

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

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WORKSHOP TO DEVELOP A STANDARD REVIEW PLAN

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USNRC  
Two White Flint North  
Auditorium  
11545 Rockville Pike,  
Rockville, Maryland  
Thursday, February 17, 2000

The workshop commenced, pursuant to notice, at 8:30 a.m.

PARTICIPANTS:

ORLANDO  
PITTIGLIO  
GENOA  
DUVALL  
EID  
FORD  
GREVES  
DARMAN  
NARDI  
ALLARD  
McKENNEY

PARTICIPANTS: [Continued]

GOODMAN  
GOLDIN  
MAIERS  
SEXTON  
CULBERSON

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&  
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2	LITTLEFIELD
3	ROBERTS
4	MORTON
5	KILLAR
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## P R O C E E D I N G S

[8:42 a.m.]

ORLANDO: Good morning everybody. I want to thank you all for coming. This is the sixth in a series of workshops we've been having on developing a Standard Review Plan for decommissioning.

Most of you know me. If you don't, my name is Nick Orlando. I'm the Division of Waste Management lead for pulling this together.

Before we get started, and to -- I have a short presentation to make, about 15 minutes, to give some clarifying information and a little bit, because of some questions that have already been raised about the Standard Review Plan. But before we get started, John Greves, the Division Director, would like to make a couple of opening remarks.

So, if John will come to the front --

GREVES: Good morning. First, let me apologize about the delay, but there is apparently a bottleneck up at the entrance for people coming in, and you're probably more aware of that than I am. I just sort of walked right by it.

First, I'm John Greves, Director of the Division of Waste Management here at the Nuclear Regulatory Commission. I have met with and spent some time with most of you. Those that I haven't, I'd like to meet you today, and I'll try and be in the meeting sometimes. Just walk up and introduce yourself to me.

This is a day-and-half workshop, and it's the sixth in a series of public workshops sponsored by the Nuclear Regulatory Commission, principally to support the guidance for decommissioning of facilities under your license termination rule. It covers a lot of different types of facilities.

I see that the nuclear utilities are well represented, the fuel cycle community, and a number of others that are confronted with these issues.

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1           We've had a number of previous workshops last year, covering  
2           targeted topics such as dose modeling, restricted use of facilities,  
3           which continues to be a subject of much discussion; how to evaluate  
4           ALARA concepts in the decommissioning context. And we had a good  
5           meeting on groundwater modeling. I know a number of you participated in  
6           that.

7           Today's workshop is going to focus on any questions that you  
8           might have regarding our Standard Review Plan that's in draft. We've  
9           had it up on the Web for awhile now.

10          I know, in fact, that we've gotten a number of comments  
11          already. So, some of you are still developing your comments, and we  
12          want to use this as a session to help you in that process.

13          As I said, Nick and company have had the Standard Review  
14          Plan up on the Web. It seems to be working. It's a healthy process.

15          Over the last year and a half, we've also put out some  
16          criteria on surface contamination in November of 1998, and for soil  
17          values in terms of concentration, this past December.

18          So, these things are being implemented as we are working  
19          this process, and I've seen a number of you utilize those so-called  
20          screening values. We're aware that they are quite conservative, but  
21          they really do fill the bill if you've got a single nuclide and that's  
22          the criteria.

23          Frequently, you can just go to the NRC Region and  
24          demonstrate that you have been able to clean up to that criteria, and  
25          it's a very easy process.

          I want to thank all of you for attending today. I see many  
representatives from industry. States, how many state representatives  
do we have here today?

[Show of hands.]

GREVES: Good, join us at the table, please. I need some

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1 help from our state representatives out there.

2 A lot of this is actually going to fall to the states. I  
3 know that a number of stakeholders in the room won your license by NRC  
4 and you also are licensed by an agreement state under certain  
5 circumstances.

6 And over time, thanks -- good to see you -- okay, over time,  
7 the agreement states actually are going to inherit a lot of these  
8 responsibilities, and I need to sit down and spend some time with the  
9 agreement states and go over this, because there is probably going to  
10 come a day when you're going to take over these responsibilities for  
11 going over these plans, and we need to work on that.

12 We also made an effort to invite some public groups to  
13 participate in today's meeting. We find we learn a lot from them.  
14 There are a lot of these issues that we just aren't seeing certain sides  
15 of them, and so we've made some targeted calls to try and get that level  
16 of participation.

17 We've put the announcements for these meetings up on the  
18 Internet, put them out in newsletters. We've contacted a number of  
19 other stakeholders. We've asked EPA to join us today, and I see that  
20 John has joined us, John Carnak.

21 And we hope the word is getting out, so, if you can, please  
22 spread the word about these workshops. They have been well-attended,  
23 but we can always use additional participation.

24 I'll give you some feedback: I'm finding that the license  
25 community is actually using these tools already. Trojan has picked up  
on using the screening values in their license termination plan for that  
utility, and it seems to be going quite well.

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Nuclear Fuel Services down in Tennessee has used the  
guidance in terms of the modeling that was identified in 15.49. I've  
got a ways to go, but I was pleased to see them pick up on the use of

1 that guidance, and it seems to be working.

2           Maine Yankee recently submitted their license termination  
3 plan and is looking at a site-specific dose assessment analysis.  
4 Obviously we will be reviewing that in detail with a lot of help from  
5 others, but I'm pleased to see that what we're putting out is actually  
6 being used, and we thank you for your input in helping Nick and others  
7 perfect the process. So we're gaining some experience.

8           We've structured today's session with an eye toward  
9 interaction. Again, I'm inviting people to join us at the table.  
10 You've put a lot of work on that, and please grab a chair at the table,  
11 because there's not going to be a lot in the way of presentations.

12           I think Nick plans to walk through the modules, and I know  
13 NEI, for example, has had groups look at certain chapters. We'd like  
14 you to take lead on giving us some feedback as we go through the  
15 meeting.

16  
17           In fact, these meetings have given us some leads on  
18 difficult topics like resuspension factors. A number of licensees have  
19 provided data that they have available to them that's helped us refine  
20 those factors which very much affect dose analysis at fuel cycle  
21 facilities.

22           So, as I understand it, Nick is going to try to go through  
23 two chapters an hour. It's probably a fairly aggressive schedule, but  
24 depending on the topic, I'm sure we will get some good feedback on these  
25 various chapters.

          That's a quick rundown on the workshop. I'll just give you  
some background before I turn the meeting over to Nick:

          We are planning to have a followup workshop in June, June  
7th and 8th of this year, on what we're calling the technical 400 basis  
document. It will be an appendix to our Standard Review Plan.

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1           And it will provide detailed technical approaches to perform  
2 dose modeling. If you're going to do a site-specific analysis, you're  
3 probably going to find a lot of the details that you're going to be  
4 interested in, in that technical basis document.

5           Frankly, we are looking forward to getting some interactions  
6 going on that in the June 7th through 8th workshop.

7           As far as some of the other things we've been doing, we've  
8 talked to a number of you about doing some updating on the D&D Screen  
9 Model. Version 2 should be available this summer.

10          We also have been work with the RESRAD group to develop some  
11 probabilistic distributions for that particular code, and that also  
12 should be available this summer.

13          One last point: We've tried to get around and talk to some  
14 of you, but the Draft Guide DG 4006, and the Standard Review Plan cover  
15 pretty much the same set of topics. And we have come to a point where  
16 it makes sense to us to merge the two, not have two separate documents.

17          The Standard Review Plan, as with the Reactor Standard  
18 Review Plan, is probably going to get a revision on an every-year,  
19 every-two-year basis, and if you have to carry along multiple documents  
20 in revising them, it gets to be a problem.

21          We do have -- I don't know what the count is, but it seems  
22 like it was 185 comments we had on DG 4006. So we're going to factor  
23 those comments in, and fold them into the Standard Review Plan, so your  
24 comments will be utilized, but we're indicating, don't look for a final  
25 version of DG 4006. The Standard Review Plan will do the work.

        If you've got some feedback on that, today is an opportunity  
to let us know that, but those are our plans.

        At this point, Nick, I think I'll turn the meeting over to  
you, and I'll go out there and encourage a few more people to join you  
at the table. Maybe you're a little bashful.

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1           So, Nick, take it over.

2           ORLANDO: Thanks, John. As John said, what the focus of  
3 today's workshop is to discuss what we've produced so far. The draft  
4 modules have been out for awhile, and I know a lot of you have been  
5 taking a look at them.

6           I've gotten some comments already from some people, via the  
7 Internet and some reference letters. So, you know, what we want to do  
8 today is crisp up anything that you have, or help you crisp up anything  
9 you have, and send it in.

10          As John said, we'll be having another workshop in June to  
11 talk about the technical basis document, and some issues that the Dose  
12 Modeling Group has put together. We'll continue to accept comments. We  
13 had said we'd take comments on the Standard Review Plan through  
14 February.

15          Quite frankly, I'm going to be down in Waste Management at  
16 the end of February, beginning of March, so if they come in by the  
17 middle of March, I -- since this isn't a rule, I'm never -- I don't  
18 think it's fair to say that we would reject any comment or wouldn't  
19 consider any comment that came in almost up until, you know, the  
20 summertime.

21          At some point, I've got to put the last pen to paper, but  
22 I'm really interested in finding out what your thoughts and concerns are  
23 on the document. So, I request, you know, mid-March, latest, but if you  
24 find something really great that everybody else has missed, please send  
25 it in.

        What I would like to do today is a couple of things: Right  
at the get-go, here's our schedule. As John said, what we're going to  
try and do is go through the modules at about one every half hour. Now,  
clearly, the Executive Summary Module, I don't think we're going to  
spend a half an hour on that, but what I'd like to do is, as we go

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1 through, I'll maybe say one or two things about each module, and then  
2 open it up.

3 You all have reviewed them. You all, I think, probably know  
4 what your concerns are. And I'd like to hear what they are and see if  
5 there is anything we can do to smooth everything out.

6 The other issue is that I just do want to make a comment and  
7 say that we have to be very careful as far as trying to reach a  
8 consensus in this group. That runs us a little afoul of the Federal  
9 Advisory Committee Act, so if it seems like we're trying to do that, we  
10 have to back off just a little bit.

11 What I do want to do is, there were two issues that were  
12 raised to me in other meetings and whatnot, on the SRP. The first one  
13 is how does this integrate with the reactor decommissioning process?

14 So the first thing I'd like to do before we kick everything  
15 off, is kind of try and illustrate that a little bit.

16 And then the second thing was, this is an extremely  
17 detailed, apparently prescriptive document. And I'd like to describe  
18 the process that we have sort of developed to make this an iterative,  
19 risk-based approach, and not a very prescriptive approach.

20 So with your indulgence, what I will do is just -- first of  
21 all, the general materials decommissioning process, or my world, if you  
22 will, operations cease. You do a site characterization, develop a  
23 decommissioning plan. We issue a license amendment, authorizing the  
24 decommissioning.

25 You all go out and do your decommissioning, you send in your  
final and confirmatory. You send in your final survey, we do a  
confirmatory survey, and then we terminate the license.

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In the reactor world, it's similar, but just slightly  
different, principally, in the matter of timing of things. For the  
reactors, you have the cessation of operation, then you remove the fuel

1 from the reactor vessel.

2 You either begin the D&D or go into safe store. You send in  
3 your PSDAR, and then your license termination plan two years prior to  
4 requesting termination of the license.

5 You do your final and we do our confirmatory surveys, and  
6 then the license is terminated.

7 Now, the question came up, well, all the information that is  
8 laid out in the DG and in the Standard Review Plan seems to be very  
9 materials-oriented. So in the handouts that I gave you, what I tried to  
10 do is kind of give you a matrix as to what is applicable in each of the  
11 different programs, and sort of when we see these.

12 For example -- and I won't go through each one of these --  
13 but if you look at the license termination plan and the decommissioning  
14 plan, there has to be information on site characterization.

15 For the license termination plan, you have to identify the  
16 remaining decommissioning activities. Well, that's the same thing you  
17 do in your DP.

18 You have a description of the final survey in the LTP and in  
19 the decommissioning plan; methods for demonstrating compliance with Part  
20 20 appear in both the DP and the LTP, and you can go on down the line  
21 there.

22 I think there is also a slide that shows about approval of  
23 the scheduling, which is, I think, where the principal differences occur  
24 in the process.

25 The point that I'm trying to make with this is that you can  
see that there is a lot of overlap in the information. What we plan to  
do is, NUREG 1700, which is the license termination plan, Standard  
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Review Plan for Reactors, where it asks for information on specific  
technical issues like site characterization, or description of the final  
survey or something like that.

1           It will reference the appropriate sections of this Standard  
2 Review Plan. So, instead of bringing all of the information from one  
3 document and just cutting and pasting it into the other, it will  
4 reference it over.

5           So, when you're going through and looking at NUREG 1700,  
6 it's not as detailed as this SRP.

7           The other thing to keep in mind is that there is -- in the  
8 timing, there, too, we would want to be working with the licensees  
9 throughout the process to make sure that the information that was coming  
10 in is of the right type and quality to do the -- to satisfy both your  
11 obligations under the rule, and our needs to be able to review.

12           And one of the things that the Commission told us to do, and  
13 what we want to do with the Standard Review Plan, is incorporate this  
14 iterative risk-informed approach.

15           In order to do that, what I've done, or what we've done is  
16 to develop extremely comprehensive and detailed Standard Review Plan  
17 modules. Those of you that have reviewed it, can go through, and it  
18 pretty much asks for everything-plus, okay?

19           What we will do is establish -- if you all are familiar with  
20 the NMSS Decommissioning Handbook -- and this is where we'll have to  
21 also work with the folks in reactors to figure out how, exactly, they  
22 want to merge this in.

23           But if you're familiar with the NMSS Decommissioning  
24 Handbook, it lays out for materials licensees, different licensing  
25 decommissioning types. Now, that was principally based, in the  
Handbook, on the type and amount of radioactive material that was used  
by the licensee during operations.

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What we're going to do is revise the Handbook to, instead of  
looking at what the licensee did during the operational phase, look at  
what the licensee plans to do for decommissioning.

1           So, right now there is a thing called a Type 1  
2       decommissioning, which would be, say, a sealed source. Very minimal  
3       information is needed from a sealed source user. Principally, they just  
4       send in their NRC 314, which is the Disposition of Radioactive Material,  
5       some statements that they had cleaned everything up, and maybe the last  
6       leak tests on their units to show that there is no potential for  
7       contamination.

8           That will probably stay the same, but we also have Types 2,  
9       3, 4, and 5. What I'm envisioning now is a graded approach where you  
10      would go through and establish the minimum information needs for a Type  
11      2, which would say, for example, perhaps be a nuclear medicine  
12      laboratory, relatively short half-lived isotopes, and they're going to  
13      decommission by decay.

14           They can send their sealed sources off, send the generator  
15      off, and it's all Tech-99 anyway, and they wait a week, and the facility  
16      is clean. They have to send in a small survey.

17           We lay all this out in the Handbook, referencing the  
18      individual sections in the Decommissioning Standard Review Plan, that  
19      this is the information that's needed for each one of these.

20           And then that will be sort of your core information you'd  
21      need to send in. The next step is to meet with the licensees as soon as  
22      we get some indication that you are going to go into decommissioning.  
23      In some cases, it may be the notification of the timeliness rule. In  
24      others, you may come to us a few years before you're even contemplating  
25      it, and say, well, we're thinking about shutting down, and what should  
      we be doing?

          At that point, we'll meet with the licensees and start going  
over, discussing what it is you did, how you did it, and what you're  
going to do to clean it up, and then go through the Standard Review Plan  
and say, okay, yes, you need this, you don't need this, we probably

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1 don't need this information about your particular facility, because  
2 you're not going to be doing a decommissioning that actually -- where we  
3 actually need that kind of information.

4 Then what we'll do is come up with a site-specific checklist  
5 of information that we both think, or that we agree needs to be  
6 submitted. You will then have a copy; we'll have a copy, and you'll  
7 have the Standard Review Plan to see what we need and what our  
8 expectations are.

9 And then we'll have a checklist to have an idea of what's  
10 coming in. The idea is to try and start cutting back on millions of  
11 requests for additional information, and so that you all know at the  
12 get-go, what we're going to be looking for.

13 The next kind of component to this is what we're calling our  
14 streamlined approach to licensing actions. And this incorporates,  
15 again, meeting with the licensees and having an understanding up front  
16 of what we're going to do.

17 Now, under this approach, what we will do is make sure that  
18 everything we're looking for, we truly need.

19 Then the staff, in developing its assessments of  
20 decommissioning plans or other submissions, will develop technical  
21 evaluation reports, or safety evaluation reports, to identify the gaps  
22 that we see in the information that has been submitted.

23 We will then meet with licensees to go over what our  
24 concerns are before you put pen -- or before we send you the formal  
25 requests for additional information. We'll get with in an open,  
publicly accessible forum -- and I want to make sure that everybody  
understands that; that these meetings would be open to the public, and  
observable by whoever is interested.

Go over what our concerns are, make sure you know what they  
are, see if there is anything that we can take care of or clear up

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1 without having to send in an information request; make sure you  
2 understand exactly what we're looking for, and then try -- and I say,  
3 try -- to keep our requests for additional information to a single set.

4 Now, those of you who have complex decommissioning sites  
5 know that that is a laudable goal, but I'm not sure if we're going to  
6 make it, but, you know, you've got to shoot for something.

7 So, this approach is incorporated into the Standard Review  
8 Plan, and it's discussed in actually Section 0, which is the how-to-use  
9 section. So, thoughts on that would be appreciated, too.

10 Then, finally, to make sure that this process actually -- or  
11 to hopefully make sure this process actually works, we'd like to do --  
12 we're going to publish the Standard Review Plan in July of 2000, and it  
13 will be Rev. 0.

14 At that point, we'll track the issues and implementation  
15 questions and problems that may arise, and in two years or thereabouts,  
16 reconvene the process and find out, is it working, what isn't working,  
17 has anybody found a way to perhaps make it a little bit better?

18 So, that's sort of the philosophy of how we hope this  
19 document will work. We've planned in a step-back and take a look at it,  
20 and see if it works, to maybe with Rev. 1 or Rev. .1 or whatever, can  
21 use some polishing, you know.

22 And as John said, a lot of times this information changes on  
23 every couple of years, so there may be more than one revision to it.  
24 But the idea is, plan in a step-back and take a look at everything. So,  
25 I'm hoping to see everybody in June and I'm hoping to see everybody in  
two years.

Are there any questions on any of the things that I've gone  
over? One thing, for those of you that haven't been in this venue  
before with us, the meetings are being transcribed. Jon is the  
transcriptionist.

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1 Please state your name and your affiliation each time you  
2 have something to say, so that we can identify you in the record.

3 And the NRC Regional Offices have also been piped in. So,  
4 Paul?

5 GENOA: Paul Genoa for Energy Institute.

6 ORLANDO: Speak right into the mike.

7 GENOA: Paul Genoa with the Nuclear Energy Institute. Nick,  
8 my question would be the schedule for getting SRP. Do you expect that  
9 the NUREG 1700 will be revised prior to that, or not?

10 PITTIGLIO: Larry Pittiglio. NUREG 1700 will probably issue  
11 prior to that. The document is currently with our Generic Review  
12 Committee for review. It has been revised to reflect comments that were  
13 provided during the public comment period, as well as to be made  
14 consistent with the SRP and some additional cost guidance that NRR is  
15 currently under development with. We anticipated it should be issued  
16 within the next month and a half to two months.

17 GENOA: Thank you, Larry. And that would be pointing to the  
18 relevant sections of the SRP as you discussed?

19 PITTIGLIO: Yes.

20 GREVES: Thank you. That's very helpful. I think there was  
21 another question at the table.

22 GOODMAN: I'm Lynn Goodman out of Fermi I. The question I  
23 have is dealing with that dose modeling guidance, the appendix, as far  
24 as when that would be available. Would we be able to see that before  
25 the June meeting?

ORLANDO: Bobby Eid and Chris McKenney are all on the dose  
modeling group, so I'll turn that question over to Bobby.

EID: This is Bobby Eid. The technical basis, the comment  
in support of the dose modeling, we anticipate to be ready on the Web by  
April, and we will have, of course, the public workshop meeting in June

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1 to discuss those technical basis comments.

2 GOODMAN: I've got a followup. Again, this is Lynn Goodman.  
3 The NMSS Handbook, would that also be available in the same  
4 timeframe?

5 ORLANDO: No. I am going to focus on revising the NMSS  
6 Handbook after we finalize the Standard Review Plan. I want to make  
7 sure that the document that I'm referring to in the Handbook is the  
8 final document.

9 Also, I think I'm going to be fairly busy between March and  
10 July to finalize the Standard Review Plan, so I don't think I'll have  
11 the time.

12 But I hope to have the Handbook done by maybe late Fall,  
13 early Winter.

14 GREVES: John Greves. I'm a little concerned about too many  
15 documents. My advice to you is, look, whether you're a reactor or  
16 materials facility, you have to comply with Part 20. That's that whole  
17 business of confusion.

18 There's no confusion about what you have to comply with.  
19 Part 20, that's the termination.

20 And this Standard Review Plan and all the things we've been  
21 talking about in these workshops, would guide you in material or a  
22 reactor licensee through how do I do that? It's complicated, and  
23 probably -- Standard Review Plan in this technical basis document,  
24 that's probably all you're going to.

25 If you get too worried about the handbook, you're going to  
be -- it's going to take awhile. The document was principally written  
for us internally, and what exists there now is out of date.

So, frankly, I don't know how you're going to keep an eye on  
all these documents. That's why we've collapsed the G4006 into the  
Standard Review Plan. And my advice is to look at the Standard Review

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1 Plan, come back in June, work with us on the dose modeling effort.

2 And if you can absorb that much and help participate that  
3 much, I think you have a big leg up on the process.

4 ORLANDO: To follow up just a little bit on what John said,  
5 maybe -- I hope I didn't mislead anybody on the handbook. The handbook  
6 is the regulatory framework for the NRC staff to manage a  
7 decommissioning project here at headquarters or in the Regions.

8 It lays out the different steps that PM needs to do from  
9 when the decommissioning plan hits their desk to license termination.  
10 We published it as a NUREG, and I can't, off the top of my head,  
11 remember what the NUREG number was. But if anybody's interested, I can  
12 get that for you.

13 But we published it as NUREG so that materials licensees  
14 would understand the process and the steps that the staff goes through.  
15 I know our staff in the Regions do use it. I'm not sure to what degree  
16 licensees are using it.

17 Again, I will emphasize that it is the NMSS Decommissioning  
18 Handbook, and it is very -- and it is materials-oriented.

19 PITTIGLIO: Larry Pittiglio. Nick, let me just clarify one  
20 thing. NUREG 1700 addresses both the requirements of reactors of 50.82,  
21 as well as the requirements for Part 20, so there are two regulatory  
22 requirements that are identified and addressed in the NUREG 1700.

23 FORD: Bryan Ford, Millstone I. I guess, going back to your  
24 comment over the SRP and the regulations should be what we're focused  
25 on, not some of these other documents like the Handbook --

GREVES: I was giving a caution.

FORD: Well --

GREVES: If I sat in your chair and I had to be familiar  
with all of these documents, it would be tough.

FORD: And we understand that. I guess one of my problems

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1 would be that the Standard Review Plan, without those documents, to me,  
2 doesn't seem to meet the goal of being risk-informed. Maybe when you  
3 have a document out that shows which parts apply -- it can also be very  
4 misleading to others and to us over what are the requirements, without  
5 guidance that says these sections don't apply to -- licensees, because  
6 there are different regulations that apply for the different types of  
7 licensing.

8 In some cases, this has picked on path or the other. So I  
9 guess that in my view, this isn't of much -- until you have the guidance  
10 -- to the public, the licensees, NRC that's -- how it's supposed to --

11 I hope that comes out for public comment so that we have a  
12 chance to look at it. It's kind of the same thing on the NUREG 1700. I  
13 guess I've just heard that there is information being added to it to  
14 refer to this document, and I'm not sure that that was in the document  
15 when it came out for public comment earlier. There is a whole group of  
16 new information going in that no one has had a chance to comment on.

17 GREVES: I was trying to simplify and sort of articulate it  
18 but the process -- I am trying to put myself in your shoes. What you  
19 have to deal with is Part 20. That's the regulation that puts out these  
20 guidance documents, one, to help sales, and two, they help you too,  
21 also.

22 I think with Part 20 and this Standard Review Plan you have  
23 got enough to get through this process with your materials licensee or a  
24 reactor licensee. The other documents are useful and 1700 is needed to  
25 target some things in terms of the process but the Handbook was written  
when, Nick?

ORLANDO: '95 -- came out in '96.

GREVES: It's a '95 document. Should I move to another  
& microphone?

ORLANDO: No, just sit a little closer.

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1 GREVES: Can the audience hear me?

2 THE REPORTER: It is breaking up.

3 GREVES: Okay. Anyhow the Handbook is a '95 document. This  
4 rule went in place in '97 so I know there are errors in the current  
5 Handbook. Nick has an ambitious agenda to revise the Handbook. That  
6 takes a lot of horsepower and we have a commitment to the Commission to  
7 get this Standard Review Plan done this summer, so I am not going to  
8 have him marching off doing a Handbook when we have got to do the  
9 Standard Review Plan, so I just wanted to caution you, don't over-read  
10 what is in a '95 Handbook or don't over-read what you might be getting  
11 out of a revision of that because it will take time.

12 Nick, help me out if I have --

13 ORLANDO: Yes, and I think what we want to do is as we are  
14 developing the revised Handbook you will be meeting with the Staff. The  
15 key to this is meeting the embodiment of the iterative risk-informed  
16 approach as you meet with the Staff, okay?

17 You go over your site. You go over your decommissioning  
18 objective and how you are going to get there. The Staff at that point  
19 has the Standard Review Plan, which has, as I said, questions and  
20 answers to everything you could conceivably want in a decommissioning  
21 plana, and at that point you go through and say okay, we need this -- I  
22 need Bullet 1, 3, 5, 7, 10, 15 and 22 of Section 13.2.

23 That is the iterative risk-informed approach. This way we  
24 are only asking for information we truly need, and you then have  
25 examples or you do have our expectations for that in written form and  
that is why we wanted to get sort of a technical document, if you will,  
out first before we start saying okay, would a sealed source  
manufacturer need to -- which of these bullets would a sealed source  
& user need to turn in.

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Until I have those bullets carved in stone, as it were,

1 through this process, I am not going to know, but as John said, we do  
2 have a pretty ambitious schedule to try and get the Handbook out after  
3 we get the Standard Review Plan out. I trying to build it from the base  
4 up as opposed to from the pinnacle down, so I can start referencing in  
5 one document something in something else. It would be nice have that.

6 FORD: Bryan Ford again. The only problem is problem is  
7 that makes it very difficult to review the SRP and make meaningful  
8 comments.

9 ORLANDO: Well, then I would say if I could --

10 FORD: That's all.

11 ORLANDO: -- focus the comments on what the information is  
12 asking. Are the -- you have got a piece of information there. See if  
13 the expectation is what you think you can do, if you think that is  
14 reasonable. That is sort of what we were thinking about, as opposed to,  
15 well, do I have to turn that in or not?

16 If it is something that you are pretty confident is never  
17 going to apply to your facility, don't worry about it.

18 GREVES: Is it Bryan?

19 FORD: Yes.

20 GREVES: I don't know what stage you are in but as I  
21 articulated in my opening remarks, I am pleased with the experience that  
22 I am seeing with the Applicants that are coming in the door with an  
23 incomplete Standard Review Plan. They got the message, the ones that  
24 are coming in the door. George, sitting next to you, has a product on  
25 the table and we have interacted a lot with him so he's found a way to  
come forward -- hasn't been reviewed yet but got through the door, same  
with Trojan, sat through a meeting with Nuclear Fuel Services in  
December. They understand what is needed and they demonstrated that in  
terms of what they showed in December so the people that have this front  
and center have the message, apparently have the tools --

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1           FORD: I guess I was more worried that we put this guidance  
2 out and now we are saying we leave it up to the individual staffer to  
3 decide whether it applies or it doesn't. Sorry -- I guess my only  
4 problems was we're saying we are going to leave it up to the individual  
5 staffers going forward to determine what parts apply and what parts  
6 don't apply, which makes it sound like it's going to be relatively  
7 inconsistent from one Licensee to the next -- as least previous history,  
8 not necessarily with this branch, but on other issues. That's all I was  
9 trying to say.

10           GREVES: In fact, I would like to meet with you separately  
11 and just make you feel a little better about the process. We're  
12 probably tying up too much time here, but I am listening and let's spend  
13 some time together and I will answer your question.

14           ORLANDO: I think Bryan raised a very good point and if you  
15 don't see me writing it down, it's not because I am not listening. It's  
16 I am listening and I am letting Jon over in the corner write it down for  
17 me.

18           But I think you raised a good point. I think it does show  
19 that there is value to having a framework type document like a Handbook.  
20 The best thing that I can say is I would like to again build a technical  
21 document first, and then once those technical requirements are well  
22 established between what we want and what is acceptable, then start  
23 figuring out if you need to give me that and try and go that route, so  
24 we will -- I think in the end we will have a good process together.

25           MR. DUVALT: Ken Duvalt. I have a quick question on this  
topic of documents. How does NUREG-1549 fit into this? Is it going to  
get rolled up into the technical basis document?

          MCKENNEY: Chris McKenney. The NUREG-1549 will still stay  
as a separate document. It will be finalized in nearly the same time  
period as the technical basis. It is not at the same level of detail as

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1 what we want in a technical basis document, but it also provides a --  
2 overall it is a general procedure of the same, so there is no reason to  
3 get rid of it and there is no reason to put it all in the Appendix from  
4 that point of view.

5 GREVES: 15.49 is basically the dose modeling framework and  
6 it is being used. Nuclear Fuel Services used that document in December.  
7 It is a roadmap of how you walk through dose modeling.

8 DARMAN: So it is an additional document that helps you  
9 list -- as you indicated.

10 GREVES: Yes, it is an additional document and I think it's  
11 quite useful. As I said, it is being used by the Licensees and I think  
12 it has served them well.

13 EID: This is Bobby Eid. Regarding 15.49, it will be, many  
14 aspects of 15.49 will be included in the SRP dose modeling module.  
15 However, there are certain areas where it is not covered in the SRP dose  
16 modeling module. It still will be referring to 15.49 and as John said,  
17 it will be used, so it is not going to die. It is going to stay.

18 We are not sure if it is going to be -- I think it is -- it  
19 is not in draft. It is like, you know, we refer to it and we reference  
20 to it and it will include whatever is applicable in the technical basis  
21 documents. However, it will stay as an independent document.

22 ORLANDO: Okay. I would like to move on so that we can keep  
23 to the schedule as best we can. I suspect that we probably won't spend  
24 a whole lot of time on the executive summary or even perhaps the first  
25 module, but in the event we do, I don't want to run over.

Apparently there may be some weather issues tomorrow, so we  
will try and catch the Weather Channel maybe at the afternoon break, and  
maybe have to modify things accordingly.

The first module, and I have put the -- sort of the table of  
contents up on the screen behind me. The introduction, how to use

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1 portion, is out on the web, and I sort of went through that. It talks  
2 about how we hope to use the iterative process and target the  
3 information that we need to specifically -- to each individual site.

4 The next section in the Standard Review Plan is Section 1,  
5 the executive summary. The idea behind having an executive summary is  
6 just to give the Staff a quick overview of what exactly you all intend  
7 to do.

8 One of the things we do in a document when a decommissioning  
9 plant comes in is we do a 30-day or we will be doing a 30-day acceptance  
10 review. One of the things we want to find out very quickly is are you  
11 using the appropriate -- or have you done all the necessary steps that  
12 you have needed to do, are you going with the right DCGLs or have you  
13 developed your DCGLs, how are you going to do your surveys, and if you  
14 are going for restricted use, have you undertaken all of the public  
15 outreach activities that you are required to do under 10 CFR 20.1403.

16 The executive summary is not meant to be particularly long.  
17 It is just the Staff in half an hour do a quick read and say, okay,  
18 looks like we can move on to going through the document in a stepwise  
19 fashion and check and make sure that all of the information is there.

20 What I will do, I guess, is just open it up and say does  
21 anybody have any comments then on the executive summary?

22 [No response.]

23 ORLANDO: See, I told you that that one wouldn't take a half  
24 an hour to go through.

25 Okay. The next module is the facility operating history.  
This in conjunction with the facility description is meant to give  
enough information to the Staff to allow them to understand the types of  
radioactive material that was used at the site and in some ways it will  
be incorporated almost into an environmental report type format. The  
idea here is to just make sure that the project manager who may be

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1 coming on board, may be hearing about your site for the first time has  
2 some idea of what you have done, where spills have occurred, different  
3 types of radioactive material you have used, different activities that  
4 you have undergone, whether licenses have changed, whether you have gone  
5 from a very, very broad license down to a specific license, whether you  
6 have added or removed radionuclides from your license, authorized  
7 license possession criteria throughout the life of your site.

8 Does anybody have anything that they want to say about the  
9 facility operating history? Good. You're out there. I'll start at  
10 this end of the table.

11 CULBERSON: This is kind of a lead-in to one of the general  
12 comments I wanted to make. I will get to all of them eventually.

13 I think the SRP, if I were in the Staff's position I would  
14 use it as a go-by for what to expect to see from a decommissioning plant  
15 that is being submitted. In a sense, I think it is likely just  
16 logically going to become somewhat of a checklist of things to look for.  
17 Going back on some of the earlier comments, it should have enough  
18 guidance in there that it is a graded type of a checklist so that some  
19 items will not be viewed as required, if you will, minimum required  
20 information.

21 This facility operating history is an area where I think  
22 there is going to be a great deal of disparity because there's a lot of  
23 information that may simply no longer be available. It's never  
24 retained. It's never required to be retained. There is a new rule in  
25 the past few years that required facilities to maintain important to  
decommissioning. That requirement was not there before, so there is a  
lot of important, I think, operating history that for future Licensees  
would be available, for some recent Licensees probably is available, for  
some of the older Licensees probably not available.

I think the SRP should include words to the effect that it

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1 should be a best effort kind of thing and if the information is simply  
2 not available then the effort shifts away from that so that there is an  
3 acknowledgement that certain information may not be available from any  
4 Licensees that have been around for quite awhile.

5 That carries kind of throughout, just recognition of that,  
6 and I think the SRP needs to include language that advises a reviewer  
7 that you may not see this and the Licensee needs to address the fact  
8 that it may not be available but just a recognition of that fact. I  
9 think that gets into that graded approach you were talking about.

10 ORLANDO: Right, and that also folds into the meeting with,  
11 the approach of meeting with the Licensee before you start to develop  
12 your decommissioning plan and developing a site specific list of things.

13 There is no point in us sending you a request for additional  
14 information that says I want to know everything you did from 1955 to  
15 1965 and the response back is we don't have it. We can work that and  
16 through the process as you are developing your DP.

17 This is trying to mesh a lot of things, and again, to  
18 Bryan's concern, you know, the graded approach -- if we can't get it, if  
19 we need it but we can't get it, then we have got to work on something,  
20 so yes.

21 Now you are going to be submitting all this in writing,  
22 right?

23 CULBERSON: Yes.

24 ORLANDO: Okay, good.

25 GENOA: Paul Genoa, NEI -- really two comments.

26 The first has to do with language, talking about controlled  
27 releases or defining a controlled release as a spill. We have a real  
28 problem with that. We are authorized to make controlled releases. We do  
29 it all the time, and to try to turn around and report on those as if  
30 they were spills -- you need new technology.

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1           Again, the comment is that in the definitions of a spill is  
2 included controlled or uncontrolled releases. That is inappropriate.  
3 Facilities make controlled releases, liquid and gaseous effluents,  
4 through their operations. They are not going to turn around and report  
5 on those the way it is described in the document.

6           A second comment would be a recommendation, and that is that  
7 at least reactor Licensees have two different information gathering  
8 requirements imposed on them already.

9           One is in 50.75(g) the need to maintain a decommissioning  
10 record or decommissioning file that would include spills and information  
11 important -- radiological information important for decommissioning, so  
12 I would recommend that the SRP direct the Licensee to provide that  
13 information rather than invent a new requirement that goes beyond that  
14 or is different.

15           There is also an I&E notice -- I believe it is 80-10 --  
16 which instructs the Licensee to look at their systems and determine  
17 where cross contaminations could occur or have occurred, a record of  
18 those things so there are some tools out there that it would make sense  
19 to be identified and determined acceptable if in fact you think they  
20 are.

21           ORLANDO: Okay, in the context of the operating history and  
22 the spill, what we were looking for there is -- and yes, controlled  
23 releases are allowed. They are allowed in reactors and they are allowed  
24 in material sites also. However, in some instances a material, say,  
25 going out of a pipe or something, can result in some material being  
deposited at the end of the pipe. That is the kind of information we  
are looking you -- you know, is that going to be an area where there may  
be some -- over time that could build up from to a level that would need  
to be remediated. That is I think what we were looking for.

          The idea of yes, there are controlled releases and gaseous

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1 effluents in water, I am not looking to see you records of effluent  
2 releases over the life of the facility, but as you know, there may be  
3 some instances where material has within your facility property gone  
4 through a controlled manner off, at least in some of the materials  
5 sites, and it has ended up in pipes and things like that, and that is  
6 kind of what we are interested in.

7 GENOA: Okay, but a typical effluent release is -- I mean we  
8 have released the material. We have environmental monitoring around the  
9 sites. We have identified all that activity. We have done annual or  
10 semiannual reports over the entire operating life of the facility. We  
11 don't need to regenerate that kind of --

12 ORLANDO: No, not the release numbers, just, you know, is  
13 this where something may have happened?

14 GENOA: Okay.

15 ORLANDO: I think Felix had a question.

16 KILLAR: Felix Killar, Nuclear Energy Institute. I just  
17 have a question of clarification.

18 You had mentioned earlier that you are looking to combine  
19 the Standard Format & Content Guide with this SRP, yet in several  
20 sections in here you refer back to the Standard Format & Content Guide.  
21 Is that what you mean by combining them? I would have assumed that it  
22 would have been just one document, rather than being referred back to a  
23 document.

24 ORLANDO: That is something I have got to work on. I think  
25 the Standard Format & Content Guide that we have got out there now is  
going to be what we end up using, but I have got to make sure -- that is  
one of the things I am going to try and do as far as the content.

26 The format and content that is discussed in there,  
27 specifically when you look at the physical specification section of  
28 3.65, that talks more about ink, margins, things like that.

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1 KILLAR: I am referring to when you are providing suggested  
2 formats under say, like for instance, 2.2 you talk about it's just  
3 formats, and you say physical specifications, blah blah, yes, that is  
4 specifically what I was referring to.

5 ORLANDO: We will bring that in as an appendix then, and  
6 just make it one document, because that basically, yes, that section of  
7 the 3.65 pretty much deals with, like I said, headings and fonts and  
8 colors and how to submit stuff and things like that. Yes?

9 NARDI: Joseph Nardi, Westinghouse. I would like to build a  
10 little bit on the comments that Dave Culberson made about the complexity  
11 of gathering information.

12 One of the facilities I was involved with started in 1915,  
13 which predates all licensing kind of operations. It involved natural  
14 radioactive materials. The other complication that you get into is the  
15 problem of some of our facilities are licensed both by the state and the  
16 NRC, and when we are trying to do decommissioning, it is impossible  
17 really to separate those two, and we make no effort to do that in terms  
18 of surveys or documentation, and when we are writing things I would much  
19 prefer to have some mechanism by which the NRC recognizes this, that  
20 there may be multiple agencies involved.

21 In some cases we even get into the chemical issues, the  
22 EPA-type issues and our decommissioning effort is all comprehensive. I  
23 hate to start preparing multiple documents and keeping them all  
24 coordinated. I would much prefer to have one document, even though  
25 there's multiple agency review or interest.

ORLANDO: That is a good comment. One of the things we try  
and do when we do a decommissioning, at least the ones I have been  
involved with, have included the state as a co-regulator, both for the  
radioactive or the hazardous as appropriate. We actually have a couple  
state regulators here at the table, and I think one of the keys is they

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1 would need to be involved in those early-on meetings also and if there  
2 are additional pieces of information that they may need.

3 Now what I will say is I wouldn't expect to see chemical  
4 remediation information detailed in a decommission plan. That would be  
5 asking NRC to review and approve something that it doesn't have the  
6 authority to do.

7 The mechanism to mesh all of that kind of stuff together is  
8 I think built on everybody who needs to be in the room at the same time  
9 at the get-go being there, so that is the NRC Staff's responsibility is  
10 to make sure that all the players are at the table.

11 NARDI: I think the point I was trying to make -- Joseph  
12 Nardi, Westinghouse -- I think it is appropriate to incorporate all that  
13 information in the same document and you have to be flexible enough to  
14 recognize that certain sections of it you may not want to comment on,  
15 and that particularly comes down to when we are preparing reports of  
16 what we have done.

17 One of my sites we are doing a tremendous amount of  
18 groundwater modeling and everything regarding TCE's contamination event,  
19 but it incorporates a lot of radiological information because it is  
20 convenient to do both at the same time, and we are submitting those  
21 documents one document. I don't want to separate things out because it  
22 just complicates the issue of trying to understand what is going on.

23 ORLANDO: Okay. Good point. Dave?

24 ALLARD: Dave Allard, Bureau Director, Pennsylvania DEP.

25 I would support what Joe has said. We are incorporating NRC  
regulations by reference once we approach Agreement State status here  
over the next few years, and I would utilize all the NRC supporting  
information here in reviewing these license terminations and  
decommissionings.

Where we do have overlap with our NARM licensing we would

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1 utilize these documents also, and I would also encourage you, if there  
2 is chemical contamination, that helps the other side of the house as far  
3 as the chemical cleanup and review, if that is all in one place, if it  
4 makes sense to do that.

5 ORLANDO: Anybody else?

6 [No response.]

7 ORLANDO: Okay. The next section, three, is the facility  
8 description and probably the most detailed bunch of guidance in the  
9 first several sections is in the facility description. Yeah, there is a  
10 lot of stuff there.

11 There is also a lot of stuff that you probably didn't have  
12 to submit when you went for your license, but again the thrust here is I  
13 had to come up with every conceivable thing that we might need and to  
14 develop an acceptance criteria in the event we did need it, but I see  
15 Paul wants to make a comment, so go ahead.

16 GENOA: Paul Genoa, NEI. The best way to respond was are  
17 you nuts? I mean --

18 [Laughter.]

19 GENOA: -- when we looked at the amount of information we  
20 were overwhelmed and of course our comments are all colored by the fact  
21 that we don't know what applies and what doesn't. That is why we are  
22 having trouble, and I'm glad you gave the presentation early that you  
23 did that says that we are going to have a document that pinpoints what  
24 our requirements are but fundamentally our comment was if you looked at  
25 this and really worked at it, you would have on the order of 75 to 80  
pages of detailed comments on everything.

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You would have better characterization than we have on our  
current operating plants and probably more than you would have for a  
Part 61 disposal facility. That just seemed a lot. Now I guess if we  
are going to say that is the worst case or we're going to back off of

1 that to what we need I don't have -- then maybe you're not nuts.

2 ORLANDO: I won't argue with you on the last statement,  
3 although you are not the first who has raised that. When I handed it to  
4 my boss, he said "Are you nuts?" and I said, well, the issue again is --  
5 you may not need to turn in but a tenth of that information and, quite  
6 frankly, a lot of that information especially for the more complex  
7 sites, already exists. I mean you had to have done it to generate the  
8 environmental report to support the EIS that was developed for your  
9 site, so as far as going out and, you know, doing it from wholecloth,  
10 apparently not. There are some facilities out there though that will  
11 have to develop some pretty sophisticated and in-depth information,  
12 especially if they are going to go for something other than unrestricted  
13 use.

14 We have some situations now I understand where Licensees are  
15 coming in with proposals or thinking about coming in with proposals for  
16 leaving some material on-site and going into the restricted use route.  
17 You know, that material will have to be or that request will have to be  
18 looked at pretty carefully to make sure that all of the different  
19 potential pathways are addressed and everything else, so again, yes,  
20 there is a lot of information discussed in there and that is how I would  
21 like to term this.

22 There is information discussed. It is not required yet.

23 GREVES: That is a good point that -- one of the things that  
24 I think is missing that I haven't seen in here is the guidance to the  
25 reviewer that this is a thought process to go through -- this is the  
kinds of things you have to address and that you scale down from that as  
appropriate for the site, for the conditions, for the plan for  
decommissioning.

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I am concerned and I think others may be too that this 10  
years from now to a new reviewer would become a checklist and you could

1 expect to see all of this without any guidance or direction to the  
2 reviewer to the contrary that says think about all these things but look  
3 at the site and the specific circumstances and meet with the Licensee  
4 and then decide what is appropriate and what is not.

5 I didn't see that in guidance for applying the Standard  
6 Review Plan. I may have overlooked it but I know that your intent is  
7 well expressed -- it is in the front part -- but I think that needs  
8 strengthening.

9 ORLANDO: Yes. Well, one of the things too that we are  
10 going to end up doing, as you can probably imagine is that I am going  
11 to, once everything is in place we will be going out to the regions and  
12 talking to them about this, training and whatnot. At least that is what  
13 I have been told to be thinking about, so yeah, you're right.

14 I have thought about exactly the things you guys are talking  
15 about. We do have a "how to use" section that says get with the  
16 Licensee, figure out what is absolutely needed, develop a checklist. In  
17 fact, you keep referring to that. I actually already have a checklist.  
18 It will be one of the appendices at some point to the document, and it  
19 will be -- actually, I am contemplating two at this point -- one, a  
20 technical evaluation checklist, and second, an acceptance review  
21 checklist.

22 The acceptance review checklist would be something that  
23 would be developed from the meetings, the early meetings that you would  
24 have with the Licensee where the reviewer and the Licensee would sit  
25 down and say yup, we need to send this in. That would be included on  
the checklist. That checklist would then follow the file, if you will,  
and when the decommissioning plan comes in, the site-specific checklist  
would be available. You would have it and we would have it.

I mean that is a concept that I am working with right now so  
that when the Licensee leaves the NRC at that initial meeting you'll

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1 know what you are going to send in and will know what you are going to  
2 send in, so I agree with you and it didn't take much of a stretch just  
3 to figure out that you could take a bullet and turn it into a line and  
4 make a check next to it, but yeah, that was part of the thought process.

5 MAIERS: Bob Maiers, Commonwealth of Pennsylvania. Nick, I  
6 think this might be covered in some later sections, but I think it might  
7 fit well in either this section or the previous section.

8 But a description of historical offsite disposal practices  
9 would be a nice thing to know right up front. A case in point: One of  
10 our licensees in its history was disposing of their material at local  
11 land fills, and we caught that in a filing review.

12 But it just seem appropriate that some description of  
13 offsite disposal practices would be appropriate, in either this section  
14 or the previous section.

15 ORLANDO: I assume you mean non-routine? In other words, if  
16 it was going to a low-level waste disposal -- a licensed low-level waste  
17 disposal facility, I mean --

18 MAIERS: That's okay, yes.

19 ORLANDO: That would have been covered in the operating  
20 license anyway.

21 MAIERS: Right.

22 ORLANDO: Perhaps a section on unique disposal practices.

23 CULBERSON: Dave Culberson. A question there: Are you  
24 referring to just the radiological materials, or are you talking about  
25 everything?

MAIERS: Radiological materials.

ORLANDO: Anybody else?

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26 DUVALL: Jim Duvall. I just wanted to point out that this  
particular module and the previous one applied to very critical  
information input into MARSSIM, in terms of the historical site

1 assessment.

2 And I think we should ensure that the discussion in those  
3 two modules, the discussion of those two modules does provide the  
4 appropriate information that is needed in MARSSIM in historical site  
5 assessment.

6 This is a critical area where the classification schemes and  
7 the whole planning process begins, and this information is very critical  
8 as to which path is proceeded on in terms of what the classification is.

9 ORLANDO: Yes, and that is one of the things that we have  
10 tried to do, is make sure that as best we can, although as you can  
11 probably tell a little bit from the style, the modules were not all  
12 written by the same person.

13 We tried to make sure that all of the information that -- it  
14 may appear in separate sections, and we'll try and reference back where,  
15 if you supplied it here, you don't necessarily have to put it here, or  
16 maybe you could just reference it on a section of your own  
17 decommissioning plan.

18 Anything else?

19 ZINKE: George Zinke, Main Yankee. You know, one of the  
20 items asked for is list of minority populations by compass vectors and  
21 demographic data by Census block group to identify minorities or  
22 low-income populations.

23 For a Part 50 plan, I mean, that's not something that we did  
24 or do. Is that something that you really are expecting all licensees  
25 are going to provide you?

ORLANDO: No, not necessarily.

ZINKE: What's the criteria?

ORLANDO: At the beginning of that document, of that  
& particular section, it does say that the majority of the information  
OCI here would be applicable to sites that are going for restricted use.  
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1           One of the things that we have to keep in mind is our  
2 information notice 95-50, I think it is; the one that deals with  
3 minority populations, that we do have to take a look and ensure that  
4 there are no impacts from the decommissioning.

5           Now, again, if you're going for unrestricted use, you  
6 probably wouldn't need to turn that in. But if the situation was such  
7 that there was going to be large amount of material left onsite, under a  
8 restricted use scenario, that information might be important.

9           And we do have to make -- and I can't -- I feel bad that I  
10 can't remember the name of the document. If anybody from the NRC staff  
11 can help me.

12           We do have some requirements to take a look at the impacts  
13 on minority populations.

14           ZINKE: Would it be the Handbook that would then say this  
15 doesn't need to be submitted if you're going unrestricted? Would that  
16 information be there?

17           ORLANDO: That would be an appropriate place. That would be  
18 sort of the core information for, say, somebody who was going for a  
19 restricted use type scenario; it might be. It also would end up  
20 possibly being in the environmental impact statement that we would have  
21 to generate.

22           EID: This is Bobby Eid. I believe this is because of the  
23 NEPA requirement in case you need to prepare the EIS. It is required to  
24 assess the population and the minority population within that area. It  
25 is required, I believe, in NEPA.

          There are some computer codes that EPA developed where you  
could, based on the distribution of income and sources, you could  
actually classify the areas and indicate whether there will be  
minorities in this area or not.

          The concern is that maybe there are certain actions that

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1 would be taken that may impact minority groups more than others, and  
2 then other areas where they have lower income.

3 I think it's related to the income rather than to the  
4 specific minorities.

5 ORLANDO: It's all of those.

6 EID: I think it's both the income and the minority groups,  
7 so it is a NEPA requirement. What I want to say is that it is a NEPA  
8 requirement that you need to address this issue.

9 ORLANDO: It's actually covered under our requirements to go  
10 for environmental justice, so -- Well, that one raised several hands.

11 GOODMAN: Lynn Goodman, Fermi I. Just looking through the  
12 words here, I think it needs to be better explained that some of this is  
13 needed more for restricted use. I don't see that in the introduction to  
14 that section.

15 ORLANDO: Okay, it's on page 2, up at the top. It talks  
16 about specific -- it's rather vague there, I'll admit. I was looking at  
17 specifically the last one on there that says having onsite disposal  
18 cells for radiologically contaminated decommissioning waste.

19 But if you didn't catch it with the first read-through, then  
20 it does need to be better pointed out. That's one of the things that --  
21 one of the criteria I hope to include in this thing is that if you can't  
22 catch it the first time, then it obviously needs to be polished.

23 GOODMAN: Thank you.

24 SEXTON: Dick Sexton, Connecticut Yankee. I guess I might  
25 have a similar comment, but I guess it's from the perspective of other  
stakeholders that will use this standard review plan to evaluate  
adequacy of that license termination process.

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But I think it's important that also consider other  
audiences other than NRC or the licensee. The document in some sense  
has to at least address the possibility of other stakeholders -- this

1 document as a way to evaluate the adequacy of license termination plans  
2 that are being submitted in their community.

3 And they want to understand if the license termination plan  
4 is being submitted by a licensee in their community is adequate. I  
5 guess, as I would look through this document as a member of the public,  
6 and then look at even the license termination plans that have already  
7 been or have recently been submitted, find that they would appear to be  
8 inadequate, just based on a quick read of this document.

9 ORLANDO: That's a very good comment, thank you. I think it  
10 stresses the need, I think, to make sure that the process is understood,  
11 as well as what the information is, and that process is to tailor  
12 everything for the site. But, again, that's a good point.

13 Paul?

14 GENOA: Paul Genoa, NEI. We're kind of revolving around a  
15 theme, and there are several elements to that theme. I think one of  
16 them you just heard is that the external world will look at this and  
17 judge the adequacy of the licensee and the NRC's action.

18 The second thing, and it was sort of alluded to earlier; we  
19 applaud your interest in trying to do a risk-informed approach to this.  
20 We want to encourage that.

21 However, we also need some kind of certainty. There have  
22 been experiences in the past where licensees get ratcheted by different  
23 people reviewing it because there was flexibility to do that.

24 We certainly would like to know that you are willing to  
25 remove requirements that aren't appropriate. But if it's sort of  
nebulous -- you know, if we have to come in, everyone has to come in and  
do a meeting, then that changes over time, what are the constraints on  
the staff to be reasonable in their request over time?

What is the regulatory basis to ask for this additional  
information? And out of pure expediency, the licensee could be held

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1 hostage to these requirements. We're nervous about that, I guess.

2 So, on the one hand, we'd like it real prescriptive; do X,  
3 Y, and Z, and you're okay. We know how to go do X, Y, and Z, but on the  
4 other hand, we'd like the flexibility to say, well, in this case, Z  
5 makes sense; in this case, it doesn't.

6 So, that's the dilemma, and I think that is where you're  
7 getting some of this feedback. It's fear.

8 ORLANDO: I understand that. You know, that's what I'm  
9 hoping that this will do. I like your analogy that you're good at doing  
10 X, Y, and Z, build in the flexibility to determine what X, Y, and Z is,  
11 and that's what we're -- I'm trying to lay out what X, Y, and Z is.

12 Now, do you have to actually do X, Y, and Z? So, I'm hoping  
13 we're not two trains heading towards each other; I hope we're two trains  
14 going in the same direction.

15 But where you're trying to get to, and where I'm trying to  
16 get to, I think, is the same point.

17 Anybody else on facility description?

18 [No response.]

19 ORLANDO: Okay, we are moving right along. It is 9:53, and  
20 we are well ahead of schedule, which is good.

21 Okay, radiological status of the facility. Does anybody  
22 have any questions or comments or thoughts about that? Please, as you  
23 come to the mike, state your name.

24 DARMAN: Joe Darman, Maine Yankee. I guess, just building  
25 on that X, Y, Z philosophy there, it seemed like we could maybe get  
ratcheted into a lot of things that weren't necessary in the  
radiological status of the facility. And I'll just give a couple of  
examples:

It seemed to want detailed description or characterization  
of systems, and even talked about the crack between the wall and the

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1 floor for ALARA purposes. You know, if you have a 50-R high-end  
2 exchanger in a room, it just doesn't make sense to go and do a detailed  
3 characterization on that, on the floor.

4 And also for systems, if we're just going to take them out,  
5 maybe we don't need that detailed characterization on it; we just need a  
6 characterization good enough for shipping purposes.

7 ORLANDO: I agree. One of the things that I found in  
8 dealing with some licensees is, you know, contamination does get down in  
9 the cracks. And sometimes what you want to do is not dig that out until  
10 later on in the process.

11 DARMAN: Right.

12 ORLANDO: And one of the things that has occurred, or could  
13 occur, is if, especially in a higher radiation area, if you've got a  
14 spill, a legacy that's in the crack, if you go in there and start trying  
15 to dig it out, all of a sudden, you could end up with a significantly  
16 larger amount of radioactive material than you originally thought about.

17 Normally, that could be taken care of by, you know,  
18 appropriate health and safety issues and whatnot, and reaction  
19 procedures from your technical staff.

20 But one of the things that we need to be able to do is, if  
21 you want to start taking things down with materials potentially still in  
22 place, you know, sort of decommission-as-you-go, or  
23 dismantle-as-you-decommission, that kind of information is important.

24 But again, it needs to be tailored to the site. And if  
25 you've got a room that's got a ridiculously -- I won't say ridiculously  
-- but if you've got a high exposure rate, well, if you're going to take  
the whole set of systems out, that's fine, and you can just say it's  
being disposed of as rad waste.

DARMAN: I think it was maybe in section 14 that it actually  
had a note that all the information doesn't necessarily need to be

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1 available, won't be available up front, and it made that allowance to  
2 find that information out later.

3 ORLANDO: And in a lot of case, as you know, with the  
4 MARSSIM process, you are developing some of your final survey stuff as  
5 you go. And we've tried to make an allowance for that in Section 14 for  
6 not knowing how many samples you're going to be taking, or to give you  
7 at least a strategy for doing that.

8 KILLAR: Felix Killar, Nuclear Energy Institute. One of the  
9 concerns we have in looking at this section is that a lot of the  
10 buildings and what have you, we're going to tear down and go off to a  
11 low-level waste disposal facility.

12 And we're providing you a lot of detailed information, doing  
13 a lot of detailed characterization of that building, just to tear it  
14 down and move it off to a low-level waste facility, doesn't make a whole  
15 lot of sense to us.

16 And it doesn't appear that it gives us a lot of flexibility  
17 here in dealing with the reviewer to indicate that. All we need to do  
18 is make sure that our workers are safe while we're tearing this building  
19 down. We have minimal impact offsite and things along that line.

20 This Section doesn't give us a whole lot of flexibility, we  
21 don't think, and it doesn't appear to be moving in the direction as a  
22 risk-informed as you've indicated.

23 ORLANDO: If you had to turn in all the information there  
24 and you were going to tear down your building, I'd agree with you.

25 The idea here is that this is supposed to also take care of  
those buildings that are going to be cleaned up and left standing. If  
you're decommissioning alternative is to remove most of the material to  
a low-level radioactive waste disposal site, that would be discussed up  
front in the development of your decommissioning plan when you're  
talking to the staff.

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1           And you wouldn't necessarily have to turn in all that kind  
2 of information, just enough so that the staff could determine or make a  
3 reasonable assessment that whatever health and safety and environmental  
4 and contamination control procedures you have in place are adequate.

5           So, if you know a room is real hot and you're going to put a  
6 HEPA tent over it and go in and scabble it, or just dismantle it and  
7 send it off essentially in cans, we probably don't need to know that  
8 information, just what type of radionuclide was in there would be  
9 sufficient.

10          But again, the idea of coming in early on and saying, you  
11 know, here's what we're going to do, what do you think? You don't have  
12 to give me that one, you don't have to give me that information for that  
13 room.

14          But, no, I agree with you.

15          NARDI: Joseph Nardi, Westinghouse. I'd like to reemphasize  
16 also, the concept that you can't always get all of the status up front.  
17 We have two facilities -- two operations which have essentially  
18 water-filled pools that are contaminated.

19          And one of the questions we had received from the NRC was,  
20 well, is there any groundwater impact adjacent to those facilities?

21          I didn't want to do any of the groundwater characterization  
22 until we emptied those pools and cleaned them. To try to get into an  
23 operating facility and do probing down in, core-boring, and water  
24 sampling and everything else, while we were still not in an operational  
25 state, but in a contaminated state, just doesn't make sense.

26          So it could be in many situations that we would want to say  
27 that we'll tell you later, what the radiological status of that aspect  
28 is. We don't have it now; we're going to have to go into  
29 decommissioning and clean up before we can get to that.

30          Another facility we had related to trying to do some surveys

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1 with the high background, because a lot of the equipment was in there.

2 It was, you know, pretty much impossible to try to say  
3 what's the radiological status of the floors, walls, ceilings when you  
4 have a lot of equipment in there that just masks everything.

5 We had to do the initial decommissioning step of emptying  
6 the building of all facilities before we could even approach trying to  
7 really know what the walls, floors, and ceilings were.

8 ORLANDO: Did you do it in like a phased approach?

9 NARDI: Yes.

10 ORLANDO: Here's what we're going to get out?

11 NARDI: Yes. And that just has to be recognized when we  
12 talk about radiological status. We might not be able to give it to you  
13 all up front.

14 ORLANDO: Right. That's a good point. We have several  
15 facilities, I think, that are going to be in that boat where they are  
16 going to want to remove a lot of things before they get -- especially if  
17 they're going to be going for unrestricted use of a building, you know,  
18 because it's a capital -- biggest piece of capital equipment you've got  
19 -- and just move the equipment offsite, and some of your other systems.  
20 That seems reasonable, so that's a good comment.

21 Dave?

22 ALLARD: Dave Allard, PA DEP. One thing your staff may want  
23 to look at in reviewing facility radiological conditions is the chemical  
24 nature of the material also. We ran into a surprise.

25 We actually ran into a surprise. We actually have an SDMP  
site that we own, that the Commonwealth owns, and ran into a situation  
in a hot cell facility where some Strontium 90 was in a very dispersable  
form, and ended up contaminating some individuals with some minor  
& contamination.

But it was a bit of a surprise in the review process,

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1 looking at the chemical processes that were involved.

2 ORLANDO: Okay.

3 GOLDIN: Eric Goldin, Southern California Edison. One  
4 option you might want to consider is to be able to use operational  
5 surveys to determine a reasonable estimate of what the existing  
6 contamination and radiation levels are, rather than having to go out and  
7 do new surveys of each room.

8 ORLANDO: Okay.

9 DUVALL: Ken Duvall. I just want to point out that in this  
10 particular module where you're collecting data, this is a perfect  
11 opportunity to employ in the language of the SRP, the data quality  
12 objectives process.

13 I mean, here you have a number of purposes that you're  
14 collecting data for, and to identify those purposes and to identify the  
15 objectives that you're trying to meet with these specific survey --  
16 specific data, it allows you to tailor, specifically, how good the data,  
17 what quantity, quality, and how good the data that you're going to be  
18 trying to obtain for it to meet specific objectives, I think is very  
19 important when you're collecting data, that you have a target.

20 And here, clearly, in this particular module, you have data  
21 being collected for a number of different purposes, and I think taking a  
22 data quality objectives approach would allow you to tailor specifically  
23 what the data needs are.

24 ORLANDO: One of the things that I tried to do in this  
25 particular module was not get into the MARSSIM too much because that's,  
as Ken said, where we get into our data quality objectives and  
everything. This was principally to give the reviewer an idea of what's  
out there, what's messed up, and about what level. What are we dealing  
with?

However, I think that your comment is valid, and there might

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1 be some utility in putting some of that information up here.

2 DUVALL: This is not particularly a MARSSIM issue. This is  
3 a data collection issue.

4 There are MARSSIM objectives, just as though there are  
5 objectives for sending out for waste characterization and such. There  
6 are a number of needs for data in addition to MARSSIM, that the data  
7 quality objectives were very useful to be applied there. I think that's  
8 the important way to collect data to employ the data quality objectives  
9 process so that you can target the data to sort of the right type, right  
10 kind, right number of data.

11 SEXTON: Dick Sexton, Connecticut Yankee. I kind of had the  
12 same comment when I read this section, Section 14, which talks about  
13 site characterization. I guess my comment might be, as looking at  
14 putting those ideas together.

15 When I read the radiological section -- when I got to 14, I  
16 said, well --

17 ORLANDO: What's the difference?

18 SEXTON: Well, yes. I mean, it's the same radiological  
19 survey, and actually in the Section 14, I think you're getting closer to  
20 identifying the data quality objectives in that section.

21 ORLANDO: Yes, 14 was drawn pretty much from a MARSSIM  
22 approach. And, again, the idea in 4 was more of a review of what,  
23 exactly, the status of the facility is.

24 [Alarm sounds.]

25 ORLANDO: That's a door alarm that you hear.

I think somebody may have come in from the garage. The door  
that's over on the side there. The guard will come over and turn it off  
in a minute. I hope. If it's not, I hope everybody has their coat.

So, yes, I think that one of the things we can do is take a  
look and see if there's -- I don't think we need to see the information

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1 too many times in too many different places. Once is enough.

2 Perhaps if that can be merged, that might be a good way --  
3 two good ones to go together.

4  
5 I had written it that way for, again, a wide scope of  
6 licensees. Some licensees may not be doing necessarily a MARSSIM type  
7 approach, but the detailed MARSSIM type approach. they may be just  
8 coming in with something a little less intense than that.

9 But I hear your comment.

10 SEXTON: I guess the reactor community, what I've seen from  
11 a scoping survey, is a combination of operational surveys, and then some  
12 augmentation of data, but it looked to me that this section was really  
13 kind of talking operational type radiological surveys that -- a  
14 facility.

15 And then you go to Section 14 that is talking about site  
16 characterization. In fact, what -- at least from the reactor side, it's  
17 -- the documents that are typically put together, combine the historical  
18 site assessment along with the site characterization -- document.

19 ORLANDO: Yes. Now, there may be some utility in -- it  
20 looks like it went back out. There may be some utility in having some  
21 language in there that will allow you to merge 14 and 4.

22 Again, this isn't saying you have to have every one of these  
23 modules exactly the same way. But if the information is there, this is  
24 how we take a look at it.

25 Anybody else on Module No. 4?

ZINKE: I think it's the same thing, but just as an example,  
you know, one of the information requirements is the maximum and average  
radiation levels in each room. For Part 50, you know, the guidance also  
says this would be not to exceed three pages. We couldn't get that  
amount of data just for that one thing, in three pages.

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1                   ORLANDO: Okay.

2                   ZINKE: So, I'm not sure if this is, again, one of those  
3 things that would say, well, for Part 50 plants, you don't need to send  
4 this, or it's hard to tell whether there is some middle information that  
5 maybe we don't need to do this, but you still want something.

6                   ORLANDO: Okay. Anybody else on No. 4?

7                   [No response.]

8                   ORLANDO: This is where we had scheduled a break, at least  
9 in the modules. It's not where we decided or where I had expected us to  
10 be at this time. Since I suspect that -- let me ask you a question:  
11 Are there a lot of things you want to talk about on Modules 5 and 6,  
12 which are dose modeling and ALARA -- alternatives, I'm sorry; excuse me.

13                   Is that an area where we think we may spend a fair amount of  
14 time? Okay, I'll tell you what then, let's take a break now for about  
15 15 minutes.

16                   I'll go find the guy to turn off the door, and then when we  
17 get back, we'll go straight on through to lunchtime.

18                   [Recess.]

19                   ORLANDO: Okay, if everybody is ready, just a couple of  
20 things that we sort of talked about a little bit over the break: I want  
21 to apologize to anybody who gave me a comment that I may have just  
22 shaken my head or said yes to or something like that. Please understand  
23 that I probably don't have a response.

24                   But we will take the comment, and in many cases, I think the  
25 comment was valid without any type of response back from me. So if I  
didn't respond to you, please understand that it's not that I'm not  
listening. In fact, I'm paying somebody to write all this down so I can  
think about what you're saying, as opposed to having to take notes,  
which, for those of you that know me, you realize I can't do both at the  
same time.

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1 Larry Pittiglio asked me to make an announcement at my  
2 convenience, and now is the that time: The Commission paper, use of  
3 rubble-ized concrete dismantlement to address 10 CFR Part 20 Subpart E  
4 should be publicly available the first part of March. Check the NRC web  
5 page at that time. That would be SECY 00-0041.

6 One other comment, I think, to John: The concern about the  
7 specificity in the suggested format as to the number of pages.  
8 Understand that that's in there as a suggestion to give folks who may  
9 need the guidance, some idea of the level of detail we're looking for.

10 Again, this is very, at this point, going to be very  
11 inclusive, and so I've got to think about licensees who don't have the  
12 faintest idea what to send in, and may want some guidance on that.

13 Clearly, there are going to be licensees who look at that  
14 and say, you know, 80-100 pages, minimum here. Maybe we need to talk to  
15 NRC and come up with a better way to get that information to them.

16 So that you had a very valid point, and I just wanted to  
17 finalize that one or go over that one.

18 It looks like -- is Bobby back there? No. We may want to  
19 -- do you want to -- okay, Chris, to my right, is Chris McKenney. Chris  
20 has been one of the principal authors and principal members of the Dose  
21 Modeling Work Group, the folks that are putting together the dose  
22 modeling section.

23 Most of you know Chris from some of our earlier workshops.  
24 He is the author of the modules on dose modeling.

25 There are two more modules that will be posted on the Web  
very shortly, Module 5.3 and 5.4, and the answer to the question that's  
probably in everybody's mind is, yes, we'll take comments on that for  
awhile, so you don't have those in by the end of February.

The dose modeling folks are going to be focusing on the  
technical basis document, which is the actual detailed document that

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1 takes you through dose modeling. So be looking for Modules 5.3 and 5.4.

2 Having said that, we'll go ahead and start with the comments  
3 or questions on dose modeling, and for the most part, I think I'll be  
4 just looking at Chris every time he throws something at me, because he's  
5 the principal author.

6 So, if you want to start, go ahead with any comments on dose  
7 modelling. Which set of comments do we want to address first? Go  
8 ahead. Ken, why don't you start out?

9 DUVAL: Ken Duvall. I'm interested in how 15.49 is being  
10 applied. There is what is called a D&D decision framework within 15.49,  
11 and 15.49 discusses the process in which you do your modelling, you do  
12 your screening, and then if that doesn't meet the criteria, you go off  
13 to site-specific evaluation and then come back, and there's a diagram of  
14 that.

15 It appears that this diagram represents more of what the D&D  
16 framework itself is, which includes the dose assessment, the ALARA, the  
17 MARSSIM, the remediation process. There are all these steps that are a  
18 part of the D&D process, and, in fact, it's aligned somewhat, it should  
19 be, with the reactor decommissioning process.

20 And there's a whole process that's in place here, that is  
21 not evident when you have 16 discrete modules. And so my question is,  
22 it would appear that one would want to pull this D&D decision framework  
23 out of 15.49, which appears to be not one of the critical documents  
24 within this package, and to pull that decision framework out and put it  
25 into some kind of overview module that would describe the process so  
that everyone could see what the steps are, how the modules are  
integrated together.

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26 MCKENNEY: This is McKenney. The one I did put the decision  
framework into Chapter 5, but the decision framework was actually  
written the way it was to show that it was mainly for the licensees, and



1 it was to show that even if you didn't pass -- if you didn't pass  
2 screening on your first attempt, that didn't mean you had to  
3 automatically clean up your site, or that didn't mean you had to spend a  
4 lot of money to do site-specific modelling.

5 You had choices to do, and you had to weigh the benefits in  
6 going around to decide. We may be able to pull in most of those  
7 aspects, and with having pulling in 4006, I'll take that into  
8 consideration, to try to do that, and to at least for the dose modelling  
9 part of the discussion, and to Chapter 5's introduction, but we will  
10 consider the overview also of the entire process.

11 DUVALL: Okay, so you're saying that this diagram describing  
12 the modelling process is actually also the diagram describing the entire  
13 D&D process?

14 MCKENNEY: In a symbolic sort of way, yes, you know, it's  
15 saying you need screening right away, and then from a dose -- from a  
16 radiological risk standpoint, there is nothing much more you have to do  
17 for that, except do all the surveys and everything else.

18 But if you don't meet the first criteria you use, then  
19 you're going to have to do something. You're going to have to either  
20 look at site-specific models or do some cleanup, or do some other  
21 things, take more data.

22 DUVALL: In this framework, I don't see where MARSSIM is  
23 placed in here.

24 MCKENNEY: This is creating DCGLs.

25 DUVALL: This is the question that I had, was, is this a  
description of the dose assessment process, or is it a description of  
the D&D process itself?

MCKENNEY: It's more the dose -- the dose to set up the  
DCGLs. But if your site doesn't meet the DCGLs, that doesn't mean you  
have to do dose modelling, because the end result of the framework is

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1 for you to come up with DCGLs that you're going to be able to use at  
2 your site, and meet to finish your decommissioning.

3 DUVALL: I guess my comment is that I would suggest that  
4 there be in place, a D&D framework to integrate all the modules, or  
5 integrate all the steps, and that it include MARSSIM, and that it does  
6 not indicate or appear that the ALARA process is placed after you've  
7 actually met the criteria.

8 I think the ALARA, certainly prior to meeting --  
9 demonstrating that you've met the least criteria. And, in fact, if the  
10 ALARA, the dose assessment, and the MARSSIM, I believe, have a  
11 relationship in that they can be optimized, that they should be  
12 indicated in the overall process so that the optimization can be  
13 intentionally applied.

14 ORLANDO: Okay, well, thanks for that comment. Paul, did  
15 you want to start off?

16 THE WITNESS:

17 GENOA: Paul Genoa, NEI. What I'd like to do is, I'm going  
18 to read through some bullets to make sure we capture them. But they are  
19 necessarily brief, and if I don't recall exactly what it is, I'll ask  
20 someone to chime in who helped make these. There are a couple of  
21 comments.

22 One of the issues has to do with an indication that the  
23 screening values cannot be used under certain conditions. And there are  
24 probably a range of those conditions.

25 I can recall one specific that comes to mind. It has to do  
with the use of soil screening values for subsurface contamination, and  
that that wasn't part of the design of how those screening values were  
built.

In the recent supplemental information that we commented on,  
and you guys are probably chewing on and digesting now, we asked you to

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1 consider that for some definitive finite zone of subsurface  
2 contamination, some small lens of contamination, subsurface, that if it  
3 met those levels clearly, you shouldn't have to model it a whole lot  
4 more than that.

5 But we could understand that there are situations,  
6 subsurface, large volumes, contaminated, even meeting those levels may  
7 not meet your objective. So we're not asking you to compromise the  
8 assumptions, but to recognize that there may be -- you may be able to  
9 use the tool in other ways.

10 And one way I envision is some small subsurface zone of  
11 contaminated soil that is below the screening values, that you wouldn't  
12 have to go a whole lot further. So if you would look at some of those  
13 issues --

14 ORLANDO: You're saying to include that type of discussion  
15 in here?

16 MCKENNEY: Actually, what Paul is discussing is actually  
17 already to some degree in our technical basis document of how to provide  
18 the justification to be able to use the models in a different situation  
19 than they were originally intended to, and how you'd have to provide  
20 justification to do that.

21 And the wording in 5.0 and 5.1 is going to -- on a list of  
22 things that these are areas you can't use screening, is going to be more  
23 of that without justification, you can't use these for screening values.

24 GENOA: Excellent.

25 MCKENNEY: So, that was, in truth, the intention, because in  
some situations, we've been able to use the D&D screen and situations.  
It wasn't truly modeled when we sat back and look to make sure that the  
assumptions were actually being compromised.

Now, that would obviously have to be a site-specific case  
for us to look at it and say, yes, in this case it's still okay to use

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1 it.

2 GENOA: Again, anyone chime in if I don't quite characterize  
3 that right. There was a notice that there was no reference to RES/RAD  
4 build. There was reference to other RES/RAD, and I guess related to  
5 that, there were some references associated with which versions of which  
6 code.

7 We had some concerns about that, the idea that you're doing  
8 this work several years before decommissioning, and maybe you're  
9 developing the plan even before the act of -- before you are fully ready  
10 to submit, for instance, a reactor license termination plan; that there  
11 is going to be a period of time, a year or maybe more.

12 We certainly wouldn't want to have to go back and redo the  
13 work, if a new version came out. We would hope that you would have  
14 language in there that said that unless the agency found that the  
15 previous version of the code was flawed in a way that could be a risk to  
16 public health and safety, that you wouldn't have to go back and revise  
17 the code you're using.

18 ORLANDO: You'd just find out in the dose model.

19 McKENNEY: Actually, that was actually the intention of why  
20 I said to put in the version. I didn't want people to sit there and go,  
21 well, I ran the next version and I got a slightly different number, so  
22 your whole thing is flawed.

23 If we know what version you ran, then we can make a better  
24 decision of whether there really is a difference or not, rather than,  
25 and especially when it's three or four years down the road when you've  
set up your DCGLs years ago, and now you're at decommissioning, and  
that's the -- your final survey. That's the last thing you want to do,  
is have to argue the differences in models.

GENOA: So we recognize that you need to --

McKENNEY: Retain the ability to say, hey, look, you know,

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1 we revised it because there was a fatal flaw in the previous code, and  
2 no one is going to be allowed to use that anymore. We understand that,  
3 but barring something like that, we'll document the version and that  
4 will be good.

5 There was a reference to an appendix, but it wasn't  
6 available.

7 GENOA: That's the technical basis document, and we'll --

8 ORLANDO: And we will get an opportunity to review and  
9 comment on that, but it will be later on in the Spring.

10 GENOA: On the screening values for the building occupancy,  
11 we recognize -- I think that first of all you should know that I don't  
12 think the tables came out when we downloaded things, so we don't --

13 McKENNEY: In the WordPerfect version it does, but it may  
14 have been a conversion. When I download it, it does.

15 GENOA: We all deal with these things.

16 McKENNEY: In the final version, it will go into an PDF  
17 format, which will the -- it should, and we'll test it on different  
18 versions.

19 ORLANDO: Were you able to get the tables?

20 GENOA: No, but that's okay. We knew what they were.

21 ORLANDO: Did you know what they were? Were you able to  
22 eventually see the numbers?

23 GOODMAN: Lynn Goodman, no.

24 GENOA: When I said we knew what they were, it was because  
25 they were previously published in the Federal Register, but, no, we  
could not look at the tables.

ORLANDO: That was my point; that is if you don't know what  
they are, the surface soil and surface numbers are in the Federal  
Register.

McKENNEY: There is a reference to the Federal Register in

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1 there before the table.

2 ORLANDO: And I can give you those references again if you  
3 need them.

4 GENOA: No, that's fine. But what we did notice is that the  
5 transuranic isotopes have not yet been added to the table.

6 ORLANDO: Right.

7 GENOA: We recognize that there were some issues there with  
8 resuspension and conservative assumptions. We encourage you to keep  
9 working on those. That's pretty much it.

10 MCKENNEY: The table that was put in there for building  
11 surfaces was exactly what was put in the Federal Register Notice.  
12 Because of the work still in the -- and also the draft has been up since  
13 early -- since basically late September, so there is obviously a lot of  
14 things that have happened since then even, like the soil surface ones  
15 weren't in there because they weren't out yet.

16 So, we'll look at both the problem with the computer code  
17 and the graphics and making sure that it -- in the smallest thing, that  
18 there is a double reference, not only the table, but there will be a  
19 separate reference to the text, in case for some reason you can't get  
20 the graphics.

21 ORLANDO: Bobby Eid -- in setting up the workshop, I had  
22 been talking to some folks, and they wanted to have perhaps an update or  
23 just some information on where we were the RF, resuspension factor, so I  
24 asked Bobby Eid to be able to answer that, and it seems now is a pretty  
25 good time since we were talking about the RF, the resuspension factor.

EID: Yes, the RF status, now we are developing a NUREG. It  
is in a draft form. And we are trying to address the RF.

We tried to use the licensees' data, two licensees' data  
that were included and in establishing the RA value. The RA value, it  
is at least restrictive as it was before, because our PS values were

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1 based on some kind of experimental conditions that they are not  
2 consistent with the decommissioning sites.

3 And the 10-percent with loss contamination was assumed,  
4 which also the basis for that is not really clear. We tried to  
5 establish a better technical basis for the RF, based on additional data,  
6 and based on analysis or literature values.

7 We developed, as I said, the draft NUREG. It is being now  
8 reviewed. We have internal peer review for the first phase.

9 After we go through the process of the internal peer review,  
10 then we will put it on the website for expanded peer review and for  
11 comments from the public.

12 The schedule for it depends on when we will complete the  
13 internal peer review for the RF. If we are done and we get the  
14 permission to go ahead for the expanded peer review, then we'll go ahead  
15 and put it on the Web.

16 If everything goes well, of course, you will find this  
17 hopefully in June, and then we'll make conclusion, whether we will be  
18 able derive a screening value for all parameters or not.

19 For your information, the values that they are proposing in  
20 the NUREG, I cannot quote them exactly, but they are less restrictive  
21 and could be by on order of magnitude or more than the current values in  
22 the D&D.

23 That's the best I can tell about the status of the RF.  
24 Again, if you have any additional data in there, good data on the  
25 facilities, again, I renew my request to please provide us with this  
data, and still we could accommodate this data if it is good quality  
data for this.

Also, we encourage the users, those they have provided the  
data, to go ahead and publish it, and this will make our task much  
easier to refer to the data as data presented in the workshops or given

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1 to NRC staff, or through the decommissioning process.

2 So if you could publish this data, we would encourage that  
3 and will make our job easier to refer to the data given to us.

4 ORLANDO: Thanks, Bobby.

5 GENOA: Paul Genoa, NEI. This is a general comment, but it  
6 fits into this section. And obviously I want to commend the staff and  
7 the NRC for looking into and reevaluating old data to factor into these  
8 discussions.

9 I think the resuspension factor is a good example. But I  
10 want to caution us to keep the big picture.

11 What we're doing is, we're dealing with these second and  
12 third order impacts, such as, you know, how much walking over floors is  
13 going to scuff the floor and kick up contamination.

14 I understand we're trying to deal with uncertainty and  
15 quantify it. But we need to look at the first order effects. The  
16 assumptions in the beginning is that someone is going to re-habit a  
17 building that is a decommissioned facility, and there is no  
18 probabilistic assessment of how likely is it that they're not going to  
19 paint the walls, put new flooring down, put a dropped ceiling in it,  
20 which is going to completely eliminate that pathway.

21 And so it's nice to work down in the third order effects,  
22 but it would be nice to also be able to address up front, some of those  
23 concerns which will completely eliminate those second and third order  
24 issues.

25 EID: I agree with Paul. I think those are issues we're  
struggling with. Unfortunately for generic cleaning analysis, we cannot  
make certain assumptions. We have a scenario which is the building  
occupancy scenario, and in that scenario, you assume light industry.

So that's what we are trying to approximate, the situation.  
But if there are site-specific conditions that indicate that the RF will

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1 be less, of course, it could be accounted for when you conduct the  
2 site-specific analysis.

3 LITTLEFIELD: Pete Littlefield, Duke Engineering, Yankee  
4 Rowe. The other medium that you seem to have ruled out the use of  
5 screening factors on was surface water sediment.

6 I guess I would ask, the same as Paul has, if this -- if you  
7 have considered whether there is anything inherently non-conservative  
8 with using those surface screening values for sediment.

9 And maybe you could address something on that.

10 MCKENNEY: Right. The main thing is the initial conceptual  
11 model, unless, of course, it was soil that leaps through an unsaturated  
12 zone and the into the groundwater. And then it was put back as  
13 irrigation.

14 If it's sediments, then there are a lot of issues of, well,  
15 that would contribute direction to the concentration in the water,  
16 possibly, or to the plant material there that the fish would eat, and  
17 the primary pathway changes quite a bit, too.

18 It would have to be looked at a bit. We haven't really  
19 explored too much of how far off or how inappropriate it would be to use  
20 that situation, but it was more of that is a situation that is quite  
21 different from a conceptual standpoint.

22 For certain primary transport mode mechanism, then the --  
23 what is in D&D right now. It's actually significantly different than  
24 just being buried a little bit more than the 15 cm.

25 There is significant difference, too, so -- but again, that  
-- if further looking at stuff like that, the new thing is going to be  
changed to say without justification, so that if you can justify why it  
would be able to be used in that situation, then we --

LITTLEFIELD: Then, again, the words, as they are worded  
now, seem to imply that you couldn't use screening values anywhere on

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1 your site if you had sediment that was contaminated.

2 MCKENNEY: Right, right. I'll look at to makes sure that  
3 that is not as harsh, cut and dried issue.

4 ROBERTS: Rick Roberts, with Rocky Mountain Remediation  
5 Services. One of then things you've looked at here, and in D&D, is  
6 really looking at a screening level where you really max-out everything,  
7 where you say, okay, you know, we're going to the 99th percentile of  
8 everything and if you did this, then these are your screening level  
9 numbers.

10 And one thing you have in here is your average member of  
11 your critical group where you can justify using other parameters than  
12 were used in D&D. And you may be doing this in your technical document,  
13 but I would recommend that you not leave that as open to interpretation  
14 as people can just put in any number and try and justify it.

15 You give some precise criteria on what someone could be in  
16 that average member of the critical group, and going as far as having  
17 some values in there that would be acceptable for that average member as  
18 well.

19 Things like in building scenarios, you're going to start  
20 looking at them and you have that renovation work and you have the  
21 office worker in there. But also in the environment, going even further  
22 than just the residential scenario and recommending values there, there  
23 are other scenarios.

24 There are industrial use scenarios that may be applicable as  
25 well. And you may be doing this in your technical document that's  
coming out by just -- would recommend that you be a little more precise.

Even when you go back to the ICRP documents on the average  
member of the critical group, it really doesn't help you at all.

MCKENNEY: It's not designed very much -- remember, the ICRP  
documents are designed for current populations that you can actually go

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1 out and find these people. And it's not for a future-based analysis.

2 Was the initial use of the critical group -- there are  
3 documents underway on actually how to derive a critical group for the  
4 future based on current populations, being done for -- by a subgroup of  
5 the IAEA, International Atomic Energy Agency, which I'm part of, on the  
6 -- it's call Biomass.

7 And it has a document. There is a limited release version  
8 of a document on how to select critical groups for future populations,  
9 and that will be attached and put on the website when we put up the  
10 technical basis document on critical groups.

11 So that reference will be there which describes how to do it  
12 in general form. For giving out specific values for different people,  
13 that can end up to be a long process.

14 In the screening values, we didn't even use the 90th  
15 percentile for the people; we used the mean values or of our parameter  
16 ranges for the people's habits.

17 For anything that we considered to be behavioral or  
18 metabolic process, like breathing rate, and food intake, they were based  
19 on the mean values of the range that was developed for the code, rather  
20 than some X-percentage along the lines of what is suggested in ICRP-46  
21 and other ones that you take the mean value of the group's activities.

22 ROBERTS: I guess I would ask if you don't give a number,  
23 that you could recommend at least like you were saying, say that it  
24 would be acceptable to use the 50th percentile or the 90th percentile  
25 for this, for distribution in order to do the dose analysis. That would  
even help out a lot.

McKENNEY: Right, the IAEA document I talked about goes into  
quite a bit of detail of how where you might want to take an initial cut  
if you had just national data on something, or if you had Regional data  
on something, or stuff, so that you can tailor -- because, of course, if

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1 I have national data on just the habits of people on how many hours a  
2 night they sleep, for example, well, not all of those are members of a  
3 critical group.

4 The critical group is a much smaller subset of people who do  
5 some activity a great deal. So you may take a higher percentage from  
6 the national data.

7 But if you had actual data of that critical group like  
8 industrial workers, that situation, then you may be taking the mean of  
9 that activity, that they worked so many hours.

10 So that sort of stuff will be in the technical basis  
11 document, and the supporting document that I'm referencing.

12 ROBERTS: All right, thank you.

13 GENOA: Paul Genoa, NEI. That last conversation brought up  
14 another issue, and maybe this is the right time to discuss it.

15 And this has to do with sort of guidance on parameter  
16 selection. If you were looking at the KD values, which I think was  
17 discussed, and you go on your site and you put 100 borings or whatever  
18 and you come up with, you know, three or four values at each one of  
19 those.

20 How would you like to see us document the decision process  
21 that selects what is the number you put in the code, based on that kind  
22 of data?

23 MCKENNEY: That is actually the chapter before that, right  
24 on selecting parameters or changing parameters. There is also already  
25 some discussion in 1549 on something on selecting site-specific  
analyses. It's like Appendix C or something of the document. It goes  
through the various variables and says if you have this sort of data you  
may want to take this percentage from your range or if you are going to  
modify this parameter, then you may want to look at these parameters  
also.

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1 That will be covered in the --

2 KONIG: John Konig, ABB. The 15 centimeter criterion gives  
3 me some concerns from the point of view that some sites will generally  
4 not be contaminated below 15 centimeters, but those sites may also have  
5 pipelines. They may have burials. I am concerned with how the reviewer  
6 will interpret the 15 centimeters.

7 You also may have situations where it is 20 centimeters or  
8 30 centimeters and that criterion triggers a lot of things. It triggers  
9 site specific and it triggers other requirements to be carried out,  
10 especially geological, geomethodological studies to be done when maybe  
11 they are really not necessary, or only minor efforts are necessary in  
12 that area, but I think I would be concerned with how it would be  
13 interpreted by the reviewer five years down the road who is reading this  
14 for the first time, like Dave Culberson has noted earlier.

15 I think I would like to see in the SRP something that  
16 addresses that type of issue where you shouldn't go by 15 centimeters  
17 specifically. You've got to look at the situation at the site.

18 MCKENNEY: That was the discussion I had earlier about  
19 saying that I was going to add that it does not just absolutely keep you  
20 from using that model and that screening value, that you with  
21 justification and showing that it is still viable for your situation you  
22 can use it, but piping is actually a completely different thing for the  
23 conceptual model but like if it's 20 centimeters in a generic form you  
24 probably don't have a problem with it, but that is -- there will be ways  
25 not to have to do a great deal of work to provide a justification of  
what it is still viable and not actually kick off all these intensive  
processes and procedures.

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KONIG: I think a corollary to the comment is some sites  
will very likely be undergoing EPA actions, voluntary corrective  
actions, that sort of thing, and in many cases those actions will drive

1 some fairly significant geological or climatology studies to be done.

2 MCKENNEY: Right.

3 KONIG: And I would hope and expect that anything approved  
4 by another legitimate agency would not require a great deal of review by  
5 the NRC, especially in circumstances where you think you are limited to  
6 surface and maybe pipeline contamination, that sort of thing.

7 I would like to see reports that have been done on the  
8 geological structures of a site, for example. It would be pretty much  
9 accepted as is and not require a lot of review.

10 MCKENNEY: That would be our hope too.

11 KONIG: Good, thanks.

12 GOODMAN: Lynn Goodman. I have got one very detailed  
13 comment. I will put it that way -- a specific comment. That's where  
14 two places in the review plan it talks about that if the total dose is  
15 greater than 10 percent of the respective limit, removable fraction  
16 needs to be 10 percent or less at the time of decommissioning. I think  
17 that should be at the completion of decommissioning because I think that  
18 is really what is important about modeling and what is left, not is what  
19 is there when you start your decommissioning.

20 MCKENNEY: No. At completion meant that -- is it actually  
21 at the time of decommissioning or is it -- oh. Confusion on my own  
22 part.

23 What I really meant was -- it should actually say at the  
24 time of proposed license termination but you're right, that will have to  
25 be changed.

ORLANDO: John, did you have something you wanted to say?

[No response.]

ORLANDO: Anybody else have anything they want to talk about  
with respect to dose modeling?

[No response.]

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1           ORLANDO: Okay. I thought that that would last a little bit  
2 longer than that, but that is good. We will have a nice long lunch.

3           The next section in the Standard Review Plan is entitled  
4 "Alternatives Considered and Rationale for Chosen Alternative."

5           It is important to realize for this particular module that  
6 this only really applies to the sites that are going to be undergoing  
7 requests for license termination with restrictions in place or using the  
8 alternate criteria. We need this kind of information in order to  
9 develop environmental assessments or EISs depending upon the particular  
10 decommissioning option that is proposed by the Licensee.

11           If you are going to be going for unrestricted use, there is  
12 no real need to do any kind of detailed alternatives analysis, so having  
13 said that I will say does anybody have any thoughts about that module  
14 section, Module 6 alternatives analysis?

15           GENOA: Paul Genoa, NEI. I'll kick it off. I want to just  
16 sort of tee this one up and other people can weigh in, but there is  
17 language in there about selecting the environmental superior  
18 alternative, and that is a whole new word --

19           ORLANDO: Right.

20           GENOA: -- that I don't think is found in EIS space in other  
21 things and I think it even has some definitions of what that means and I  
22 think we had some concerns about how that was defined. I would ask you  
23 to take a look at it.

24           ORLANDO: Could you voice those concerns or are you not  
25 ready to do that?

          GENOA: No, no, if I can find it.

          ORLANDO: It's on page 3, down at the bottom -- my page 3,  
I'm sorry. It may be on your page 2, but it is under Section 6.1.

          GENOA: Yes, there is a footnote at the bottom as well.

          ORLANDO: Generally where that comes from, you see, is that

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1 we put together some -- and again this is a draft document, but we had  
2 put together some information on  
3 Environmental Impact Statements and the language that Paul is referring  
4 to says that the Staff typically looks to see the environmentally  
5 superior alternative chosen, and for this context, environmentally  
6 superior means it is the one that results in the lowest dose to the  
7 average member of the critical group or that could turn the site to as  
8 close as a pre-licensing stage as possible.

9 That is sort of the definition or the context we used it in  
10 in the document.

11 GENOA: I will give you a general flavor of the concern. It  
12 just hit a couple nerves and I guess in a way what -- carried to extreme  
13 what it could do is conflict with really the ALARA analysis. It could  
14 in fact say that -- well, clearly the environmentally superior  
15 alternative is the one that removes all radioactive material, all  
16 residual activity from the site, digs up the entire site and transports  
17 it to Utah, so I mean, you know, that would be an extreme situation and  
18 that would ignore the other societal risks associated with it.

19 Radiation is not the biggest risk from decommissioning, so  
20 we don't want to lose sight of that. Industrial risks and  
21 transportation risks and a lot of other things, fugitive dust and noise  
22 in the community and a whole lot of things are far more environmentally  
23 sensitive than the residual radioactivity some people would argue, so  
24 hinging the environmentally superior issue only on radiation is one  
25 element.

26 The second one has to do with returning the site as close as  
27 possible to its original state may or may not be the best choice for the  
28 stakeholders in the group. They may want the facility to remain an  
29 industrial site. They may want the buildings left up for one purpose or  
30 another and I just wanted to recognize those kind of flexibilities.

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1 ORLANDO: Henry?

2 MORTON: Henry Morton. I think in terms of the sites that  
3 are looking at restricted release and which the evaluation of  
4 alternatives is a leading issue, it would be helpful in the regulation  
5 mechanism if there was a way in which the Licensee and the agency could  
6 work through the alternatives to the chosen or preferred alternative  
7 that would help focus the remainder of the decommissioning plan so as to  
8 focus it and not to spread out the work too much after that point.

9 ORLANDO: So you are saying maybe an approach would be for a  
10 Licensee to do the alternatives analysis before they send in the  
11 decommissioning plan, then meet with the Staff and discuss that?

12 MORTON: It would be useful I think if there was a provision  
13 to do that in case the Licensee has a situation that is complex enough  
14 that he thinks it is warranted.

15 ORLANDO: I think that is a pretty good idea. In fact, that  
16 would be one of the things that I would hope would happen just as part  
17 of this idea of meeting with licensees and discussing things as the  
18 decommissioning plans are being developed.

19 I am not sure how the mechanism for getting, quote, approval  
20 of what your proposed alternative would be, because that tends to get  
21 wrapped up into NEPA so you are kind of in a situation where we can't  
22 approve your proposed alternative before we do the NEPA activities  
23 including developing an Environmental Impact Statement and we can't  
24 really do an Environmental Impact Statement until we get a  
25 decommissioning plan, so we are in a little bit of a bind, but that is  
one thing that I think we -- it would be good for us to come up with a  
way to accommodate that, because I think I see your point that you don't  
want to go off and spend an awful lot of money coming up with a  
decommissioning plan option that is not going to be -- that doesn't have  
a chance.

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1 KILLAR: Felix Killar, NEI. I actually have a question  
2 because my mind is getting foggy and I don't recall what the outcome of  
3 it was, but if we have an alternative site because we are going to a  
4 restrictive release I believe we have to have a Site Specific Advisory  
5 Board, is that correct?

6 ORLANDO: We get into that a little bit -- well, it is  
7 discussed in detail in the DG and it is discussed in detail in the  
8 statements of consideration.

9 The final rule did not require an SSAB or Site Specific  
10 Advisory Board. However, the guidance that is out there in DG and I  
11 believe the Commission's intention was that was probably a very good  
12 starting point.

13 The reason that it wasn't, my understanding is the reason it  
14 was not specifically included in the final rule was that it didn't  
15 acknowledge that existing groups may already be in place at a site that  
16 could perform the same function and when I say existing groups at a site  
17 I mean those that would include a broad cross-section of community  
18 interests and all the others, so to say specifically that you always  
19 have to have one I think is contrary to the rule, but I think that is  
20 one of the things that we would look at and expect to see.

21 If you don't have one, you know, why not, and then how did  
22 you go about getting all of the information that you are required to  
23 get.

24 I am not saying you are going to justify it every time why  
25 you didn't have one, but I think you need to have that starting point in  
your mind as to the SSAB is probably the best -- that small group  
dynamic is considered to be the best way to get the information, but if  
you don't have that what did you do to ensure that you got that  
information.

KILLAR: Well, that goes to my question then is I didn't see

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1 in six, and maybe I read through it too quickly, how the considerations  
2 and the SSAB interact.

3 ORLANDO: Well, the Site Specific Advisory Board or the  
4 public input information is discussed back in the institutional control  
5 part because that is where in the regulation under 1403 you start  
6 talking about what the public input activities, at least for the  
7 Licensee, what they have to do -- the gathering of information on the  
8 proposed institutional control and whether it will maintain doses as to  
9 25 millirem and whether the restrictions will be enforceable and on down  
10 the line. There's about three or four things that for lack of a better  
11 word I will say SSAB has to do for the Licensee, but I discuss that in  
12 Section 16.

13 KILLAR: 16? Okay. Along those lines though, back to the  
14 footnote we started talking about earlier, about the superior site, by  
15 having that footnote in there I think it actually takes away from some  
16 of the let's say review and expectations of the Site Specific Advisory  
17 Board because it then sets up an expectation that this is the way that  
18 has to go, and so then it takes away some of that flexibility t hat they  
19 have in providing other alternatives or discussing alternatives.

20 ORLANDO: Okay. I think perhaps the wording of that may be  
21 somewhat misleading and I will try and work on that.

22 I think the idea here was to try and make sure that we have  
23 a starting point that says, okay, what is the best that can be done, and  
24 then see exactly what is the proposed alternative and try and benchmark  
25 them against each other to see what we end up with.

NARDI: Joe Nardi, Westinghouse. One of the things that we  
are participating in is in the NRC's decommissioning pilot program. The  
thing that I have found in that, and we will be preparing a report to  
the NRC that tries to incorporate many of these comments that I am going  
to just summarize right now, but my biggest problem with this process is

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1 that we kind of assume that you are going to have a decommissioning plan  
2 that knows all upfront, and that you make all these decisions on  
3 alternatives and everything in the beginning, and what we found in the  
4 pilot program, and what I really strongly recommend is the flexibility  
5 to come in in phases with information.

6 We were able to start our work and do a lot of things to get  
7 us far enough along to make measurements that were realistic -- for  
8 example, like walls, ceilings, floors, everything -- pretty far into the  
9 process, after we had emptied the building and done a lot of initial  
10 cleanup, and then we could make the decisions necessary to consider  
11 which alternatives are appropriate.

12 If I had tried to make that in very beginning the  
13 decommissioning plan would have been so vague with so many alternatives  
14 to be meaningless. That is personal opinion.

15 It is far more appropriate I think to delay some of that  
16 decisionmaking until you have more specific information that isn't  
17 complicated by many other factors such as the high background that was  
18 associated with that facility due to the equipment that was in it. It  
19 was very simple to take out but if you followed the decommissioning plan  
20 process you can't necessarily just remove all that.

21 ORLANDO: I think the rule, and I know one of the folks from  
22 OGC is in the audience and perhaps if I am going to misspeak here they  
23 can correct me, but the rule outlines, the timeliness rule -- you know,  
24 cessation of operations, 60 days later you let NRC know, you know, with  
25 the next amount of time you will decommission your site with a year or  
with the two years you will send in the DP or whatever.

There is also the provision in there for an alternative  
schedule and at least in this person's mind, my mind, if a Licensee  
wants to take an approach like you have described where you do things in  
phases, and submit the information as it is developed and what-not, I

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1 think that is something that could be worked out sort of in that context  
2 of an alternative schedule.

3 Now clearly then you would have to establish that schedule,  
4 and I think that is where, you know, the Staff and the Licensee need to  
5 work together to say, okay, it doesn't make sense to do -- to give you a  
6 10-page document that tells you nothing when in six months we are going  
7 to have all of the information for this section, this section, and this  
8 section, but I think the rule already allows that, so perhaps we can put  
9 something -- how to use or something in the Standard Review Plan that  
10 acknowledges that that exists.

11 Jim, is there any concern with sort of fractionating the  
12 submission of material like that?

13 LIEBERMAN: I am Jim Lieberman, OGC. Maybe not in approving  
14 the decommissioning plan, but I am concerned how that is going to  
15 interact with NEPA, because when we make our decisions we have to  
16 consider the environment, and so we have to couple these things so there  
17 may be a little tension between the details you need for NEPA and the  
18 details you need for decommissioning, the timing, but I think it is a  
19 good issue that we need to think about.

20 NARDI: Joe Nardi. That's exactly my point. It is a very  
21 difficult situation when you are trying to do this in what I consider a  
22 logical fashion from a technical standpoint versus the administrative  
23 standpoint.

24 ORLANDO: I guess we are somewhat in a position of having to  
25 have the information sufficient to do the analysis and again, you know,  
to actually have the decommissioning plan in place, so that is a tough  
nut. I think that is one we are going to have to work on.

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NARDI: Joe Nardi again. My focus again is the Materials  
license side. If you look at the big licensees it becomes very obvious  
you have to do a lot of work. One of the other comments that I would

1 like to make is there is also the provision in the regulations that you  
2 may not need a decommissioning plan.

3 The guidance for that decision is very vague, trying to  
4 decide whether -- you know, if you are a radiography facility, it's real  
5 easy. If you are fuel fab plant, you know you are on the other side of  
6 the line. Many of my operations fall into that gray area where it is  
7 just not clear whether I do need to follow the regulations with respect  
8 to submitting and of getting approval of a decommissioning plan and when  
9 I don't.

10 Some additional guidance in that somehow would be very  
11 useful, I think, to a lot of licensees -- not the ones that have the big  
12 cost of decommissioning and not the ones that have the big cost of  
13 disposal, but the middle ground.

14 ORLANDO: Yes, that was one of the things we tried to tackle  
15 in the decommissioning handbook and it actually laid out which types of  
16 licensees, again based on what they had done during operational phase.

17 I still see that kind of -- and it is actually included as a  
18 table, a matrix in the NUREG -- I could see, I think that the same type  
19 of document, same type of matrix will be generated for the revised  
20 handbook, which will show exactly which types of Licensees based on what  
21 they are going to do to clean up or in some cases just terminate,  
22 request termination, whether they need to submit decommissioning plans  
23 and whether the Staff will or will not be going forward with the EAs and  
24 EISs, which is important for you guys in determining your schedule  
25 because if we have to do an EIS, that adds a significant amount of time  
to the process.

NARDI: You're right, and I lot of times -- I look at some  
of those matrixes, I have reviewed that kind of documents and I find it  
a little bit wanting for the real situation.

They are good when you are thinking about big picture, but

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1 when you are down to do I or don't I, I find it wanting sometimes. An  
2 example of this -- we got into the decommissioning of this facility  
3 under the pilot program and we assumed that the ground under the  
4 building was going to be contaminated, just for purposes of  
5 decommissioning cost estimate and others, but we had no real  
6 information.

7 I did not want to go through that building when we had the  
8 operations still going on, when we still had the equipment and core bore  
9 the building. We went on the basis of what we were going to do was not  
10 do a whole lot of characterization in core bore. We were going to clean  
11 the inside of the building, pick up the floor and see what was under  
12 there, and that was the approach we took, and under the pilot program we  
13 had the flexibility to do that, so it was very late in the game before I  
14 found out what was under that floor.

15 I would have loved to have known upfront, but it made a lot  
16 more sense to do it in the fashion we did it.

17 CULBERSON: Dave Culberson. Just a question that goes back  
18 to some earlier comments about the process for going into the  
19 decisionmaking and that was a comment that it is a good idea, and I  
20 think it is a good idea, for the Licensee and the NRC to meet early on  
21 in the process, make some of the decisions, and decide what would be in  
22 the decommissioning plan and with respect to the alternatives make those  
23 kind of decisions.

24 My question is who would you envision being involved in that  
25 decisionmaking process from the NRC -- well, who -- I know the Licensee  
representative but is that -- who at the NRC, what level --

ORLANDO: What level of signoff, is that what you --

CULBERSON: Yes. What level of signoff, who is involved in  
that decision process -- is it technical people, is it Staff, is it  
management? Are there other interested parties included in that

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1 process?

2 What is today your anticipated --

3 ORLANDO: Well, I think clearly the people who would be  
4 involved would be technical staff, to go through and determine what kind  
5 of information is needed.

6 I think it may, depending upon which group in NRC you are  
7 working with, the level of signoff of the letter, if you will, may vary  
8 a little bit but as far as other interested parties, I would think that,  
9 you know, we would want to at least consider co-regulators, say states,  
10 to see what they have to say. Make sure, because don't forget one of  
11 the things that we have also heard is that we have been encouraged to  
12 make sure we take and not make somebody have to submit two documents, so  
13 if there is some way to bring in some information in an easy way that  
14 both regulators could sign off on, that would be good.

15 As far as the specific of how far up in the chain it goes, I  
16 would have to check that for you. It seems to me it might be at, say,  
17 maybe the branch level, but that is no commitment. That is just based  
18 on some of things that we have done.

19 CULBERSON: Would you anticipate just in the decommissioning  
20 branch or division or it depends on who is licensing, Research --

21 ORLANDO: It would depend on who is assuming responsibility  
22 within NRC for managing the decommissioning.

23 We have sort of a process where the sites will be switched  
24 over to either Headquarters or they'll go from one group in the region  
25 to the other for decommissioning and at that point that is where that  
decision would be made.

26 Usually those kinds of things or those types of letters, as  
27 you probably know, like I said are signed off at around the Branch Chief  
28 level, but there may be some, depending upon what the decommissioning  
29 alternatives are and everything and what you are going to do, we may

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1 have to float it up a little bit higher, but I hesitate to say exactly  
2 where in the process that is going to happen or where that signoff is  
3 going to occur, but that is a good question.

4 That is something I think we need to try to work on at my  
5 end. Don't identify any more holes in my process.

6 [Laughter.]

7 GENOA: Paul Genoa, NEI. Following up on that, would you  
8 envision after this meeting and the discussion of what the  
9 decommissioning is going to look like and what you think your  
10 information needs are that that would ultimately be documented in a  
11 written letter?

12 ORLANDO: The way I am envisioning it now, yes. Some kind  
13 of -- something that lays out what the expectations of the Staff are.  
14 It may be a meeting summary that says here is what we agreed to. I mean  
15 we do that quite a bit.

16 There may need to be, depending upon what the decision is  
17 and the interest and what-not, there may be some other things that have  
18 to be taken into consideration but I would hope that we could do it in a  
19 well-documented manner, because there is no point in you having a  
20 checklist and us having a checklist and then all of a sudden saying  
21 well, no, we changed our mind. That's not the way I want it to go with  
22 this.

23 GENOA: Do you envision as you move through this that for  
24 certain facility types, obviously reactors comes to mind for me, that  
25 you would very quickly see that there was some minimum set of  
information that is going to be required from everybody all the time and  
so you don't have to go back and hash that out and then what else is  
there, you know?

ORLANDO: Yes. In fact, one of the things we will do in the  
Handbook is actually lay out or try and lay about sort of what we call

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1 the core information needs and then depending -- say, for example,  
2 everybody is going to have to come in with their DCGLs. Everybody has  
3 got that who is going to do decommissioning where they are actually  
4 going to have to come in with some numbers, will have to submit DCGLs so  
5 that one is an automatic check, but yes, I think there is going to be or  
6 what I hope to have is something where there is an actual core set of  
7 information that everybody would need to turn in depending upon what  
8 they were doing to decommission.

9 GENOA: Okay, and then this, finally. It sort of ties back  
10 to a little bit of the discussion we heard earlier.

11 ORLANDO: Right.

12 GENOA: Because what we are not saying is, hey, go out of  
13 your way and finish this decommissioning manual or whatever else, but  
14 from a reactor's perspective we have got this 1700 SRP that tells us  
15 what to do. We thought we had a pretty good handle on how to give you  
16 that information.

17 It appears that you want to give us some more definitive  
18 information than that and you are going to reference it over. It would  
19 be nice that somewhere between that referencing -- well, what we would  
20 really like is to see 1700 just tell us what we need to do or at least  
21 the minimum stuff and then perhaps create this mechanism to identify,  
22 well, you have a significant spill or groundwater contamination so you  
23 are also going to need x, y, and z, and that would be documented in some  
24 meeting.

25 ORLANDO: Well, now remember, all of my discussions of the  
Handbook, that is a Materials document, so unfortunately Larry Tiglio is  
not here, so I am not quite sure exactly how they are going to work that  
mechanism under 1700 but I will see if he can't come back this afternoon  
to answer that.

GENOA: There are a couple of things we'd like to ask about

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1 that.

2 ORLANDO: And we'll make sure we get them.

3 GENOA: Thank you.

4 GOODMAN: Lynne Goodman, FERMI-1. There has been some  
5 discussion that it would be nice to be able to have one document that  
6 you could have all the considerations; that the different regulatory  
7 bodies would be interested in one document, rather than have multiple

8 I also would like to keep the flexibility of having separate  
9 documents and not just go the way that it all needs to be in one. For  
10 example, our local building commission, they need just a very small  
11 piece of what we're leaving in underground structures, and not the whole  
12 thing.

13 ORLANDO: Understand, I wasn't saying that there would be  
14 one giant document that takes care of every conceivable regulator's  
15 need. What I was more concerned about is a situation, for example, some  
16 sites that I'm dealing with in Pennsylvania, where there is state  
17 interest or state responsibility for radionuclides that we regulate or  
18 for some other -- there is some chemical contamination that we don't  
19 regulate.

20 Clearly, in a decommissioning plan, we're not going to be  
21 approving anything having to do with chemicals, but there's often a  
22 meshing of activities that occur -- to clean up one, you're cleaning up  
23 another. We need to make sure -- what we want to make sure happens is  
24 that one isn't counter-productive, so you dig up all the radioactive  
25 stuff and you've now gone and violated a law pertaining to chemical  
contamination or vice versa.

So that's what I'm trying to get to, is make sure that  
everybody that's got a stake in the issue or in the decommissioning is  
there to say, well, that would work except for this. So that you don't  
go spend a whole bunch of money, because the one thing that I have found

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1 in taking down a -- in the decommissioning of a couple sites, is the  
2 more people that are at the table that have a stake in the matter early  
3 on, the smoother it goes.

4 So that was sort of what I was trying to get to. State, do  
5 you have any comment? Dave?

6 KARHNAK: John Karhnak, EPA. Just kind of an informal  
7 question and straw vote, if you will. How many of the licensees are  
8 planning to make use of the restrictive condition or restrictive release  
9 of property? I'm just curious.

10 [Show of hands.]

11 KARHNAK: Okay. Thank you.

12 ORLANDO: Any other things on alternatives considered and  
13 rationale for chosen alternative? Module six.

14 [No response.]

15 ORLANDO: The next module is subpart E ALARA requirements.  
16 We had scheduled to do that after lunch, but what I would like to do is  
17 go ahead and do that now and simply because Chris is the principal  
18 author of that and since he's up here and primed, perhaps we could  
19 answer that, and then maybe take our break and adjust the schedule a  
20 little bit after lunch.

21 The thing I'm wanting to try and make sure, just so you  
22 understand, we have a segment tomorrow from 9:30 to 10:30 for sort of an  
23 open discussion and as John Greves and I indicated, we did target some  
24 non-industry stakeholders to come in, and I did sort of say if there's  
25 anything they want to talk about outside of the SRP, we'd give them that  
opportunity.

I just want to make sure that that opportunity still exists.  
I'm not sure if any of the non-industry stakeholders are in the audience  
at this point and I'm hoping that they didn't intend just to show up  
tomorrow. But I want to go make some phone calls at lunchtime and find

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1 out.

2 If there is no interest by some other folks in showing up,  
3 then maybe we can accelerate the schedule a little bit. But if not, I'd  
4 still like to try and do some things tomorrow. But we'll see how that  
5 goes.

6 Having said all of that, subpart E ALARA requirements. Now,  
7 this one was written very specifically. One of the things that you've  
8 got to do as part of the decommissioning, the 25 or the dose criteria  
9 that are chosen include -- take a step back.

10 NRC's requirements for decommissioning or license  
11 termination are 25 millirem plus ALARA. As you know, there are ALARA  
12 programs that you have to have during operations to keep doses to your  
13 workers down.

14 This is not meant to address those types of ALARA programs.  
15 This ALARA program here is how do you determine whether the  
16 decommissioning target that you're going for is ALARA.

17 Having said that, since Chris is the principal author, I'll  
18 open it up to him.

19 MCKENNEY: And the other thing to remind is that when we  
20 wrote this, we hadn't made the decision on 4006. So a lot of things are  
21 referenced back to 4006 and the way it was written relies on 4006 in a  
22 way, or some of the stuff that's said in there. So that will all have  
23 to be incorporated into one document, so it's one cohesive part.

24 ORLANDO: And just to mention that we did say we were going  
25 to try and incorporate the 4006 document into this document. I'm still  
kind of wrestling a little bit with whether I'm just going to cut the --  
make the changes based on the comments on DG-4006 and just bring the  
words in or perhaps take some of the information and put it in as an  
appendix.

I just want to make it so that the -- I want to enhance the

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1 readability of this thing and the utility of this thing, not bog it down  
2 in just too many words in one section.

3 But having said that, anybody have any comments on the  
4 Section 7?

5 GENOA: Paul Genoa, NEI. I've got a couple of comments and  
6 then I have a real question that will help us focus on it.

7 The first is in the document, there is a discussion that if  
8 you meet the screening criteria, then by default, you've met the ALARA  
9 goal, and that was intentional.

10 In the screening, the supplemental information on the  
11 screening factors for soil, it made a contrary statement that said that  
12 you still have to show --

13 ORLANDO: Demonstrate ALARA.

14 GENOA: Demonstrate ALARA. And our comments -- maybe we  
15 read it wrong, but our comments were that, in fact, because of  
16 everything we've seen in the GEIS and other things, persuade us that it  
17 probably will not be ALARA, to go below screening values for soil.

18 MCKENNEY: And I'm surprised by that, because both the  
19 statement of consideration and the GEIS and others put forth that it  
20 looked like, for soil, that if you got down to this screening values or  
21 even just down to 25 millirem even for site-specific, that in most  
22 cases, you would -- there's very few credible scenarios you could think  
23 of that would make anything else ALARA.

24 GENOA: Great. That's what I wanted to hear. And you may  
25 want to go take a look at that Federal Register. There may have been  
not in there, that didn't belong there or something.

I guess -- and if this gets too long, we can cut this off  
and do it somewhere else. But when we went through the ALARA concept  
and talked about our comments, it became evident to me that across the  
industry, there was differing perspectives on what you want out of an

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1 ALARA evaluation and what will be required.

2 Let me just throw out a strawman of what I thought you  
3 wanted and then something else that -- someone else's at it.

4 The concept was that you first decide on a decommissioning  
5 plan and let's say that plan is to go to building occupancy. I've got  
6 the building, I'm going to rip and ship everything that's radioactive  
7 and what's left, I'm going to evaluate the residual contamination and  
8 see if it meets my 25 millirem. Then I'm going to make a determination  
9 what other steps I can take to further reduce the residual contamination  
10 and I'm going to evaluate the cost and the benefit of those additional  
11 steps and see whether it's warranted.

12 All of that is being done before I even do anything. Okay.  
13 And let's say that I believe that going into the facility, ripping  
14 everything out of it and wiping down the walls once will get me below  
15 the level of my DCGLs that I would need to meet the criteria and I go  
16 back to say, well, my alternatives could be to go in and wipe the walls  
17 twice, might be to grit blast, hydrolaze, whatever.  
18 I go through all those evaluations and, coincidentally, I find that none  
19 of those evaluations are justified based on ALARA. I document all that  
20 stuff, I submit it, it gets approved, I go forward, and I'm done and  
21 you're happy and I'm happy.

22 McKENNEY: Yes.

23 GENOA: Now, let's say I go through all that, you approve  
24 the LTP, I'm in the actual act of wiping down those walls and I find a  
25 hot spot on the wall. I believe it still fits in through the MARSM  
approach, dealing with elevated areas of contamination and all of that,  
and when I'm done the evaluation, everything is fine and I continue.

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The question is, does an inspector have the purview to come  
in and say why haven't you done an ALARA evaluation on that hot spot?  
Couldn't you have just gone in and wiped down that hot spot for eight

1 dollars and it was worthwhile? And the question is, do we need to  
2 document those interim decisions out in the field or did we address them  
3 up front in a global ALARA analysis that handled all that?

4 MCKENNEY: That gets into a sort of gray area. There's two  
5 approaches taken allowable for ALARA. One was for sites that had --  
6 looking at this from the point of view that they do know what's at their  
7 site fairly well. So they say that, yeah, based on my analysis of what  
8 the contaminations out there were, so what our basic DCGLs are to meet  
9 the limit are, and a little more activities like this is warranted and  
10 we're saying we'll do these, and then if you do those, you're going to  
11 be fine.

12 So that you could have pre-approval that whatever you do is going to be  
13 ALARA. And the second one was almost sort of what you had talked about  
14 the second time, which was for sites that don't know exactly what's out  
15 there and have an idea that they might be finding stuff that they didn't  
16 know was necessarily out there in the first place or had complex  
17 situations where there's certain rooms or certain areas that have  
18 configurations that would be completely opposite of what the ALARA  
19 analysis showed on a generic scale, that you could actually do these  
20 intermediate ALARA analyses basically in the same way you do ALARA  
21 analyses for operational, and just keep a record of them.

22 Now, that, of course, opens you up for a little more risk at  
23 the end, but it depends on your level of site characterization and  
24 whether you want to go a phased approach or whether you can justify  
25 which way you can do it.

Now, if you did the first one and you had the pre-approval and you had  
said that you were just going to clean the walls and then you found a  
hot spot that met the EMC criteria, but didn't -- those sort of things  
weren't necessarily specifically taken into account in ALARA, whether  
that would be -- require a new part of an analysis or something. That's

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1 sort of --

2 GENOA: Let me help you out. If we were to go ahead as a  
3 reactor and do the license termination plan and include in there a  
4 robust ALARA analysis, as I first described, and put in a section that  
5 described how we would incrementally deal with those kind of issues and  
6 if, in fact, we followed what we said in our LTP, would that be adequate  
7 to ensure that we wouldn't get in trouble?

8 MCKENNEY: Yes.

9 GENOA: We would be able to explain to an inspector that, in  
10 fact, we are following our plan, which is approved and was found robust.

11 MCKENNEY: Right. It's basically that you could either set  
12 up the absolute goals that you meet up from the start or you can set up  
13 a program that says how you're going to determine ALARA during  
14 decommissioning and generally, which I didn't -- I hadn't thought that  
15 detailed, that if you do set up some absolute sort of goals in the  
16 global sense, you may still need to have, at least at some level, a  
17 fallback program that's approved also that says if we do find something  
18 different, then this is how we're going to analyze it.

19 And, yeah, we want either the program or the goal to be up  
20 front so that everybody knows that if you follow these procedures or you  
21 meet this number, and you did the steps that you said to get to that,  
22 we're going to be fine.

23 SEXTON: Dick Sexton, Connecticut Yankee. I guess that it  
24 seems to me the ALARA analysis should be a graded approach and that's  
25 what I'm hearing you say. For the most part, there are probably, as you  
referred to, pre-approved ALARA analyses that we could all agree upon.

MCKENNEY: Right. I think it's really the question that  
we're looking at is kind of the more unique situation and I guess what  
we're hearing is that if we had unique situations, some type of an ALARA  
analysis -- and what I've seen in the past, there would be some type of

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1 a -- maybe a simple ALARA analysis that would be included in the final  
2 survey report on that particular area.

3 MCKENNEY: Right. It mostly likely will span the length of  
4 your decommissioning. Those things also may be reviewed by inspectors  
5 during decommissioning, if you get inspected during that period of time,  
6 but you'd need to document any variances that you did off of the base  
7 ALARA analysis; you left areas different than you said -- in your global  
8 analysis, you said you'd do this; well, in this one area, we didn't do  
9 this because it wasn't really warranted at all, and so you just have  
10 some sort of documentation of how you made that decision.

11 GENOA: Okay. Because I could see it go the other way, too.  
12 You were going to wipe down everything, as I said, and, in fact, you  
13 found out, boy, wiping down this area is such an industrial risk to my  
14 workers that it just is too dangerous, we're not going to do that.

15 MCKENNEY: Right, right.

16 GENOA: We're going to do something else, or we found the activity  
17 wasn't high enough anyway, but we're going to document all that and  
18 ideally have a decision process pre-approved in the LTP to do those kind  
19 of things.

20 MCKENNEY: Right.

21 GENOA: That seems flexible. There was a discussion of good  
22 housekeeping in one section as opposed to radiological ALARA,  
23 radiological issues, and we weren't sure what the intention was there.

24 ORLANDO: Let me take a shot. One of the things that it was  
25 concerned about is the potential for somebody to go into a room that  
hasn't been inhabited for a significant period of time and do a survey  
and come out and say, well, it's clean, it's at the screening levels,  
it's done.

We would expect some type of removal, some type of  
housekeeping to be done, removal of dirt, things like that potentially

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1 in buildings and whatnot prior to going out and doing the actual  
2 evaluation of the room to demonstrate that it met the screening levels.

3 I'm not saying -- what I'm envisioning is a room that's full  
4 of oil and got all kinds of stuff all over it and you go in and do your  
5 survey and say, well, you know, we meet the screening levels here.  
6 Well, there's lots of things that can be masked by just surface dirt.

7 GENOA: All right. That's your concern.

8 ORLANDO: That's what I'm thinking. Those kinds of things,  
9 perhaps some wiping down, if necessary, just to get it to the point  
10 where you can actually do a reasonable survey.

11 GENOA: So the purpose of the housekeeping is ensure that  
12 the physical condition doesn't impede your ability to do an adequate  
13 survey.

14 ORLANDO: Right.

15 SEXTON: But you would not have to implement any  
16 housekeeping -- just for optics, just for visual appearance of the area?

17 ORLANDO: I wouldn't think so.

18 MCKENNEY: That's always in the eye of the beholder anyway.  
19 We're trying to be flexible, but also allow you to know exactly what  
20 we're trying to think, what is going to be a pass.

21 We don't want to set up too many situations where you're  
22 going to be -- it's going to be completely a shot in the dark whether  
23 you're going to be able to get through it. So optics, that isn't a real  
24 concern for us. It's more that you're cleaning everything up so that  
25 you don't -- you aren't basically surveying the wrong stuff.

ORLANDO: In addition to that, some general cleaning should  
be done anyway. I mean, you know, you're going to go in and you need to  
remove some material so you can do a good survey, but by the same token,  
as part of doing that, if you push a little harder on the mop, you can  
end up taking away some contamination.

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1           So that's sort of what we're thinking about; not just that  
2   you go in and wave a pencil at the room and say, oh, it meets the  
3   screening criteria.

4           GENOA: I need to focus our concerns for you, and that has  
5   to do really with the experience at Fort St. Vrain in the past, where  
6   they essentially were required to vacuum dust off of the entire facility  
7   at great cost and some risk to workers for what appeared to be an optics  
8   issue, not what appeared to be a compromised ability to survey.

9           ORLANDO: I'll put that in there so we can consider it when  
10   we're reviewing the document. I don't know that I can answer it right  
11   now.

12          MCKENNEY: And how we would want to re-word it to --

13          GENOA: I fully concur that there could be conditions that  
14   would be unacceptable in a facility that would impede your ability to do  
15   an adequate survey.

16          ORLANDO: Again, I want to emphasize, that is one thing.  
17   There is also just the concept that if you have a facility -- let's just  
18   take a room in a facility, you can achieve a fair -- you can reduce the  
19   dose, the potential dose by just doing normal cleaning and that's the  
20   type of thing we were thinking about, to show that, hey, we're at the  
21   DCGL, but we're not going to pick up a grain of dust because we're  
22   already there, when you could just -- just by cleaning the floor,  
23   mopping the floor normally, you would take up some of the material, and  
24   that's what we're talking about.

25          FORD: This is Brian Ford. Wouldn't that be covered under  
  your ALARA issue earlier? I mean, if I should clean it up for ALARA,  
  then I should clean it up, I shouldn't be cleaning it up for  
  housekeeping. It should follow that path. I guess that would encompass  
  that concern.

          GENOA: I guess I would get back to the issue earlier. If I

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1 met the building occupancy screening values without doing housekeeping,  
2 then I met the ALARA principle, would there be an additional regulatory  
3 --

4 ORLANDO: That, I think, is the question that we've got to  
5 answer, and I'll --

6 GENOA: That's what I will work on.

7 ORLANDO: Yes, provide some guidance on that.

8 GENOA: We're not going to really look for an ALARA  
9 analysis, because of that statement, so in those cases, it may -- that's  
10 one of these things we'll have to clarify.

11 ORLANDO: Okay.

12 SEXTON: Just to add to that. Some of these scenarios, we  
13 may be doing housekeeping on a building that we're going to take down  
14 and that clearly would --

15 MCKENNEY: Right. That clearly wouldn't make sense at all.

16 ORLANDO: You've been waiting patiently.

17 DUVALL: Ken Duvall. I want to just make a suggestion  
18 within this discussion of overall concern about what's the objective of  
19 the ALARA requirement and basically how do you demonstrate that good  
20 practice has been considered.

21 I'd like to offer the suggestion that the ALARA process can  
22 also be viewed as a way of helping meet your survey objectives. Once you  
23 meet the release criteria, the additional remediation will allow you to  
24 have a higher probability of passing the statistical test.

25 And as you know, when you're doing sampling, if you just  
meet the criteria, you have a 50 percent probability that you're going  
to fail and any additional ALARA remediation goes to improve your  
ability to pass that statistical test.

So it could be a consideration in your overall optimization  
of your survey plan and I would suggest that that might be one benefit

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1 that one could gain from this ALARA step in the process.

2 MORTON: Henry Morton. As to Paul's comment and the general  
3 conversation, it seems to me that this is a question of how finally do  
4 you resolve ALARA. The general guidance in DG-4006 seems to me to  
5 basically go to resolution level of about the facility or, at most, the  
6 survey unit.

7 Then if you bring up the issue of do you resolve ALARA more  
8 finally than that, it has seemed to me that basically the statistical  
9 methodology and the hypothesis testing of the final survey basically  
10 provides the remainder of the assurance; that is to say, if you're at  
11 ALARA, by the 4006 guidance, on a facility or a survey unit basis, then  
12 the fact that you'll be well below the limit in some particular spots to  
13 compensate for those that may be up in the range of above the average,  
14 but not above the elevated measurements criterion, on the whole, should  
15 be sufficient assurance that you've met the ALARA test.

16 I don't see personally why one should have then to go to  
17 resolve it to increasingly finer geographical spots.

18 ORLANDO: Okay. We will keep that one in mind, too, because  
19 I don't have a response. Anybody else have anything on module seven?

20 [No response.]

21 ORLANDO: All right, then. It's about ten of 12:00. I  
22 would suggest we meet back here at about 1:00 or so and we'll start up  
23 with module eight.

24 [Whereupon, at 11:55 a.m., the workshop was recessed, to  
25 reconvene at 1:00 p.m., this same day.]

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## A F T E R N O O N   S E S S I O N

[1:15 p.m.]

ORLANDO: Just a sort of scheduling thing I wanted to bounce off everybody. We currently have a -- the agenda shows that we'll go through modules 14 -- to the end of module 14 by about 4:30. We seem to be moving along at a pretty good pace. I don't know if we're going to be ahead or behind that.

The question that I have is, we also were going to do modules 15 and 16 tomorrow, from 8:30 to 9:30, then have a sort of an open discussion, where anybody could bring up any issue they wanted to talk about and then from 10:30 to 11:30 or so, Bobby Eid and Mark Thaggart had a couple of technical presentations they wanted to put on, and then we were going to try and adjourn by about 12:00.

There's a potential for some nasty weather tomorrow, at least in the early part of the day, early part of the morning. I don't know if that's going to happen or not. Those of you that live around here know that if it gets cloudy, we have traffic jams. So I don't know how that's going to play out tomorrow.

In addition, if we end up finishing up today, I don't want to penalize anybody who could conceivably get back home early. So what I propose to do is this. We'll continue going over the modules the way we have been going. If we get through 15 and 16 today, that will be it. Tomorrow, I will be back here at 8:30. I will make the announcement to whoever is here that I am willing to sit for an hour and talk about module 15 and 16 and then open it up for an hour for anybody who wants to make any comments about anything else that they can, and then Bobby and Mark will give their presentation.

If somebody is here today and we finish up everything, discussions of the modules today, and wants to leave, leave me your card and I will send whatever handouts Bobby and Mark use tomorrow to you and

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1 then you can, of course, call them and ask them any questions about it.

2 This way, if you want to stay, you can. My concern is that  
3 we do have a Federal Register notice and an agenda that's out in the  
4 public and there may be individuals who are showing up tomorrow  
5 specifically to say one or two things and then if we're not or if I'm  
6 not here, then that robs them of that opportunity.

7 So does that seem reasonable to everybody? Okay.

8 All right. We left off on subpart E ALARA requirements and  
9 module eight is planned decommissioning activities. Does anybody have  
10 anything they'd like to comment, any questions about module eight?  
11 We're going to get done a lot earlier than I thought. We're now an hour  
12 ahead of schedule.

13 Go ahead.

14 GOLDIN: Just one quick comment. Eric Goldin, Southern  
15 California Edison. You should consider putting some provision in there  
16 that takes into account that many, at least at power plants, many  
17 activities undertaken during decommissioning or actual dismantlement are  
18 fully covered by existing license and FSAR type activities. So we can  
19 conduct business as usual without needing to describe a great deal in a  
20 new document to the NRC.

21 ORLANDO: And one of the challenges in looking at the  
22 decommissioning plans and then writing them, in your case. The  
23 decommissioning plan is required for those activities that have not  
24 previously been approved and that can potentially increase dose to the  
25 public or workers.

So if those kinds of activities are already included, then,  
yes, they may not necessarily need to be in a decommissioning plan.

GOLDIN: I guess in the PSDAR that we submit, we give a  
general description of the kinds of things that would be used as part of  
the decommissioning and dismantlement process, but those are very high

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1 level generic type statements.

2 ORLANDO: Anybody else have anything they want to -- yes,  
3 sir.

4 SEXTON: Dick Sexton, Connecticut Yankee. I guess I did  
5 struggle with -- maybe it's more of a generic question -- what is the  
6 purpose, at least for the power reactors, of PSDAR, of including the  
7 remaining decommissioning activities? Because it's very dependent on  
8 when you provide that license termination plan as to what would be  
9 included.

10 Some of the licensees may wait a lot longer in the  
11 decommissioning process to submit their final status or a license  
12 termination. Therefore, the --

13 ORLANDO: Larry, could you wait just a second? I think this  
14 is -- this is a question that I think is right up your alley. I'm  
15 sorry. Could you restate it?

16 SEXTON: Okay. The question or the comment was on the  
17 planned decommissioning activities and I guess I'm struggling with the  
18 exact purpose of that section or how much detail has to be included,  
19 given the fact that a license termination plan can be submitted to NRC  
20 kind of at pretty broad range of stages within the decommissioning  
21 process.

22 I think Maine Yankee and Connecticut Yankee have elected to  
23 submit the license termination plan relatively early in the  
24 decommissioning process and I think that's an appropriate time if you  
25 want to nail down what your cleanup values are.

But at the same time, you could wait, in the case of the  
reactor or with your PSDAR, you could essentially complete almost all of  
your decommissioning. Therefore, the description of remaining  
decommissioning activities would essentially be there are none and all  
we have to do is perform the final status survey.

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1           So I guess if you have any comments on what is the purpose  
2 of having a description in the license termination plan for the  
3 remaining decommissioning activities, just given the backdrop that you  
4 already have a PSDAR that would essentially allow you to perform all  
5 decommissioning activities.

6           PITTIGLIO: Larry Pittiglio. First of all, under 50.82, the  
7 regulation says that -- and NUREG-1700 clearly says all you have to do  
8 is identify the remaining dismantlement activities, whatever is left  
9 now. It could be that you come in shortly after the PSDAR stage and  
10 there's a significant amount of work to be done or it could be, as you  
11 said, you're done with decommissioning and basically what you're  
12 submitting is a final survey status report, and that's where NUREG-1700  
13 comes in specifically to the reactors and said what you need to do is  
14 only identify the remaining dismantlement activities that need to be  
15 done and that's what you'll do in that particular section.

16           I think that's what you need to recognize. For example, in  
17 the new version of 1700 that's coming out, we reference back  
18 specifically to the module for additional information on final survey  
19 and dose modeling, but because of the fact that the 50.82(a)  
20 requirements were a little unique and only remaining, what was left.

21           Remember, we recognized that once you get in the PSDAR stage  
22 for reactors and you can do early component removal, many times steam  
23 generators are just up at CY, the steam generators are being ready to be  
24 shipped, we recognize all that.

25           When the PSDAR comes in, that's somewhat addressed. But  
when we see the LTP, we don't expect them to go into a discussion on  
steam generators. They've gone. All we want to see is what's left,  
what has to be cleaned up, and so forth and so on.

          Again, you're right, it will dictate -- and that's the  
difficult part for the reactor, depending on when the licensee elects to

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1 submit it. But we're only asking for what's going to be left and how  
2 it's going to be done. We also recognize that in 1700, that a majority  
3 of the decommissioning early component removal and so forth, for  
4 example, was done under an improved rad protection program.

5 If that program remains in effect, the approved program,  
6 that's all -- you're going to continue to complete dismantlement  
7 activities under your current approved decommissioning rad protection  
8 program.

9 It's only the changes in the program we'd be looking at. I  
10 don't know, does that help clarify?

11 SEXTON: Absolutely.

12 PITTIGLIO: And that's why we do have 1700, which, again,  
13 specifically references sections back to the NUREG which Nick has  
14 developed in greater detail, but it has specific sections also that are  
15 unique to address areas under 50.82(a)(9) that are unique to the  
16 reactor.

17 ORLANDO: Thank you, Larry. Didn't mean to yank you back  
18 there.

19 GOODMAN: Lynne Goodman, FERMI-1. I think it's likely that  
20 there's going to be changes in a decommissioning plan, depending on how  
21 complex the decommissioning is. I think either this SRP or one of them  
22 needs to address the change mechanism.

23 It may be that as you get experience, one method isn't as  
24 effective as you wanted -- you had thought, so you decide to use a  
25 different method. If you've locked it in in the decommissioning plan  
for the material licenses or a license termination plan, I don't see how  
you -- especially for the material licenses -- how you accomplish  
changes in an expeditious way.

ORLANDO: Usually through license amendment. There are some  
mechanisms to incorporate a 50.59 type process and, in fact, in the

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1 health and safety plan portion, we talk a little bit about how, if a  
2 licensee wants to try and set up a methodology to do that, what things  
3 they need to take a look at.

4 I think for most decommissionings, we're more interested in  
5 your process for developing the RWPs and reviewing what the activities  
6 are going to be. I mean, from a personal perspective, I don't care if  
7 you're going to use a McMichelson front-end loader versus a Johnson  
8 front-end loader to put dirt in a truck. I don't care about that.

9 What I'm interested in is do you have a method to figure out  
10 which is the best front-end loader to use and you've got some process in  
11 place to make sure that when that dirt is moving around the site, things  
12 are taken -- safety precautions are incorporated.

13 Some of the discussion in here about tell us what you're  
14 going to do is not meant to be so detailed as to be an exact discussion  
15 of everything that you're going to -- every manipulation, I'm going to  
16 use this scoop and pick it up to this height of four feet and take it --  
17 that's what RWPs are for.

18 So I think the amount of information is really dependent upon making  
19 sure that we can understand exactly what the process is that you're  
20 going to have to get the job done.

21 Does that answer your question or did I wander too far on  
22 that one?

23 GOODMAN: It answered part of it. I would say that based on  
24 that answer, I would recommend you delete the word "fully" from the  
25 discussion about the staff should fully understand what methods,  
procedures and techniques are going to be used.

ORLANDO: Anybody else? Comments, thoughts on planned  
decommissioning activities?

[No response.]

ORLANDO: Okay. Who went out and checked the weather

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1 channel and found out that we're getting six inches of snow here  
2 tomorrow and wants to get out of here by 3:00? That's all I want to  
3 know.

4 Decommissioning project management and organization, module  
5 number nine. The idea here is to give the staff some idea or a good  
6 handle on how you are going to manage the process, make sure that --  
7 and, again, from something of a material slant, just to make sure that  
8 an organization exists, that has the review and, in some cases, stop  
9 work authority, to make sure that the decommissioning can be handled  
10 safely.

11 ZINKE: George Zinke, Maine Yankee. Again, focusing on 50  
12 licensees, which I think may be distinctly different, that kind of  
13 information would have been basically approved with original license  
14 submitted and then over time, it would have been changed in accordance  
15 to regulatory change mechanisms.

16 So it would seem that for a Part 50 license, all that would  
17 have already been reviewed.

18 ORLANDO: It may very well be correct.

19 ZINKE: So it wouldn't be your intent to re-review something  
20 that the NRC has already --

21 ORLANDO: To re-review something we had already approved.

22 ZINKE: Yes, or that was approved basically through a  
23 regulatory process, like 50.59.

24 ORLANDO: Well, as long as a decommissioning project  
25 management organization existed that was sufficient to meet the -- to  
make sure that the decommissioning could be done safely, I wouldn't  
think so. In other words, if you have a great project -- a great power  
reactor management team and that doesn't do anything with  
decommissioning, then perhaps you need to think about having a separate  
decommissioning management organization or at least acknowledge that

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1 those people have decommissioning responsibilities, so that we can see  
2 where they are.

3 But as far as having to reinvent something that's already  
4 been approved, I wouldn't -- no.

5 ZINKE: I guess I'm asking more of a process question. When  
6 I enter decommissioning and I determine what organization I ought to  
7 have, under the current regulations, under 50.59, for changing the SAR,  
8 if there is some level of organization that's in our tech spec, I have  
9 to get an amendment, but there are laid-out processes for making those  
10 changes.

11 So if this section is asking for just information about  
12 that, of which all we would have sent to the NRC, not necessarily  
13 reviewed and approved, since regulations wouldn't require it, but  
14 sending the information for information is different than --

15 ORLANDO: Requesting approval.

16 ZINKE: -- requesting approval for something that the  
17 regulations said the licensee had the authority to change.

18 ORLANDO: I wouldn't think we'd want to go back and  
19 second-guess something that had already been approved.

20 ZINKE: Okay.

21 ORLANDO: Keep in mind that in your particular -- for a  
22 50-license, since the process is somewhat different than it is for a  
23 materials license, we might not -- we might not have anything on a  
24 materials licensee decommissioning management organization. That may be  
25 a completely different animal than -- and, Dave, if you want to make any  
comment on this -- the decommissioning management organization could be  
completely different than an operational management organization.

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It may be the same people, it may not be. It may be the  
same people, but contractors are in doing it. But just how that -- if  
it hasn't already been approved, we need to be able to take a look at

1 that.

2 ZINKE: Okay. And a couple other comments. The section  
3 uses a term called safety-related position, which at least seems to need  
4 more definition. I know for a Part 50, under the regulatory definition  
5 of safety-related, I have no safety-related equipment; therefore, there  
6 is no way to tie back to an individual.

7 But I'm not sure that you really intended your use of the  
8 term safety-related to mean the same thing in Part 50.

9 ORLANDO: I'll make sure that that's clarified.

10 ZINKE: Also, in the project management, there seems to be  
11 some emphasis on contractors. I know the historical concern about  
12 contractors, but it's a little odd for a guidance document to point out  
13 them like as a separate group.

14 ORLANDO: The issue there is, as you say, there's been some  
15 questions about that. We wanted to make sure was clearly laid out in  
16 the decommissioning plan is the relationship between the contractor and  
17 the licensee.

18 The potential exists that if there is an issue or a  
19 safety-related issue that could arise at a facility, you all are the  
20 licensee, but the concern is that there isn't some hole or gap or  
21 whatever where the licensee could then say, well, that was the  
22 contractor's responsibility and, no, it's your responsibility, licensee,  
23 and we just want to make sure that you understand and that you've laid  
24 out and that you are fulfilling your requirements under Part 19 and Part  
25 20 for making sure the contractor's people are appropriately trained and  
informed as to what's going on.

Of course, they can do the training themselves. You don't  
necessarily have to do that training, but if these folks are in here and  
they're rad workers, they require some training.

If your decommissioning plan is going to say something,

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1 contractor X, who is licensed to do decommissioning at sites  
2 surrounding, they're handling the training, that's fine, but it just  
3 says tell me what training you're going to do, what training we're going  
4 to do.

5 The concern is that there is not a -- in the event of a  
6 safety-related issue or an inspection issue or something where there  
7 could be some tension between you and the contractor, we just want  
8 something in place so we can see what the relationship is of everybody  
9 that's doing work at the site.

10 ZINKE: And, again, just for Part 50 licenses, I guess the  
11 confusing part about that is that we have no choice, by our QA program,  
12 by our license.

13 ORLANDO: Then this might not necessarily apply to something  
14 that would be sent in to support the decommissioning of a Part 50  
15 license.

16 In a materials setting, it could be that the first time  
17 contractor sets on-site is -- with the exception of when they were  
18 building the plant, is when they start taking it down.

19 ZINKE: Right.

20 ORLANDO: And one of the things in my experience has been  
21 that the contractor is in a room and everybody starts talking about who  
22 is doing what and it's, well, they're responsible; no, they're  
23 responsible. No, no, no, no, no. Make sure everybody understands who  
24 is responsible for what.

25 ZINKE: And I think the answer to this will probably be  
similar. So since Part 50 licensees also are subject to a training  
rule, then that might be out of scope for this -- our submittal of  
information, since we actually have a regulation that says we've got to  
have all of this stuff in place.

Thank you.

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1 GOODMAN: Lynne Goodman, FERMI-1, just a clarification.  
2 Some Part 50 licensees, some of the older ones, we do have exemptions  
3 from the training rule. So we're not quite all the same, at least from  
4 some parts of it, other than what apply to our current status.

5 I do have one additional concern, and that's the use of the  
6 word procedure in here. I would be a lot more comfortable if it was  
7 procedure or practice. In other regulatory documents, the word  
8 procedure means things that require certain approval cycles and so forth  
9 and I think in here it's used more generically, and I wouldn't think  
10 that your radiation work request is supposed to be going to your review  
11 committee for approval.

12 It's part of what is implied here by the word procedure.

13 ORLANDO: Say that last part again.

14 GOODMAN: For example, procedures typically have to have a  
15 very detailed approval thing, like to be going to a specific review  
16 committee. I didn't think in here the specific -- every specific work  
17 document and radiation work permit was envisioned to have that approval  
18 requirement.

19 ORLANDO: We would expect to see the type of approval  
20 process laid out that was reasonable, yes, but that's up to the licensee  
21 to develop. I'm not going to say that everyone has to, but whatever is  
22 approved in the decommissioning plan for what will go through the RWP  
23 process would have to be -- would have to go through that process.

24 GOODMAN: I'd agree that it would have to go through that  
25 process, but it may not be the same process that a procedure has to go  
through.

ORLANDO: Fine. I see what you're saying.

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PALLAGI: Ken Pallagi, Big Rock Point. I'd be interested to  
hear what your intent is on the statement about evaluating for  
appropriate management philosophy, and our philosophy for Maine Yankee

1 and the rest of the plants is different about our outcome and how we get  
2 there. But really our intent is always to follow the regulations.

3 ORLANDO: That statement is -- what I'm looking for -- what  
4 we're looking for there is to make sure that you understand that there  
5 is this process and that safety should be the underpinning for the  
6 entire process, and I'm looking for something that demonstrates that  
7 that is what the management is doing and how they're thinking about  
8 things.

9 PALLAGI: Thank you.

10 CULBERSON: Doug Culberson. I've tried to figure out  
11 exactly how to ask the question. But in the case of many of the fuel  
12 cycle facilities and materials licensees, there doesn't necessarily come  
13 a point in time where you enter the decommissioning process for the  
14 whole site.

15 In most cases, I think it's an incremental thing where a  
16 building may have reached the end of its plant life and it's ready to be  
17 taken down and decommissioning addressed.

18 Would you envision that this decommissioning process would  
19 take place each and every time something enters that decommissioning  
20 arena or are we truly envisioning this process taking place when they're  
21 ready to terminate the license for a site?

22 ORLANDO: I think the guidance that would be offered in the  
23 SRP could be applicable at a lot of different points in the life of a  
24 facility when it's doing decommissioning or decommissioning like  
25 activities.

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If you were to come in and, say, want to incorporate some  
decommissioning type activities into your existing license, even though  
you're not going for complete license termination, try to write this  
with an eye toward being able to evaluate that kind of information.

So that when you do come in for ultimate termination and you

1 say something to the effect, well, we -- our scabbling has already been  
2 reviewed and approved, so we're going to scabble all those, yes, that's  
3 right, we took a look at it four or five years ago.

4 So it's to evaluate decommissioning plans, but also some of  
5 the other information that might be submitted to support  
6 decommissioning-like activities. If you're going to take a building  
7 down and not request license termination, say, we're just going to take  
8 one building on your site down and you were going to send in your  
9 procedures and we were going to review them and send in sort of a small  
10 decommissioning plan just for that, we could use the information in here  
11 to evaluate that.

12 CULBERSON: From a practical standpoint, do you -- and this  
13 is, again, a question -- do you think it's more effective and efficient  
14 use of resources to do -- to prepare a single decommissioning plan that  
15 covers the site and everything there and it gets implemented  
16 incrementally over time, or address those individual buildings or areas  
17 as they come up?

18 I'm kind of grasping here as to what would be the most  
19 practical for everyone involved, what is the best approach there?

20 ORLANDO: That's a tough question and it involves legal  
21 considerations and everything else, because depending upon what you  
22 intend to do, there may be NEPA considerations. For example, if you  
23 were going to continue the license, but decide to not take a building  
24 down and clean it up and bury the material on-site, well, that's  
25 something different and almost set up like a mini-restricted use site or  
sort of a pre-restricted use cell on the property, I think that that  
needs to be looked at on a site-specific basis.

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I don't know that every -- I don't know that there is a best  
way to do it. I think that depends an awful lot on the complexity of  
the site, the management philosophy of what they want to do with the

1 site, do they want to go quickly to green field before disposal fees go  
2 up or do they want to take their time.

3 I wish I could give you a good hard and fast which way --  
4 from our perspective, it's like it's great to get all that work at one  
5 point and then you go do it and then you're done, but it's also nice to  
6 have stuff come in a little bit at a time.

7 CULBERSON: Right.

8 ORLANDO: So is that vague enough? Good.

9 DUVALL: Ken Duvall. I just wanted to make the observation.  
10 If I look at the reactor decommissioning process that you handed out,  
11 the structure of that process is a planning, conducting and assessing  
12 type of structure, phased in that way.

13 I'm trying to understand how that correlates with the NRC  
14 D&D plan. I see 16 modules, each of which may have a planning,  
15 conducting and assessing phase and which some modules, decisions in one  
16 may be correlated with the other.

17 To facilitate your having these two processes going  
18 parallel, I would suggest that in this section, have a road map for the  
19 NRC process in terms of the planning, conducting and assessing.  
20 Planning is a very important aspect and they all seem to come back  
21 around in a sort of iterative type of way.

22 ORLANDO: Thank you. We'll take that into consideration as  
23 we move forward.

24 Anybody else on planned decommissioning activities -- excuse  
25 me -- decommissioning project management and organization, I'm sorry.

[No response.]

ORLANDO: Health and safety programs.

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This one is specifically done so that it would help the  
staff better understand a lot of the health and safety issues that are  
going to be raised during decommissioning. We look at lot at

1 respiratory protection and things like that in there, and give lots of  
2 references to the different Reg Guides that the staff will need to  
3 evaluate the programs against.

4 That section was actually written by one of our top  
5 inspectors and license reviewers out in the Region. He was specifically  
6 asked to do it because of his knowledge of this area.

7 And I just wonder if there are any comments that anybody has  
8 on that.

9 PALLAGI: Ken Pallagi from Big Rock. Just for our benefit  
10 from a public perspective, when we talk, we look at health and safety.  
11 At our facility, health and safety is extremely immense and encompasses  
12 EPA, OSHA and all those things.

13 And when we looked at this, this really looks like a  
14 radiation safety program.

15 ORLANDO: Yes, sir, it is.

16 PALLAGI: And we just ask some consideration and clarity so  
17 when we have people that ask us about your health and safety plan and  
18 only see radiation protection, we don't want them to be confused.

19 ORLANDO: So like maybe have it changed to radiation safety  
20 program or something.

21 PALLAGI: Yes, thanks.

22 ORLANDO: Yes, that's fair. Anybody else. Any other  
23 questions I can answer on health and safety questions? Programs? Yes,  
24 sir?

25 TARZIA: I'm Jay Tarzia with RSCS at Connecticut Yankee.  
Going back to the point that you made earlier, for most large licensees,  
Part 50 licensees, especially, have radiation protection programs that  
are already reviewed and approved by the NRC.

Would it be appropriate just to reference that, or would we  
have to go into detail in the plan on the program itself? NRC, in most

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1 cases, has copies of our plan already.

2 ORLANDO: I think the key is to make sure that all the  
3 information is included in one document. A lot of times, these DP --  
4 now, again, you're in LTP PSDAR space, and a lot of times, that kind of  
5 information isn't or doesn't show up in a materials license.

6 I think that you can work that out with your regulator when  
7 you come in with your plan. Perhaps you could just send that in. I  
8 know I have some licensees who have just sent me their radiation health  
9 and safety plan, so that I have it, so that it's in the docket for that  
10 action, for the decommissioning.

11 If all of the issues that need to be addressed for  
12 decommissioning are already addressed in the existing health and safety  
13 plan, then it's probably fine.

14 You know, sometimes there are some unique issues to  
15 decommissioning that you don't see during operation. And that would be  
16 the thing we'd want to focus on.

17 TARZIA: You know, so we could focus in our LTP in the  
18 changes perhaps to customize the program for decommissioning?

19 ORLANDO: Well, I hesitate to speak for the reactor folks,  
20 because Larry just left again. I'll take it into consideration when  
21 we're rewriting it.

22 I can't give you a direct answer because I'm not an expert  
23 in reactor decommissioning.

24 SEXTON: I guess, to add to that, I mean, again, to the  
25 timing of these license termination plans, I mean, we're currently, in  
the case of Connecticut Yankee, right in the throws of major  
decommissioning, so I would assume that some fairly succinct description  
of existing program will be more than adequate to address this  
particular section, given that we are, in fact, with NRC's approval,  
proceeding with the decommissioning activities, in which you'd obviously

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1 need all the elements of this particular section.

2 ORLANDO: Right, I think that that's probably reasonable,  
3 but I would still -- but, you know, I'm not the decisionmaker for your  
4 project. So I'd make sure that you double-check that with whoever the  
5 PM is for that project. But that seems reasonable to me.

6 Anyone else?

7 [No response.]

8 ORLANDO: Effluent monitoring and control program, Module  
9 No. 111. Any thoughts or questions on that section?

10 GOLDIN: Eric Goldin, Southern California Edison. Just,  
11 again, for Part 50 licensees, these are all license requirements already  
12 to have the programs and the annual reports to the NRC and everything.

13 So from our perspective, this has all been taken care of.

14 ORLANDO: Yes. I don't see where all that actually ends --  
15 really needs to change. There just needs to be an assessment as to  
16 whether it's appropriate and adequate. Again, I'm thinking of it more  
17 from a materials licensee.

18 They're going to have effluent monitoring programs in place  
19 already, too. That's just not unique to a Part 50. And you just have  
20 to make sure that you have taken a look at all of the impacts that  
21 decommissioning may have.

22 And if something is going to change -- and you may be able  
23 to actually scale back in some instances. I mean, there may be  
24 situations where you're going to take down a building, and you don't  
25 necessarily need a well next to it, or something next to it, because the  
building is gone, you know.

So, the point is that you just have to make sure that what  
that the program is commensurate with what you're doing. And if the  
program adequately addresses all of those things, fine. If there is  
something extra that needs to be tagged on, that's fine, too.

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1 But that's one of the things that you would talk about when  
2 you sat down to develop the decommissioning plan.

3 ZINKE: George Zinke, Main Yankee. One of the conceptually  
4 difficult things is because the process really is different for  
5 materials versus reactors. So, for a reactor, I continue to  
6 decommission, and I don't need this approval. I can go -- I don't even  
7 have to submit until I'm almost done.

8 ORLANDO: That's correct.

9 ZINKE: So I'm really not looking for approval of, in this  
10 case, like an environmental monitoring, versus --

11 ORLANDO: You may not even be sending that in. As Larry  
12 said, your LTP describes the remaining decommissioning activities.

13 ZINKE: Versus the materials license that maybe can't even  
14 start their decommissioning until they get some approval.

15 ORLANDO: Correct.

16 ZINKE: And so we're trying to make sure that at least the  
17 message being given out is, like, if you have to send a whole bunch of  
18 stuff to be reviewed, if you send it early it's rather a disincentive,  
19 and you just wait till you're done, and then there's nothing to send to  
20 the NRC.

21 So we're trying to balance those two things so that we don't  
22 end up getting caught because of some words of having sent a lot of  
23 information, that if we just waited a year, we'd never have to send.

24 ORLANDO: I don't really know how to respond to that, other  
25 than that's the decision that you and your management make. And using  
NUREG 1700 and coming in and talking to NRC about what, exactly, would  
be expected to be submitted, you can help do that balancing act, and  
determine whether you're going to send in your LTP early up, or later  
on.

I think that -- again, I'm not a reactor decommissioning

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1 expert, but my understanding is that that is totally up to the licensee  
2 as to when that is submitted, within certain parameters, within two  
3 years of termination, requesting termination and things like that.

4 ZINKE: And that's true. I guess the oddity there is that  
5 we wouldn't have considered that if you send it in earlier, that the NRC  
6 has more regulatory authority to tell you to do things than they would  
7 have if you just waited a year. It would seem the regulations and the  
8 regulatory scope of what needs to be reviewed and approved would be the  
9 same, independent of when you send it in.

10 ORLANDO: Well, that will be regulated, that will be set up  
11 by NUREG 1700, and that may not reference -- may not require you to do  
12 all of the things that are in here.

13 ZINKE: Okay.

14 ORLANDO: You, as a reactor licensee, your guiding document  
15 is going to continue to be 1700, and you'll work with your regulator at  
16 that point to figure out what is going to be required through 1700. If  
17 you're required to send that material in, this will be one of the things  
18 that can be used to evaluate that material.

19 But that doesn't mean to say that you have to send in  
20 everything that's in here through NUREG 1700, or through the license  
21 termination plan, as reviewed through NUREG 1700.

22 GENOA: Paul Genoa with NEI. Just for the utility guys that  
23 are here that are sweating these bullets, clearly in speaking with Larry  
24 just for a moment, he has indicated that they're very close to release  
25 of -- they're moving it through concurrence and all of that, and that it  
clearly is the intent that it will provide a road map directly to the  
sections that are applicable, and that it will use those words, if  
applicable, in all those sections where there is some question.

And we clearly are going to have to review that document  
before we can -- and we are clearly going to have to see that to allay

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1 some of the concerns that we're hearing around the table. But I'm  
2 confident that their philosophy is headed in the right direction, so  
3 we're going to have to take a look at the results.

4 ORLANDO: I thought I saw another hand. Yes, sir?

5 TARZIA: Jay Tarzia, again, with Connecticut Yankee. You  
6 know, we keep pointing out the difference here between the power plants  
7 and the Part 30 licensees in terms of the fact that we could  
8 decommission essentially without a plan for a long time before we submit  
9 a plan.

10 But I have been involved in a lot of Part 30 licenses that  
11 have current programs for decontamination, and they have a program for  
12 handling radioactive waste, and for shipping off material.

13 It's not inconsistent what with power plants are doing where  
14 essentially they could get rid of all of their sources, decontaminate  
15 their entire facility before they even apply for a decommissioning plan.

16 I mean, it's within their current processes, so I guess I'm  
17 struggling as to when even the small licensees are going to know that  
18 they have to submit this document. In a sense, they could be all done  
19 cleaning up their facility before they submit their plan, as well.

20 So how much does it buy them by describing their radiation  
21 protection plan and their effluent monitoring plan and their waste  
22 management plan? Because, essentially, a lot of these folks can do this  
23 stuff under their current operating plans.

24 ORLANDO: As I was saying earlier, one of the things that I  
25 hope to be able to use this for is to review those kinds of procedures  
that are included in operating licenses.

Now, a little contrary to what you said, if you're not  
approved to do certain D&D activities at your site, at least in the  
& materials side, you're not supposed to be doing it.

TARZIA: I understand that.

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1           ORLANDO: And when -- and you're correct, though, that there  
2 are some licenses out there that allow a -- on the materials side --  
3 allow a fairly significant amount of D&D to occur. But in approving the  
4 licensee's request to do those things under the operational license,  
5 those activities would have been reviewed and approved.

6           This could be used for those activities, and then when they  
7 come in at the end and say, well, the only thing we have left to do now  
8 is move some dirt around, okay, fine, we have some criteria for  
9 reevaluating how you move the dirt around.

10          We already looked at how you're going to scabble, and how  
11 you're going to take care of waste and whatnot, you know, earlier on in  
12 the process when you were still under an operating license.

13          TARZIA: But you mentioned earlier, for example,  
14 sealed-source licensees and medical licensees. Those sorts of  
15 facilities, they could get rid of all their stuff prior to --

16          ORLANDO: I also said that one of the things that we have to  
17 keep in mind is that we're going to revise our NMSS Decommissioning  
18 Handbook. I'm not sure if you were here. That was earlier on this  
19 morning.

20          Revised the NMSS Decommissioning Handbook, and in there, it  
21 lays out the decommissioning activities that different types of  
22 licensees, or the NRC staff's activities, given different types of  
23 licensees and how they're going to be decommissioning.

24          For a sealed-source and device licensee, clearly, all they  
25 really have to do is send in a 314, maybe send us a copy of their last  
source leak test to show that it hadn't leaked, and a statement that  
they have taken down all the signs, and everything is fine. We're not  
going to expect a decommissioning plan at that point.

            The other example I used earlier on was, say, just a  
hospital that maybe has a licensee for Tech-99 generators and some

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1 sealed-sources for doing those calibrator consistency checks. You know,  
2 they can send saying something to the effect of, well, all I've ever had  
3 is Technetium in these sources, and these sources went back here, and  
4 here is something that shows that they got where they were supposed to  
5 go, and we sealed up the room for a week and a half. Well, the Tech is  
6 gone.

7 You know, they wouldn't necessarily have to send in the  
8 decommissioning plan, but we're going to lay all that kind of stuff out  
9 in the NMSS Handbook.

10 TARZIA: I guess my whole point with this is that I think  
11 it's unclear to a lot of small licensees, as to what is just normal  
12 facility cleanup, and what is going to be considered decontamination  
13 when we go down this road. I know a lot of small licensees that do  
14 scabbling and will clean up concrete as part of their program because  
15 they have contaminated an area, and probably haven't submitted a  
16 decontamination plan or decommissioning plan, because it's just one part  
17 of their facility that they're cleaning up, and they still have a  
18 license.

19 ORLANDO: Yes, well, that license would assumedly include  
20 the review and approval of how they were going to do that, maybe not  
21 directly, but if nothing else, maybe they have a process for developing  
22 RWPs and reviewing those kinds of operations that are embedded in the  
23 license and in the Health and Safety Plan, so we wouldn't -- you know,  
24 those operations wouldn't need to have a decommissioning plan because  
25 they had already been approved.

KILLAR: Felix Killar, Nuclear Energy Institute.

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I just wanted to elaborate on the discussion that we just  
had, in that there are all sorts of levels of material licensees, and  
when you start talking about major material licensees, the fuel  
fabricators, enrichers, conversion facilities, things along that line,

1 they're very similar to the reactor community. Most likely, they're  
2 going to be very similar to the reactor community insofar as what their  
3 actual decommissioning plan says.

4 They will be able to do a lot of the remediation, equipment  
5 removal, and things like that, under their current operating license  
6 because that's what they typically do during refurbishment and changes,  
7 updating, what have you, of the plan.

8 So there isn't a whole lot of difference on areas along that  
9 line.

10 Probably the two areas where the major materials licensees  
11 will have to come in for is how they're going to dispose of buildings,  
12 once they've gutted these buildings and removed all the equipment, what  
13 they're going to do with the buildings. That's something that's after  
14 routine operations, and so how are they either going to leave them  
15 standing, or if they are going to tear them down and things along that  
16 line.

17 The other thing is any type of contaminated soil. Now,  
18 certainly, they have provisions in their operating license now for  
19 cleaning up spills and what have you, but when you start talking about  
20 the amount of contamination you have there and the amount of soil there,  
21 it's beyond routine -- I won't say, routine, but -- we don't have  
22 routine spills -- but beyond a spill that you would typically have at  
23 the site, so it's a matter of how you handle that dirt.

24 Those are probably the two biggest things for major material  
25 licensees that we address in their decommissioning plan, and then the  
final survey which everybody has to provide the information for.

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Once you get from the major material licensees and drop on  
down, you know, you have a whole entourage of people, similar to what  
you were just talking about. If you've got a sealed source individual,

1 you know, he ships that source back to the manufacturer or to a  
2 low-level waste site and does a survey, and he sends a report that, hey,  
3 I've got rid of all of my radioactive material, I've surveyed my site,  
4 here is my final survey result. I want my license terminated, and  
5 that's it.

6 So you have a whole list, and I think what the NRC is trying  
7 to do here is to provide for all the gauntlet. What they're trying to  
8 do is put out a program that, this SRP, to cover everybody from the guy  
9 who has got everything to the guy who has almost nothing and stuff. And  
10 so, consequently, you have to have all of that in there.

11 And so it's a matter of how it's applied, and part of what  
12 your decommissioning plan is, is pointing out those sections that apply.

13 Just along the same lines that you're talking about on the  
14 radiation protection, health and safety programs, you know, for major  
15 material licensees, we will say that if we go into a decommissioning, we  
16 are basically going to continue to abide by the health and safety  
17 programs that we currently have approved by the NRC. That's all we need  
18 to do.

19 ORLANDO: But possibly augmented a little bit over here  
20 because now we're going to be putting up HEPA tents or something like  
21 that.

22 KILLAR: Something along that line.

23 ORLANDO: I agree with you, and that's what I was talking  
24 about this morning with, you know, get with your regulator, come into  
25 the NRC, determine what, exactly, needs to be in your decommissioning  
plan.

26 I mean, you could go through bullet-by-bullet-by-bullet and  
27 there's an understanding that's reached that this is the information  
28 that's needed for your site.

29 Keep in mind, this is, as I had hoped I made clear earlier

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1 today, and what Felix just, I hope, made clear again, this is everything  
2 we could think of. It doesn't mean that it's everything that everybody  
3 will have to send in, but it's everything that we could think of, and  
4 every piece of data and every evaluation point.

5 So, in the end, you don't get a question for, or you don't  
6 get an RAI that says send me this, and you're thumbing through trying to  
7 figure out, well, what -- how are they going to evaluate that?

8 And so the point was, soup-to-nuts in the two documents, and  
9 then tailor it specifically to your site.

10 NARDI: Joe Nardi, Westinghouse. Just building again on  
11 this, you were talking about the operating procedures. Is this activity  
12 within the procedures that are authorized under a material license?

13 When it's a broad scope like some of our licenses, we have  
14 no authorized procedures. What we have is a strong radiation safety  
15 committee and a mechanism by which we do our own internal review. I  
16 keep telling our people that we are acting as the NRC in this situation.

17 And basically that's what we try to do, is, we review our  
18 procedures as we are going, not incorporating them into a license  
19 amendment for NRC review and approval. It gives us more flexibility.

20 And so in the one license that we are decommissioning, it is  
21 very much like a reactor licensing process, because the determination  
22 was made in accordance with discussions with the Region.

23 ORLANDO: Right.

24 NARDI: That we could do everything inside the buildings  
25 without a decommissioning plan.

ORLANDO: And that's the key. The thing you said is, in  
discussion with the Region. You know, you went, we know what you're  
doing, you know what you're doing, and you know what we expect from you.

They key here is the communication. Everybody is playing  
from the same sheet of music. If the Region takes a look at your

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1 license or headquarters to the regulator looks at your license and says,  
2 yes, you know, you can do this, this, this, and this; you don't have to  
3 send in a decommissioning plan to do that.

4 That's fine. You'll have somewhere where that will be in  
5 writing, and that's your marching order.

6 The key is that when those activities or procedures or  
7 whatever that warrant review come up, the mechanism exists for you to  
8 come in, you talk about it, you've got some evaluation criteria against  
9 which to take a look at it, and then it moves on.

10 Anybody else on effluent monitoring? I don't think we  
11 talked too much about effluent monitoring there, but --

12 Radioactive Waste Management Program: any questions,  
13 comments or thoughts on that Module?

14 GOLDIN: Eric Goldin, Southern California Edison. I have a  
15 couple of quick comments. You might consider including some provisions  
16 in the discussion for volume reduction vendors and waste processors.  
17 There's a lot of talk about sending information specific to what  
18 disposal facilities are going to be used for certain kinds of material.

19 But in a lot of cases, depending on cost/benefit analysis,  
20 waste processors are the preferred choice.

21 And also you might consider including alternate disposal  
22 under 20.2002 as an option for some waste disposition.

23 ORLANDO: Just to comment on that, that's always an option.  
24 20.2002, is actually evaluated against NUREG 1102, and there are some  
25 guidance that we have for that.

So if you were to come in, you wouldn't necessarily -- you  
may or may not make your 20.2002 request in the decommissioning plan.

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That would be something I would think that the best thing to do would be  
to talk to your regulator about that up front. Depending, a 2002 could  
involve the development of a separate EA, okay, which takes some time.



1           And so you might not want to fold, at least on the materials  
2 side, you might not want to fold the development of a 2002 EA into the  
3 development of a decommissioning plan review EA. There might be some --  
4 or you might want to do both. It really depends.

5           But that's something that you've got to work out with the  
6 regulator, but, yes, I think it's probably appropriate to make mention  
7 of the 2002 option.

8           GOLDIN: And also, there's a lot -- the SRP seems to request  
9 a lot of detail, very prescriptive things, volume in cubic feet, for  
10 example, where the licensee may want to provide information of mass in  
11 pounds, for example.

12           I know that's one of the approaches that our people are  
13 using, and, yes, you can make the conversions, but our construction guys  
14 come up with mass in pounds or tons. And then there are some areas  
15 where it might be -- you might want to soften the requirement a little  
16 bit.

17           There are some areas where it almost appears to be delving  
18 into contractual issues where the NRC, according to this, is going to  
19 compare your waste characteristics with what the disposal facilities are  
20 able to accept. And those issues may be best addressed in contracts  
21 between the licensee and the waste disposal operator.

22           ORLANDO: You're going to send me these?

23           GOLDIN: Sure.

24           ORLANDO: If you have any specifics where you think that  
25 that boundary is being crossed --

          GOLDIN: No.

          ORLANDO: -- please -- I mean, in here, please feel free to  
indicate that.

          GOLDIN: Okay.

          ORLANDO: I want to make sure that we don't tread on any

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1 legal toes and get into any proprietary things we're not allowed to do.

2 Anyone else?

3 LITTLEFIELD: Pete Littlefield, Duke Engineering. Just  
4 another example of that, I guess, Nick, of the last bullet item on  
5 solids where it talks about they want you to list the name and the  
6 location of the disposal facility that the licensee intends to use for  
7 each solid waste type, summarized in Bullet 1 above, I guess our  
8 experience is that that's something we decide on a case-by-case basis as  
9 we go through decommissioning. We do it on a most cost-effective basis  
10 to decide where we're going to send that.

11 ORLANDO: Rotating contracts, best bids, changing year to  
12 year? Well, you know, something like that could be described. You now,  
13 you could talk about different options that you're going to use.

14 I know that when I talk to my licensees, I have a pretty  
15 good idea where they're sending stuff. That's in a lot of cases done --  
16 originally, in the decommissioning plan, they'll say here's where we're  
17 going to send it, and then as things change, they'll send in some  
18 notification that they may be changing their vendor or they may just  
19 write in that they're going to make sure, because under Part 20, they  
20 have to ensure that wherever their material is going, that facility is  
21 licensed to have it.

22 That's evaluated during inspections, so the concern is not  
23 so much that material will go to a facility that it's not supposed to be  
24 going to. I think the issue there is just to make sure that we all  
25 understand that, yes, you've got some place that you're going to be  
sending it, and you're going through that process of making sure that  
they know what they're doing, or that they are allowed to have it

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If you get a -- come up with a better price someplace else,  
that's good for you, you get a bonus.

An other things on rad waste? Next waste, liquid waste and

1 solid waste, Module No. 13. I'm going to suggest that we just keep  
2 going. I think there was a break scheduled for about an hour, but I  
3 have feeling we're going to get to that point pretty quickly.

4 So, I'll stay as long as anybody needs to. Quality  
5 Assurance Program, does anybody have any questions or thoughts about the  
6 module on that?

7 ZINKE: George Zinke, Main Yankee. Similar to some comments  
8 before, it would seem probably that the intent here is that if we  
9 already have NRC-approved QA programs, which all the 50s would have and  
10 Part 72 licensees would have, that --

11 ORLANDO: And may of the regular 70s, 30s, and 40s have.

12 ZINKE: Is there an intent of this section to re-review  
13 that, or is it just trying to capture those that --

14 ORLANDO: It could be either referenced -- if things have  
15 changed somewhat, you know, yes, that would need to be reviewed. But if  
16 you've got a program, even in the waste management of in some of the  
17 other ones, it's just looking at the changes.

18 You know, you may have to just describe it, but it wouldn't  
19 necessarily be a re-review, re-approval kind of a thing.

20 ZINKE: Part of this section is very prescriptive, and it  
21 prescribes some things that are not required for Part 50 QA programs.  
22 And the regulations don't require it, and it wouldn't be in ours.

23 So then it's my understanding that just because we are  
24 different, the fact that it's approved, you're not going to try and  
25 impose new requirements on top of what had already been approved?

ORLANDO: Correct.

GOODMAN: Lynn Goodman. I like that previous answer, but I  
also want to comment that there seem to be some things in here that go  
beyond what is practical or what is necessary for a licensee. I'll give  
you a couple of examples:

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1           There is a requirement here that someone doing a  
2 self-assessment can't have any responsibilities in that area. To be  
3 self-assessment means that you are assessing yourself, so that's the  
4 best person to do a self-assessment, which is different than an audit.

5           And the NMET items in here, I agree measuring and test  
6 equipment used for making decisions and doing your final survey and so  
7 forth, needs to be in a fully-calibrated program. But, potentially,  
8 things you're using for information-only purposes doesn't.

9           Some of the record storage requirements in here such as like  
10 two-hour fire cabinets for temporary storage, again, to me, that seems  
11 rather excessive. It's more stringent than most of the quality  
12 standards that are out there.

13           ORLANDO: The author of that module is here in the audience.  
14 John, could you -- do you have any response to that? Just state your  
15 name.

16           BUCKLEY: John Buckley with the NRC. I think the intent was  
17 to come up with criteria that are similar to what you folks are used to  
18 seeing in Part 50, Appendix B, and in QA-1.

19           So if you find things that you think are more stringent than  
20 what you already have in those programs, again, point those out, and I'd  
21 be happy to take a look at those.

22           Again, as Nick stated earlier, you have to tailor this to  
23 your own facility and your own program.

24           GOODMAN: I agree, and I understand it's being tailored, but  
25 some of these, I didn't think that should have to be for anyone to have  
to use.

          BUCKLEY: Okay, we'd be happy to look at those.

          CULBERSON: Dave Culberson. One of the discussions I had  
earlier with one of the fuel cycle people was that at the point of  
decommissioning, it may be very appropriate that the QA program goes

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1 down and gets revised downward to next to nothing, because the quality  
2 is in how you calibrate instruments and how you implement your  
3 procedures, but there are no safety-related components anymore, there  
4 are no procurement issues or the procurement issues would be minimal.

5 So, I think it's quite likely that if you have an existing  
6 QA program, you could justify downgrading that to something less for  
7 decommissioning efforts. If fact, if I understand what was said  
8 earlier, I think there's a good opportunity there to reduce your program  
9 and still have a very effective one for decommissioning.

10 And is that kind of justification something that a licensee  
11 could put in, and, in effect, justify?

12 ORLANDO: Yes. In fact, if you think about it, I mean, the  
13 decommissioning plan -- I know your concern is that it's going to ask  
14 for more. Well, in some instances, the decommissioning plan can be used  
15 to reduce a lot of the activities that you would have to have done if  
16 your license just remained in effect and you just started tacking on new  
17 things to it.

18 There are some instances where there are a lot, depending  
19 upon the licensee, of safety procedures, processes and whatnot that are  
20 in place that are only applicable when it's an operating facility.

21 And the decommissioning plan can help you remove a lot of  
22 those things. Again, this may be more of a materials issues, because I  
23 think that in the reactor world, you can do a lot of that yourself  
24 anyway.

25 But the thing I'm thinking of is that if you have a very  
aggressive pressure systems check inside your building or something like  
that, well, the building is gone and you haven't modified your license  
to say you don't have to do that, you could conceivably be ding'd for  
& not doing a pressure system check on a system that doesn't exist  
anymore.

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1           So, the decommissioning plan is not only meant to enhance  
2 the safety during the decommissioning, but it's also a way for you to  
3 reduce those things only to the activities that you really need to do  
4 during decommissioning.

5           So, yes, to answer -- that's kind of a long-winded answer to  
6 Dave's question, but, yes, you can use that to ease the DP, to start  
7 scaling back to the appropriate level, the activities and oversight that  
8 you do at your facility.

9           ZINKE: George Zinke, Maine Yankee. It was mentioned  
10 earlier this morning about change mechanisms. In this particular  
11 section on QA, it has a few statements that deal with when to submit  
12 documents to the NRC, and it implies which ones you'd need approval  
13 before you could implement, and ones that you would approve after  
14 implementation.

15           In one of the sections we reviewed this morning on the  
16 ALARA, it had a requirement in there to submit change pages within a  
17 year. The specifics in the QA program have to do with submitting  
18 certain things 30 days ahead of time or 30 days after.

19           My suggestion is that those kinds of things that either have  
20 to do with the change mechanism or of the decommissioning plan or  
21 license termination plan, or time periods of submittals of changes, that  
22 if those could be captured in one location, I think it would be easier,  
23 because they tend to go -- you know, they're not -- in the current  
24 regulations, it's not necessarily required, all of this, particularly  
25 for Part 50 license.

          ORLANDO: Okay, we'll take a look at that.

          CULBERSON: Dave Culberson again. That raises a question I  
had earlier and postponed till a more appropriate time, but once a  
decommissioning plan is approved, it's done by license amendment, if I'm  
correct there.

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1           What is the stature of that decommissioning plan relative to  
2 the license conditions? Is it a document that cannot be changed? Or  
3 can a change mechanism be built into that decommissioning plan that a  
4 licensee could review and make some judgment and make some changes  
5 without prior NRC approval?

6           Or does that document become an enforceable, inspectable  
7 document that is like a license in that sense. This is where I think a  
8 lot of the phased approach Joe was talking about earlier that may come  
9 in, that once you get into process, you realize certain things can be  
10 done better or more cost-effective, and without compromising safety, but  
11 is there a mechanism in place to do that?

12           Or do you have to revisit the decommissioning plan,  
13 resubmit, get re-approval? What do you envision in that sense?

14           ORLANDO: Well, right now, when the decommissioning plan is  
15 incorporated into the license by a license amendment, it's not like the  
16 license; it is the license.

17           CULBERSON: Oh, it is the license.

18           ORLANDO: Yes. I mean, it is a license amendment, and  
19 you're required to abide by it, and it would be incorporated usually in  
20 a tie-down condition.

21           Now, what I would suggest -- and, in fact, in the health and  
22 safety program portion, it's sort of -- it talks about modifying some of  
23 the health and safety procedures.

24           But if you think that during the development of your  
25 decommissioning plan, if you can see some areas where it might be --  
where, because of a decreasing potential for harm, there are some areas  
where you might want to be able to have some flexibility to reduce  
certain programs or whatever, that, I think you need to be able to put  
in that mechanism into your decommissioning plan, and then we would  
review that particular process.

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1           It's almost like a 50.59 type process, which could be  
2 incorporated into a decommissioning plan. I've seen situations where a  
3 licensee will set up sort of a -- well, not sort of a radiation safety  
4 committee, but the radiation safety committee will look at it, the ALARA  
5 committee will look at it, the RWP development group will look at it,  
6 and say, okay, all of these people have taken a look at it.

7           They've signed off on everything, and, you know, we can now  
8 change from doing it this way to doing it this way. The NRC staff  
9 reviews that process, and says, this process is valid and will ensure,  
10 you know, the safety, so, yes, you can do that within certain  
11 parameters.

12           LIEBERMAN: Jim Lieberman, OGC. I was just going to add  
13 that we have approved in recent months, several decommissioning plans  
14 which are license amendments that do contain a 50.59 type process.  
15 They're publicly available, and there's no reason why everyone can't use  
16 those types of conditions.

17           ORLANDO: I think, Jim, since you have obviously seen them,  
18 I think that the thing that we focus on there is the process for making  
19 the changes, and making sure that the process that the licensee has in  
20 place adequately evaluates all of the potential harm, all of the  
21 potential for harm that could come from the change, and that that's  
22 mitigated.

23           LIEBERMAN: That's right. It's tied to the environmental  
24 assessment, the EIS, safety evaluation. It's very similar to 50.59.

25           NARDI: Joe Nardi, Westinghouse. We've done much of that.  
I would really suggest that that be another topic in this table of  
contents.

ORLANDO: You mean an actually chapter?

NARDI: Yes.

ORLANDO: On modifying or something like that?

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1 NARDI: What is NRC's concept of -- we don't, as a materials  
2 license, have a lot of experience with the 50.59 process.

3 ORLANDO: Right.

4 NARDI: And so it becomes a -- I have gone through my first  
5 one under a Part 50 license, and it was enlightening.

6 ORLANDO: You're too kind.

7 NARDI: It would be helpful if there were a chapter in this  
8 Standard Review Plan that acknowledged the possibility, and gave the  
9 expectations of what the NRC would want to see in this development of  
10 the process that you talked about.

11 ORLANDO: Take a look at Section 10.2 which talks about  
12 health and safety procedures. That lays out kind of what we were  
13 thinking about for at least that program. I think that that could --

14 NARDI: I think that that could be expanded, though, to all  
15 of these elements to allow us more flexibility, not just the health and  
16 safety plan.

17 ORLANDO: Okay, that's a good suggestion and we'll consider  
18 it.

19 Any more on quality assurance programs?

20 [No response.]

21 ORLANDO: Okay, facility radiation surveys. Yes, sir?  
22 Please don't ask me any technical stuff.

23 SEXTON: No. Dick Sexton, Connecticut Yankee. Some of  
24 these are minor issues and I'm sure you'll clarify them.

25 Section 14.2, there's a discussion about contamination or  
surfaces that are not readily accessible, and a discussion of them.  
Then it goes on to say in a discussion of how they were surveyed and why  
they did not meet the survey.

I guess my comment would be that for inaccessible surfaces  
and areas -- and certainly in the reactor world, I think what's

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1 appropriate to be included is an acknowledgement in any characterization  
2 report is that they were not surveyed, some plan and acknowledgement  
3 that they will be surveyed is sufficient.

4 I can give you examples of slabs inside buildings which I  
5 think was already referred to, tanks that may have leaked, and when the  
6 tank was removed, that would be the logical time for characterization.

7 So my suggestion would be to just maybe loosen up those  
8 words.

9 ORLANDO: Where, exactly, are you talking about?

10 SEXTON: I'm on page 5 of 10 in my revision, and it's --

11 ORLANDO: Third to the last bullet?

12 SEXTON: Yes. And the second comment is on the next bullet  
13 down, and that it talks about justification of ratios, and ultimately  
14 those ratios become the basis of what I'll call your operational DCGL.

15 My only comment would be that as your proceed through the  
16 decommissioning or decontamination process, it's very likely that those  
17 ratios could change, and therefore probably the more appropriate time  
18 for determining those types of ratios is during the remedial action  
19 process, the survey there, as opposed to in all cases it being defined  
20 at the characterization stage of your process.

21 ORLANDO: It's been my experience that normally a process  
22 that works is to establish what you think the ratios are, early on. And  
23 then build into the decommissioning plan, a confirmatory or scaling  
24 factor confirmation plan.

25 You're correct that as you go through, it may very well be  
that you have some assumptions that you're making based decay and  
transport in the environment or whatever, of what the ratios of  
radionuclides are going to be.

And if you're looking for something that's difficult to see  
in the field based on something that's easy to see in the field, there

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1 needs to be some mechanism to go back and make sure that you are using  
2 the right scaling factors or ratios.

3 But that is something that you'd want to build that into the  
4 plant. In any case, you'd have to have some assumptions at the get-go,  
5 and my suggestion would be that -- when I would discuss this with the  
6 licensee, is, tell me what you think they are now; tell me how you're  
7 going to justify them or demonstrate through the process.

8 Maybe they have to come in a little bit later on and get an  
9 approval for scaling factors for a particular area, and then at the end,  
10 some information to demonstrate that those scaling factors were --  
11 probably unlike the final survey or something, that the scaling factors  
12 were appropriate.

13 SEXTON: Okay.

14 ORLANDO: In answer to your question, no, you don't have to  
15 have all of them in stone at the get-go.

16 SEXTON: Okay.

17 ORLANDO: But you do have to have some idea of what you're  
18 going to use, and then if you feel that there is the potential that  
19 those ratios might not be met in the entire soil column or in this tank  
20 or that tank, a commitment that you're going to go take a look at that  
21 when it's appropriate.

22 SEXTON: Okay.

23 ORLANDO: So, again, the process would be approved.

24 SEXTON: Right, the process. I think that's the point that  
25 this ratio determination to present a process in the license termination  
plan, I think that that would be sufficient if it was a robust process  
for determining those ratios.

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ORLANDO: As long as the ratios are provided to the staff so  
that we can take a look at them.

SEXTON: Certainly, certainly.

1           ORLANDO: That would be a suggestion we would have to take  
2 into consideration, so I'm not approving anything right here, but in the  
3 past, we've done that.

4           SEXTON: Last comment was on page 7 of 10, and this had to  
5 do with inscription of background reference areas and material. I think  
6 that's appropriate, to provide a description.

7           The only point I would make is that as you proceed with the  
8 implementation of your final status survey, frequently you encounter  
9 different and varying materials, so that, again, what I would expect to  
10 be contained in the license termination plan is an example of our  
11 typical backgrounds, a process to describe how we would assess  
12 background, and then as we proceeded through the license termination  
13 survey process, if we came across a different and unique material, that  
14 we would just use those processes described in the license termination  
15 plan to assess the background.

16           ORLANDO: And in some of the other comments we had on the  
17 DG, people said the same thing, and also said maybe we just want to use  
18 zero, if that -- if you can meet your DCGL using zero as background, you  
19 know, then that's just a process for allowing that to happen, too.

20           In a lot of cases, that's easier, especially if you're  
21 dealing with material where you have remediated it. Why do, you know --  
22 why go through all the background determinations when you're already  
23 there? I've had some licensees do that, too.

24           CULBERSON: Dave Culberson. Two comments: On page 2, and  
25 again in Section 14.5, it speaks to the final status survey as if this  
is a completed item, and action. The staff will review the final set of  
survey to determine whether the survey demonstrates that the site and  
the area meet the criteria.

          And in 14.5 it discusses what needs to be in that so that  
that review can be completed. I'm thinking that this is not something

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1 that is included in the decommissioning plan; that's --

2 ORLANDO: This is to give some guidance to the licensee in  
3 thinking about. In fact, when I actually had some folks from Oak Ridge  
4 and Steve McGuire write this section, one of the things they wanted to  
5 be able to do was -- so much of what -- you know, the MARSSIM approach  
6 is a total kind of an approach.

7 And so you have to know a little bit about the final  
8 surveys, or what you're planning for your final surveys, as you're going  
9 through the process. In fact, in the front, we acknowledge that you're  
10 not even going to be able to submit some of the information on a final  
11 survey prior to three-quarters of the way through the process in some  
12 cases, number of sample points and things like that.

13 CULBERSON: But that is the design, as opposed to the  
14 results. I think, if I read this right, it speaks in terms of the  
15 results are adequate to determine that you effectively met the criteria,  
16 et cetera.

17 ORLANDO: Right.

18 CULBERSON: And there is a section on the survey design  
19 which I think is appropriate at the decommissioning plan stage, but  
20 these others, I wasn't sure were appropriate at this point in the  
21 process, the overall process.

22 ORLANDO: Don't forget that the regulation -- well, actually  
23 what it says is that the description of the planned final status survey.  
24 You say a description of how you're going to do it.

25 CULBERSON: Yes.

ORLANDO: Obviously, you can't send in the final survey  
before you've gotten your decommissioning plan approved.

CULBERSON: Okay.

ORLANDO: But it's just a description of -- the commitment  
that we're looking for here is that this is the information that you

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1 will submit.

2 CULBERSON: Okay.

3 ORLANDO: This was incorporated so that the staff could say  
4 we understand that this is what the licensee is going to send in at the  
5 end. Maybe the way it's crafted is a little vague.

6 CULBERSON: Okay. Maybe that could be combined with the  
7 survey design then, as the output. I understand what you're saying,  
8 though.

9 Second point: Section 14.1 is the discussion of the DCGL's  
10 release criteria. My impression is that that is a major issue, and this  
11 section may not quite do justice to that as an issue.

12 ORLANDO: The submission of the DCGL?

13 CULBERSON: No, the methodology for arriving at that, and  
14 what goes into deriving DCGLs if you're going site-specific; that that  
15 whole process is significant enough that it may warrant some additional  
16 guidance, both to the licensees that use this and the reviewers as to  
17 alternative DCGLs and how you get to those acceptable methods.

18 So I'm thinking this probably could be expanded even further  
19 to --

20 ORLANDO: If you could point out what is specifically -- try  
21 to point the reviewer to the appropriate parts of MARSSIM.

22 DUVALL: 15.49.

23 ORLANDO: But if you could provide some specifics as to what  
24 you'd like to see included in there, that would be something that we  
25 could consider.

DUVALL: Also 15.49.

ORLANDO: That was Ken Duvall and he said that 15.49 also  
includes that information.

MORTON: Henry Morton. Isn't the clarification with respect  
to the final status surveys that in the intent or the spirit of a

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1 decommissioning plan, that one would submit a plan for designing  
2 surveys, but would not submit the designed survey for each of the survey  
3 units, and would not, of course, submit the survey results since you  
4 will not have the opportunity to either design the surveys, nor to have  
5 done the surveys at that stage?

6 ORLANDO: Correct, but the regulation states that one of the  
7 things that needs to be included in the decommissioning plan, says a  
8 description of the plan, final radiation survey.

9 One of the things that -- and the reason that we put this in  
10 here is that so that you'd have some idea of what we would be looking  
11 for in the final survey.

12 MORTON: And can that be interpreted as the method for  
13 designing the surveys?

14 ORLANDO: I'm going to have to check with the experts on  
15 that, so I can't answer you yes or no.

16 MORTON: You really may need information from the  
17 remediation surveys.

18 ORLANDO: Well, that's discussed further up.

19 MORTON: Yes.

20 ORLANDO: About the survey design and not only the scoping  
21 survey but the -- it talks about what we'd expect to see as a  
22 description of the in-process surveys.

23 MORTON: Yes.

24 ORLANDO: All of that all rolls in, and the reason, like I  
25 said, we put the final status survey review stuff in here is because  
there is a requirement to have that in the decommissioning plan. But  
all of those things are all folded into the final survey, or the  
information that you get from those surveys is included in the final  
survey.

Clearly, you don't -- well, I'll let it go at that.

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1 GOLDIN: I have just one quick suggestion: Maybe it would  
2 be useful to include some guidelines or whatever on what kind of process  
3 could be used for partial release in the site.

4 ORLANDO: Okay. I think that is a global type issue, and  
5 I'm not sure if it's going to be in there, but clearly we recognize that  
6 partial site release is something we hadn't thought about.

7 We have some thinking about it to do. That's going to  
8 happen in a lot of different venues, I think. But once we determine how  
9 all of that is going to hang together, we'll probably have to include  
10 that in some guidance somewhere. I'm not sure if it's going to end up  
11 here, because I'm not sure if the issue is going to be vetted and  
12 resolved by the time this needs to be published.

13 But at some point, yes, there is going to need to be  
14 something on partial site release from -- it could be cutting across  
15 every one of these modules.

16 GENOA: Paul Genoa, NEI. Maybe just to carry that thread  
17 just a little further, even if the resolution -- even if you don't come  
18 to the resolution in the near term of the actual mechanism to allow  
19 partial site release and termination of that portio of the site's  
20 license, at minimum, certain aspects.

21 It would be nice to have the guidance to know what  
22 documentation will be necessary to document that a final status survey  
23 has been done, perhaps even the confirmatory measurements have been made  
24 by the NRC, and here are the steps we're going to take to document that,  
25 and here are the steps we're going to take to ensure that it doesn't  
recontaminate it or whatever, so that when you finally get around to  
addressing it, it's still valid.

ORLANDO: Okay. So you're saying to put that in here, or  
just find the appropriate place and make sure that that is totally --  
that that information is laid out clearly or whatever?

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1 GENOA: Yes.

2 ORLANDO: I'm not sure that it's going to get into here,  
3 because I'm not sure we're going to be at that point in July, but we'll  
4 see. More on surveys?

5 [No response.]

6 ORLANDO: No more on surveys, okay. Everybody's favorite  
7 topic, financial assurance for decommissioning, any thoughts or comments  
8 on that module?

9 And, yes, we are now -- officially, it's 2:30, and I suggest  
10 we just keep going. I'll reconvene tomorrow and, as I said earlier, if  
11 anybody wants to come back and re-say the same thing, that's fine, but I  
12 have a Federal Register and an agenda out there that pretty much locks  
13 me into doing this again tomorrow, but if anybody has any questions or  
14 comments now and would prefer not to come back tomorrow, that's fine,  
15 we'll take them.

16 ZINKE: George Zinke, Maine Yankee. One more of what I call  
17 a minor comment: For a Part 72 licensee that happens to be an electric  
18 utility, my understanding of the regs is that it ties you back into  
19 50.75, which then has some different financial assurance mechanisms than  
20 the one listed in here.

21 Just for completion, since you may want to consider putting  
22 that in there, since that's what, in fact, would have to be reviewed.

23 ORLANDO: Okay, thank you. Anyone else on financial  
24 assurance?

25 GOODMAN: I have a comment. Lynn Goodman, Fermi I.

Just to clarify that these are different criteria than we do  
have to meet in 10 CFR 50 for power reactors, and so I think we're going  
to have to meet those instead of these.

ORLANDO: If these are not specific to Part 50 licenses,  
yes, you'll have to follow what's in 50. Remember that NUREG 1700 may

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1 not reference this section and it may contain its own guidance on  
2 financial assurance.

3 FORD: Brian Ford, Millstone I. You might want to also  
4 consider that some of the specific -- of what you can take credit for  
5 and not take credit for, really seems kind of stringent, things like you  
6 can't account for scrap, you can't account for -- you might want to  
7 consider some of those.

8 ORLANDO: We will consider them.

9 GOODMAN: Lynn Goodman, Fermi I. Along those lines, also  
10 regarding the item on the limitations to withdrawing more than ten  
11 percent of the remaining funds also seem rather stringent to me for a  
12 materials license.

13 ORLANDO: Okay. Again, that is, we will consider. That was  
14 not an acknowledgement or a condemnation. Okay, thank you. Remember,  
15 all this is going to be transcribed, so I want to make it very clear  
16 that I just didn't say, oh, yeah, we're going to do that.

17 [Laughter.]

18 ORLANDO: Anyone else on financial assurance?

19 [No response.]

20 ORLANDO: Okay, restricted use and alternate criteria, does  
21 anybody have any comments on that section of the Standard Review Plan?

22 GENOA: Paul Genoa, NEI. We thought this one wasn't too  
23 bad.

24 [Laughter.]

25 ORLANDO: What was it he said, none of you guys are going to  
go for this? This one, I thought, would cause the most discussions, but  
I guess it's either perfectly clear, perfectly reasonable, or perfectly  
unintelligible.

[Laughter.]

ALLARD: Dave Allard, Pennsylvania DEP. I guess the

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1 question is this issue of third parties for institutional controls. Has  
2 anybody done this yet?

3 Then, you know, what sort of mechanisms? We're looking at  
4 probably one or two of these up in Pennsylvania, and the local  
5 government and how that's going to be done, and legal enforceability.

6 I'm not an attorney, but this is going to be a really  
7 complicated issue.

8 ORLANDO: Yes, it is. The whole institutional control area,  
9 one of the things that I'm involved in right now, is in another work  
10 group in NRC to try and take a look at this.

11 Even though there is guidance in DG4006 and in here, I'm not  
12 sure that this even goes far enough. It may very well be that we've got  
13 to look -- I mean, just the idea of the different -- there are 56  
14 different political entities in the United States, I think.

15 There are probably 56 different methodologies for a local  
16 government to enforce things. And we may have to take a look at every  
17 one of those.

18 This is a very, very tough issue, and I think the first  
19 couple ones we go through are going to be very instructive as to how the  
20 rest of them work.

21 ALLARD: There are issues of liability and what's the  
22 liability of this third party, and is it going to be the limit of the  
23 pot of money.

24 ORLANDO: There are certain situations where state laws  
25 prohibit a state authority from assuming responsibility for a site,  
conceivably one of these types of sites. There are all kinds of issues  
associated with it.

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I think this one is going to end up being written, or at  
least augmented by some more detailed type guidance. In fact, one of  
the things we're going to try and do is get that out and in this. I

1 think we're going to also try and get it out into the public view before  
2 we do it.

3 But we haven't firmed all of that up yet, so that's not a  
4 commitment, but other than that we do feel that there is more guidance  
5 needed.

6 ALLARD: So you are looking at this thing?

7 ORLANDO: Yes we are; we're looking at what DOE is doing,  
8 what EPA is doing, what IAEA is doing. It's a -- for one little section  
9 in the regulations, this certainly has a lot of work.

10 ALLARD: I know in the UMTRA, the UMTRA would be one area to  
11 look at, the Fernald Model, whatever was used out in Fernald.

12 GENOA: Paul Genoa with NEI. I concur that there are  
13 precedents out there that we could look at, and I understand that EPA  
14 even has a website address that, you know, lists various types of  
15 institutional control mechanisms that have been applied or that have  
16 been considered.

17 You know, I just think we should encourage, you know, a look  
18 at those. Radiation is just one type of hazardous material that could  
19 be in the environment, and we don't have to reinvent the wheel.

20 ORLANDO: We are going to take a look at all of those. Yes,  
21 Lynn?

22 GOODMAN: Lynn Goodman, Fermi I. Just a real minor item: I  
23 wasn't able to find Footnote 2 in my copy. It's referred to a couple of  
24 times.

25 ORLANDO: Page 5. It has to do with the durability of  
institutional controls.

GOODMAN: It just must not have come out on my copy.

ORLANDO: Sorry about that. I hope, well, we can take a  
& little --

GOODMAN: And I will say that that was kind of typical

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1 throughout, that typically the footnotes, that when I printed them out,  
2 I didn't get to any footnotes.

3 ORLANDO: I wonder if that was a function of the file that  
4 was on the computer. You got them from the website?

5 GOODMAN: Yes.

6 ORLANDO: Did you print them directly from the website? I  
7 know that sometimes if you print something directly from an electronic  
8 format, the footnotes won't accompany it. You have to save the file and  
9 then print it.

10 GOODMAN: Okay, I'm not sure on this one, since someone  
11 printed it for me.

12 ORLANDO: Okay. I know that in our particular LAN system,  
13 if you don't -- if you print it directly from the LAN, the footnotes  
14 won't accompany it. You've got to save it and then print it. That may  
15 be a function of that.

16 Anyone else?

17 [No response.]

18 ORLANDO: Okay, it's 2:45. We have gone through with  
19 everybody here, all of the modules, and we have all of your comments.  
20 They will be transcribed, and we will also put the transcripts of this  
21 meeting on the website.

22 If -- yes, sir?

23 ALLARD: Nick, just backing up just a second, back to the  
24 health and safety program section, I'm not sure what the answer is to  
25 this, but having spent some eight years in DOE oversight and looking at  
all the industrial hazards out there in welding and contamination  
control and electrocutions and that sort of thing, I'm wondering if it's  
worth at least some sort of a checklist.

I know this gets into OSHA and other health and safety regs,  
but somehow those sort of things are considered in the heat stress.

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1 ORLANDO: In a decommissioning plan?

2 ALLARD: Right.

3 ORLANDO: I'm not sure we have -- the only problem I see  
4 with including too much of that kind of information is that one could  
5 assume that we are approving something like that in the DP, and the  
6 problem is that we don't have the regulatory authority for that.

7 ALLARD: Right.

8 ORLANDO: Perhaps the best we can do is a commitment by the  
9 licensee -- and even this may be a stretch -- to ensure that they comply  
10 with all other applicable state, federal, and local regulations, which  
11 is, in a lot of cases, a tie-down condition in licenses anyway.

12 ALLARD: Right.

13 ORLANDO: It already exists in Part 61 as a general  
14 requirement, so I think there is an implicit requirement or an implicit  
15 expectation in Part 20 that you'll comply with everybody else's  
16 requirements, to. But often in dealing with licensees, what I have  
17 ended up having to do when there is a situation where you've got, say,  
18 mixed waste or something, we'll send them back a letter that says this  
19 is okay from our perspective, however, if you have to go get all of the  
20 applicable other of your -- meet all of the other regulatory  
21 authorities' applicable rules and regulations, and that this approval  
22 only pertains to the radionuclides.

23 ALLARD: My comment is just that often these kinds of  
24 hazards are the bigger hazards on these projects.

25 GENOA: Paul Genoa with NEI. Just to sort of tag onto that  
thought, there is an area, I think, certainly -- there may be multiple  
places where that kind of issue could be raised as a qualifying  
statement. Hey, don't forget to pay attention to these things.

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But in the ALARA area, it could be more direct than that.  
In fact, the optimization of the ALARA approach should include, in my

1 opinion, all of those industrial safety issues. The radiological hazard  
2 is one element, the heat stress hazard is another, the fall hazard is  
3 another, the silicosis hazard is another. You know there is a range of  
4 them.

5 And we're spending significant energy in the industry to  
6 keep our people safe. That's real important. There has to be an  
7 optimization there with getting every atom of radioactive material out.

8 ORLANDO: I think I agree with you, Paul, but I think what  
9 Dave was referring to is just some kind of commitment in the  
10 decommissioning plan to comply with other regulatory authority  
11 requirements. I think what you're talking about is the balancing  
12 between the radiation hazard and the other hazards, which, in some  
13 cases, are orders of magnitude higher than the potential harm that could  
14 come to a worker from radioactivity in a particular area.

15 Anybody else, anything else? Yes, sir? John Karhnaak.

16 KARHNAK: Nick made a very interesting point this morning  
17 when he said that in his experience, the way some of these things work  
18 the best is when everybody comes together at the beginning and makes  
19 sure that things happen, and everybody knows what's going on.

20 You've probably heard a lot of opinions about what EPA is  
21 doing in terms of D&D of some of these facilities. I simply want to  
22 tell you that our aim and our attempt and our goal is to make sure that  
23 all these pieces come together, just as Nick described, so that when the  
24 non-radiological parts and parts that NRC is not responsible for are  
25 brought up and covered at the same time.

My position with EPA right now is to make sure that some of  
these things are coordinated so that we are some value-added to this  
process, and not a hindrance. I'd be glad to give you a card with my  
phone number, if you'd like to get a hold of me.

ORLANDO: Thank you, John.

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1           TARZIA: Jay Tarzia, Radiation Safety and Control Services.  
2       There was a lot of talk here today, and I think we clarified a lot of  
3       issues about how this SRP applies to a large, broad band of licensees.

4           I was just curious: Seeing as how half, if not more than  
5       half of the licensees are under agreement state status, you know, the  
6       agreement states have a compatibility rule that requires them to have,  
7       you know, rule compatible with 10 CFR 20, Part E, but there is no  
8       compatibility issue to require them to have a Standard Review Plan, as  
9       far as I know.

10           Are you going to be encouraging agreement states to have  
11       decommissioning plans for their licensees as well?

12           ORLANDO: Do you mean Standard Review Plans?

13           TARZIA: Or to have --

14           ORLANDO: They would have to have a decommissioning plan,  
15       the licensee. My understanding is that -- well, first of all,  
16       decommissioning plans are not addressed under Part 20; they're addressed  
17       under the licensing regulations, 30, 40, 70, 72. So I'm not sure.

18           I'm not sure of the compatibility -- what's the word I'm  
19       looking for? Categorization of those regulations. If they have  
20       decommissioning plan requirements in the state regulations, I think the  
21       states could use these -- this Standard Review Plan --

22           TARZIA: This format.

23           ORLANDO: -- to meet those requirements. As far as the  
24       strict requirement for a state to use this, I'm not -- I don't work in  
25       that area, so I'm not real cognizant of it. I think that one of the  
      things we might want to do is clarify that.

          TARZIA: Yes, I think it might be good. My company deals  
ADN with small licensees in agreement states, and there's a lot of  
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ASS differences between the states that we see in how they develop even  
OCI release criteria for decommissioning. And some guidance from the NRC,  
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1 even if it's just informative guidance to the states, I think would be a  
2 help, even if it's a presentation, maybe, to the Radiation Control  
3 Directors during one of their annual meetings on this process, to drive  
4 a little bit more consistency between the states as to how they  
5 decommission, might be helpful for them.

6 ORLANDO: We did have the states -- we had the CRCPD in last  
7 workshop, where we actually had five members of the agreement states and  
8 -- actually, this was CRCPD, because Pennsylvania was there, Maine, New  
9 Jersey, Colorado, Oregon, and I think there was one other, Connecticut,  
10 maybe.

11 They all came, and discussed their issues with the Standard  
12 Review Plan. And if memory serves me, I believe that the New Jersey  
13 representative indicated that they were just going to adopt this when it  
14 was completed, and say, well, if we're going to adopt Part 20, verbatim,  
15 we're going to adopt the applicable portions of this to Part 20,  
16 verbatim.

17 So, you know, this would be a model that the states could  
18 use.

19 Yes, sir, John?

20 KAHRNAK: John Kahrnak. Nick, you may not be aware that the  
21 CRCPD at their annual meeting coming up this year, has a session on D&D,  
22 and that may be a factor to bring into it in the discussion.

23 ORLANDO: Yes, I was aware that they were having that.  
24 That's in March?

25 KAHRNAK: May.

ORLANDO: Something like that. Dave?

CULBERSON: Dave Culberson, different subject. Could you  
ADN help us understand where this information is posted? I had difficulty  
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ASS finding the agenda for the meeting, and the SRP. Not until I talked to  
OCI you was I able to find it.  
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1           It wasn't in the place I would have normally looked for the  
2 meetings and workshop agendas.

3           ORLANDO: Well, we've got one more to go, and you know the  
4 date of that. In any case, the best thing to do is to go to the NRC,  
5 [www.nrc.gov](http://www.nrc.gov), go to the Radioactive Waste icon. It's the little truck.  
6 Click on that and that will get you into the Division of Waste  
7 Management Page, which is uranium recovery, low-level waste, and down at  
8 the bottom, it says nuclear facilities decommissioning. Click on there  
9 that will take you to a little writeup description of what my branch  
10 does.

11           Down at the bottom it has -- and it says special projects,  
12 and under there, it listed all of the products we've got out there right  
13 now. The transcripts of these meetings are there, the transcripts of  
14 the clearance rule workshops and meetings are there.

15           There is a hyperlink that says Standard Review Plan for  
16 Decommissioning. Click on that and that will take you to the Lawrence  
17 Livermore site that has been managing all this.

18           The modules are under Standard Review Plan, and the public  
19 meetings, the announcements, the agendas and whatnot are under the  
20 public meetings banner.

21           KAHRNAK: Thank you.

22           ORLANDO: Yes, this is our streamlined and cleaned up  
23 process.

24           [Laughter.]

25           ORLANDO: It used to be when you had to go to [bin.topics](http://bin.topics) and  
type it in directly, that was -- it took me a few months to get it all  
hyperlinked together so at least you can get to [www.nrc.gov](http://www.nrc.gov) and you're  
50 percent of the way there at that point. You've only got eight more  
clicks to go. It used to be that it took you about 12 clicks.

          Okay, as I said earlier right after lunch, I have a Federal

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1 Register Notice and an agenda that's in the public that I want to try  
2 and stick to, so tomorrow morning, I will reconvene at 8:30 here.

3 Anybody who is here that would like to come back and talk,  
4 we welcome you. Anybody who is not here that will be showing up to  
5 discuss financial assurance or restricted use, we'll take their comments  
6 at that point.

7 We'll also open the floor up at that point for an open  
8 discussion of any issues, decommissioning, and then Bobby and Mark will  
9 present some technical information, criteria for establishing conceptual  
10 models, and treatment of uncertainty in dose assessments.

11 If anybody here would prefer not to return tomorrow, if  
12 you'll leave me your card and just put Friday Session on the back, I'll  
13 get Mark and Bobby's handouts and send them to you.

14 We finished up significantly faster than what I had  
15 expected, but there are some folks that may be coming in only tomorrow  
16 to say -- only to comment on these two sections. So I have to afford  
17 them the opportunity to do that. That said, I want to thank everybody.

18 [Whereupon, at 2:58 p.m., the workshop was recessed, to be  
19 reconvene at 8:30 a.m., on Friday, February 18, 2000.]  
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