requirements, and those, of
8 course, have an associated safety analysis with them.

9 CHAIRMAN GARRICK: From the utilities'
10 perspective, it seems that one of the biggest question marks
11 that they are facing is, of course, what to do with the low
12 level waste, and rubbleization is an option that is under
13 some consideration, and could be greatly affected by changes
14 in the standard such as the Maine Yankee example. So, when
15 you talk to the reactor operators, they identify this as the
16 big pain in the neck in terms of being able to control costs
17 and being able to have -- being able to fix schedules.

18 From the perspective of regulation, what do you
19 see as the gorillas in the process?

20 MR. MASNIK: Well, clearly, disposal of the low
21 level waste is going to be a problem in the next couple of
22 years.

23 CHAIRMAN GARRICK: Same problem.

24 MR. MASNIK: And maybe even after that. With the
25 agreement down at Barnwell, that is going to have some

1 effect. And what we are seeing now is a state by state
2 position on disposal of low level waste, and we find that
3 that clearly is going to affect the total cost of the
4 decommissioning effort.

5 Rubbleization, you know, is an option that was
6 proposed by Maine Yankee. We, NMSS, prepared a Commission
7 paper on that and, basically, have said that we would
8 consider this on a case-by-case basis. I think it is going
9 to be probably, without a clearance rule, it is going to be
10 one of the most significant issues that the industry has to
11 face.

12 CHAIRMAN GARRICK: Yeah, I think this is a real
13 problem. Do you have any evidence at all to indicate that
14 other states may follow the lead of Maine, for example, of
15 taking the NRC requirements and just adding additional
16 safety margin to those requirements? Because that could
17 really ratchet this into a nightmare.

18 MR. MASNIK: I see that in some states and others,
19 not. We are at a point now where we have several license
20 termination plans in-house for review in NMSS, and we are
21 seeing a slightly different approach on each of them,
22 depending on where they are located. We have some
23 indication that we will continue to see that for some time.

24 I don't know, Robert, if you wanted to add to
25 that.

1 DR. WYMER: Identify yourself.

2 MR. NELSON: Bob Nelson, chief of the facilities
3 decommissioning section, NMSS. We have three license
4 termination plans in-house now, Trojan, Maine Yankee,
5 Saxton. We are expecting Connecticut Yankee very shortly.
6 They all have, as has been stated, a different approach, and
7 all are at various stages in the process, actually, of
8 cleaning up. And to some degree, the question on low level
9 waste not only depends on the state that they are in, but,
10 also, where they are at the present time.

11 For example, Trojan, most everything has been
12 cleaned up at this point, and, of course, they have access
13 to the Northwest Compact. So, low level waste doesn't
14 appear to be a real problem there. And they are going to
15 repower the site, a portion of it, so, they are leaving a
16 lot of buildings standing.

17 Saxton, on a case, is going to basically tear
18 everything down, but they prefer to do that after the
19 license is terminated. Maine Yankee, we are going to see a
20 revision to their license termination plan in the near
21 future, but their plan is to leave some concrete on-site.
22 So, there is a mixed bag of approaches. And I think we will
23 continue to see that, depending on where the state is --
24 where the utility is located, what state it is in, and
25 whether there are other state regulations that exist or that

1 the utility voluntarily decides to try to meet.

2 CHAIRMAN GARRICK: Thank you.

3 DR. WYMER: George, any questions, comments?

4 I have one that maybe is a little bit off the
5 wall. The goal is to decommission down to 25 MR per year or
6 less, with an override of ALARA on top of that. It is not
7 inconceivable, to me at least, that some of the reactor
8 sites won't make that, in which case you get into some
9 license termination considerations. How do you handle this
10 interface, if you can't get down to -- if they find out they
11 really can't get down to those levels?

12 MR. RICHARDS: This is Stu Richards. As far as I
13 know, I think we anticipate all the reactor sites making 25
14 ALARA. There might be some question on materials sites, I
15 have heard that from NMSS. But as far as reactor sites go,
16 we don't think that is going to be a problem.

17 MR. MASNIK: And the industry doesn't either. I
18 mean they are reasonably confident that they can get down to
19 that.

20 DR. WYMER: They are sanguine and that comes from
21 the word "blood."

22 Okay. Any other staff questions?

23 MR. LARSON: The Reg. Guide talks about, you know,
24 DECON, SAFSTOR and ENTOMB and says entombment really doesn't
25 look good for too many people. And, yet, John Greeves just

1 finished talking to the committee saying that, well, we are
2 reevaluating entombment.

3 MR. RAY: Right.

4 MR. LARSON: And yesterday we heard that maybe --
5 actually, throw concrete and other things in here.
6 Although, if I look at entombment definition in here, it
7 says "involves encasing radioactive structures in long-lived
8 substance such as concrete," but that doesn't sound like
9 what they are talking. I guess you are really in the
10 process of reevaluating entombment and what it means, and
11 the definition. Yeah. And that would address one of John
12 Garrick's comments on low level waste disposal, et cetera.

13 And there is no -- is there a timeframe on that?

14 MR. MASNIK: Well, the Generic Environmental
15 Impact Statement which we are working on, which we are
16 hoping to get out by the end of this year, at least the
17 draft form, will address entombment options. And I am sure,
18 as you know, that it is not just encasing it in concrete.

19 MR. LARSON: No, I mean that --

20 MR. MASNIK: There are a lot of other options that
21 are being considered.

22 MR. LARSON: And, you know, we realize that NEI
23 has come into the -- has written a letter and asked that the
24 process be expedited. I guess there has not been an
25 official response from the agency on that yet. Or has

1 there?

2 MR. MASNIK: You know, we are kind of shared on
3 our responsibilities.

4 MR. LARSON: Right.

5 MR. MASNIK: And I am not aware of it, but I don't
6 know, Robert, do you know anything about it?

7 MR. NELSON: No, I don't.

8 MR. MASNIK: Okay.

9 DR. WYMER: Well, if there are no further
10 questions, we thank you for the presentation.

11 MR. RAY: Thank you.

12 CHAIRMAN GARRICK: Okay. Unless there are --
13 well, do you want to talk a little bit about whether there
14 is a basis for a letter here, or a report?

15 DR. WYMER: It doesn't seem like it to me, just
16 off the top, without giving it a lot of thought.

17 CHAIRMAN GARRICK: What is the feeling of the
18 staff here? Are they --

19 MR. MAJOR: The EDO, just stating you have no
20 objection to these Reg. Guides going forth. They are fairly
21 procedural in nature.

22 DR. WYMER: Yeah, that is that reason I say I
23 don't see a letter.

24 MR. MAJOR: There is nothing in the notebook that
25 has these margins. I think it is the near the end of the

1 last --

2 CHAIRMAN GARRICK: Right. So what you are
3 suggesting here is we do something similar to what we are
4 doing on sufficiency?

5 DR. WYMER: Where is the Larkins?

6 MR. LARSON: It is three pages from the end of the
7 notebook.

8 DR. WYMER: Three pages from the end.

9 MR. LARSON: And, of course, as Rich's description
10 and the summary point out, you know, it has already come to
11 the committee years ago, and you said you didn't have any
12 objection for sending it out for draft comments. And the
13 comments that have been received back from industry and
14 everybody has said, you know, we really don't have any
15 problems with what has been issued. So, if you wrote a
16 letter now saying you have got some problems with this, --

17 DR. WYMER: It looks like the letter is already
18 written, it is just in draft. You might as well send it on,
19 it seems to me, since these are procedural and we don't
20 really get into this.

21 CHAIRMAN GARRICK: There is very little technical.

22 MR. LEVENSON: One suggestion I might offer is, in
23 order to try to reaffirm the fact that this committee is
24 principally technical, is to include some wording which says
25 that these guides are principally procedural and not

1 technical in content and, therefore, the committee has no
2 objection, et cetera.

3 CHAIRMAN GARRICK: To their issuance.

4 MR. LARSON: But you don't want -- I mean I guess
5 the only thing in making that comment is, are you sending a
6 message to the staff that we don't want to look at anything
7 that is not technical?

8 MR. LEVENSON: No.

9 MR. LARSON: Because, you know, this is -- as you
10 know, in some other things, they have come in to the
11 committee on things before that have been purely procedural
12 and, yet, it is a process on the reactor side that almost
13 everything that has to do with the reactors or Reg. Guides
14 or anything should come and be reviewed.

15 DR. WYMER: I would be inclined to go with just
16 what is written here.

17 MR. LARSON: And I am not disagreeing with you, I
18 am just saying that that is -- that is a question you have
19 got to get back from.

20 DR. WYMER: Yeah.

21 CHAIRMAN GARRICK: All right. So, let's put
22 closure on it and say we accept his proposed letter. But I
23 know what you are saying, Milt.

24 DR. WYMER: And that is our philosophy, all right.

25 CHAIRMAN GARRICK: It is our practice to want to

1 address the technical issues.

2 MR. LARSON: Another thing that the ACRS has
3 decided at the last couple of meetings is that, because of
4 just what I described, there is a practice on the reactor
5 side that almost everything since 1954 that is related to
6 reactors has come to the ACRS. But they are saying, you
7 know, we have got a lot of things going on now. There is a
8 lot of reactors that are asking for license extensions. And
9 they see like eight of these coming up and they are actually
10 going to form two subcommittees to look at license
11 extensions for next year, are in the process of doing that.

12 So, 25 or 30 percent of their time is just going
13 to be involved in only license extensions for 20 years or
14 so.

15 CHAIRMAN GARRICK: Keep them out of mischief.

16 MR. LARSON: The chairman has said, well, maybe we
17 want to be more selective in where we spend our time. Maybe
18 we don't even have the luxury to spend an hour or two just
19 looking at Reg. Guides that are purely procedural. So, I am
20 only bringing that up as a question to look at as these
21 things come to you, because you are going to see more and
22 more and more of them over the next --

23 MR. HORNBERGER: Yeah. I mean I suppose my
24 reaction to Milt's suggestion was, yeah, we should do that
25 and, if, in fact, we are asked whether we wanted to look at

1 purely procedural things, I would argue that we would want
2 to be very selective, that, in fact, spending 45 minutes or
3 an hour takes 45 minutes or an hour that we could be doing
4 something else.

5 MR. LARSON: Well, the process is they come to the
6 staff and we should look at them and make a recommendation
7 as to whether we think it is worth your time. In this
8 particular one, since decommissioning is a major thing, it
9 probably was worth some time.

10 MR. HORNBERGER: Fair enough. No, that is fine.
11 That's right. And that is fine. So, if staff makes that,
12 you know, if you have made that decision, that is fine.

13 MR. LARSON: Well, we don't make any decision.

14 DR. WYMER: I thought it was worthwhile to hear
15 this, even though it was purely procedural. I am glad I
16 heard it.

17 CHAIRMAN GARRICK: Okay.

18 MR. LARSON: You want technical or not?

19 CHAIRMAN GARRICK: No, no. We are going to -- we
20 are accepting the letter as written.

21 And with that, I would like to declare a recess
22 for 15 minutes, and we will come back and plan our letter
23 writing session. As a matter of fact, I think what I would
24 like to say about that is that we have a meeting of a couple
25 of the members that starts at 10:45 and runs through lunch.

1 The other members, I would encourage to review, study the
2 letters that have been written and to continue the work on
3 the reports that they are working on such that we can get a
4 pretty good running start at 1:00.

5 So, we will take a 15 minute break, reconvene.

6 MR. LARKINS: Before you break, I just had a call
7 from SECY about potential dates for Commission meetings.
8 And the only open dates they have right now are like --
9 well, not open dates, dates when everybody is going to be
10 here, all the commissioners would be. October 24th or 25th,
11 which is the week right now after our meeting, and November
12 17th, which is the time you are scheduled to be in San
13 Antonio.

14 CHAIRMAN GARRICK: Well, 24-25, there is a meeting
15 here that I just got a letter on regarding WASH-1400.

16 MR. LARKINS: The water reactor safety meeting.

17 CHAIRMAN GARRICK: Yeah, the water reactor safety.

18 MR. LARKINS: Right. Yeah.

19 CHAIRMAN GARRICK: And some activities related to
20 WASH-1400, 25th anniversary, that I am involved in. But I
21 think my involvement is the 23rd, so it would work out fine
22 to have it either the 24th or 25th, for me.

23 DR. WYMER: Between those two, the 24th would be
24 preferable for me because I have --

25 MR. HORNBERGER: So, this would be like a day that

1 we would come in in addition to. For me, it would have to
2 be the 24th. I cannot schedule any Mondays, Wednesdays or
3 Fridays other than those I am already committed to.

4 MR. LARKINS: Okay.

5 CHAIRMAN GARRICK: So let's see if we can pull it
6 off.

7 MR. LARKINS: See if we can lock it in on the
8 24th.

9 CHAIRMAN GARRICK: Yes.

10 MR. LARKINS: I don't think you want to do
11 anything with changing the San Antonio meeting.

12 CHAIRMAN GARRICK: No. No. No, you know, --

13 MR. HORNBERGER: But if we don't change the San
14 Antonio meeting, I am not going to be there.

15 MR. LARKINS: Oh, that's right. Yeah, we were
16 exploring it. What did you --

17 MR. HORNBERGER: Well, we were going to check to
18 see, I think it hinged on whether that was when they were
19 having their management review down there. And if they
20 were, then we had to do it at that time. But, again, I just
21 wanted to reiterate my warning that, depending upon what
22 happens at GSA, I simply will not be able to make that.

23 MR. LARKINS: Is it a necessity that we have it
24 during the management review at San Antonio?

25 MR. LARSON: No, the only reason it was scheduled

1 then was it was thought that they were going to be nice to
2 the staff. They wouldn't have to have separate
3 presentations of ACNW. And they were already preparing
4 presentations, we would there, and it wouldn't take up any
5 more additional time, other than just separate meetings that
6 you wanted to have.

7 MR. LARKINS: But there emphasis may be different
8 than the committee's emphasis. So, I mean, I don't think it
9 is critical.

10 MR. CAMPBELL: In terms of preparation, they are
11 going to have a similar preparation, so, they will have
12 viewgraphs, for example,, that would do double duty. But
13 the management reviews that I have seen tend to me -- oh,
14 here are the projects the center is proposing to do the next
15 year. They don't necessarily represent the projects they
16 are actually working on or have the same level of focus.
17 For example, you get a tech exchange.

18 MR. LARSON: Yeah, it is just NMSS staff time.

19 MR. CAMPBELL: Right. They will all be down there
20 in that same time.

21 CHAIRMAN GARRICK: What happened, what are you
22 saying, what is in your notes about what we decided on this?
23 We have already had this discussion.

24 MR. HORNBERGER: It is fine. We don't need to
25 have it.

1 CHAIRMAN GARRICK: Yeah.

2 MR. HORNBERGER: That's fine, I agree.

3 CHAIRMAN GARRICK: Okay. So, we are shooting for
4 October 24th for the Commission meeting. Okay. Let's
5 take --

6 MR. LARKINS: Go back and call them right now.

7 CHAIRMAN GARRICK: Yes. Let's take a 15 minute
8 break.

9 [Whereupon, at 10:21 a.m., the recorded portion of
10 the meeting was concluded.]

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REPORTER'S CERTIFICATE

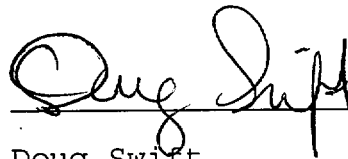
This is to certify that the attached proceedings before the United States Nuclear Regulatory Commission in the matter of:

NAME OF PROCEEDING: 119TH ADVISORY COMMITTEE ON
NUCLER WASTE (ACNW)

CASE NO:

PLACE OF PROCEEDING: Rockville, MD

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



Doug Swift

Official Reporter

Ann Riley & Associates, Ltd.



*United States
Nuclear Regulatory Commission*

ADVISORY COMMITTEE ON NUCLEAR WASTE

REGULATORY GUIDES REVIEW

DECOMMISSIONING OF NUCLEAR POWER REACTORS

AND

**STANDARD FORMAT AND CONTENT FOR POST-SHUTDOWN DECOMMISSIONING
ACTIVITIES REPORT**

June 2000

**Phillip M. Ray
Project Manager**

**Non-Power Reactors and Decommissioning Project Directorate
Division of Reactor Program Management
Office of Nuclear Reactor Regulation**

DECOMMISSIONING OF NUCLEAR POWER REACTORS

- Certify permanent cessation of operations
- Certify permanent removal of fuel from the reactor vessel
- Post-Shutdown Decommissioning Activities Report

- Site-Specific cost estimate
- Preliminary Fuel Management Plan
- Major decommissioning Activities or Long term Storage
- License termination plan (LTP)
- LTP approved by license amendment
- NRC terminates license

Post-Shutdown Decommissioning Activities Report (PSDAR)

- Description of planned decommissioning activities
- Schedule for accomplishment of planned activities
- Cost estimate of decommissioning
- Discussion of environmental impact

Post-Shutdown Decommissioning Activities Report (PSDAR)

(continued)

- NRC publishes *Federal Register* notice
- NRC schedules meeting
- Deficient PSDAR
- Changes to PSDAR

DECOMMISSIONING TIMELINE

