

Official Transcript of Proceedings

NUCLEAR REGULATORY COMMISSION

Title: Advisory Committee on Reactor Safeguards
500th Meeting

Docket Number: (not applicable)

Location: Rockville, Maryland

Date: Friday, March 7, 2003

Work Order No.: NRC-814

Pages 353-478

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UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

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ADVISORY COMMITTEE ON REACTOR SAFEGUARDS

500th ACRS MEETING

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FRIDAY, MARCH 7, 2003

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The meeting came to order at 8:30 a.m. in room T2B4 of Two White Flint North, Rockville, Maryland, Mario V. Bonaca, Chairman, presiding.

PRESENT:

MARIO V. BONACA	ACRS Chairman
GRAHAM B. WALLIS	ACRS Vice-Chairman
GEORGE E. APOSTOLAKIS	ACRS Member
F. PETER FORD	ACRS Member
GRAHAM M. LEITCH	ACRS Member
VICTOR H. RANSOM	ACRS Member-at-Large
THOMAS S. KRESS	ACRS
DANA A. POWERS	ACRS
WILLIAM J. SHACK	ACRS
JOHN D. SIEBER	ACRS

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1 STAFF PRESENT:

2

3 JOHN T. LARKINS Executive Director, ACRS/ACNW

4 MEDHAT EL-ZEFTAWY ACRS Staff

5 SAM DURAISWAMI ACRS/ACNW

6 SHER BAHADUR ACRS/ACNW

7 HOWARD J. LARSON Special Assistant, ACRS/ACNW

8 RONALDO JENKINS Early Site Permit Project
9 Manager10 MICHAEL SCOTT Early Site Permit Project
11 Manager

12 WILLIAM BURTON Project Manager

13 RANI FRANOVICH Senior Materials Engineer

14 PT KUO Project Director, License
15 Renewal**NEAL R. GROSS**COURT REPORTERS AND TRANSCRIBERS
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P-R-O-C-E-E-D-I-N-G-S

8:35 a.m.

CHAIRMAN BONACA: Good morning. The meeting will now come to order. This is the second day of the 500th meeting of the Advisory Committee on Reactor Safeguards. During today's meeting, the committee will consider the following: Early site permitting process, overview of the format and content of the Fort Calhoun license renewal application, future ACRS activities, report of the Planning and Procedures Committee, reconciliation of ACRS comments and recommendations, preparation for meeting with the NRC commissioners and propose the CRS reports.

This meeting is being conducted in accordance with the provisions of the Federal Advisory Committee Act. Mr. Sam Duraiswamy is the designated federal official for the initial portion of the meeting. We have received no written comments or requests for time to make oral statements from members of the public regarding today's session. A transcript of all portions of the meeting is being kept, and it is requested that the speakers use one of the microphones, identify themselves and speak with sufficient clarity and volume so that they can be readily heard.

At this point, we will move to the first

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1 item on the agenda, the early site permit process, and
2 Dr. Kress will take us through this presentation.

3 MEMBER KRESS: Thank you, Mr. Chairman.
4 As you know, there are at least three pending
5 applications for early site permits coming up in the
6 near future, I think June is the first one -- first
7 two. And since the ACRS has had its ore in the water
8 on siting issues for a long time, I thought it would
9 be a good idea for us to at least know what the
10 process is that's playing for early site permitting
11 and to start getting up to speed on it a little bit.

12 One of the concepts that has been put
13 forward on early site permitting has to do with the
14 NEI I think has proposed a plant parameter envelope.
15 And to kind of give you an idea of what that is, I had
16 Ned place in front of you a table that was extracted
17 from one of the NEI documents that gives you an idea
18 of what they had in mind of what a plant parameter
19 envelope might consist of. And I don't know what it
20 looks like -- it's under Tab 8, I guess, of your book.

21 So I think we probably have a letter on
22 this.

23 MR. JENKINS: Right. We have some extra
24 copies if you want to pass them around.

25 MEMBER KRESS: Okay, yes. Okay. So with

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1 that, I'll turn it over to the staff. Did you want to
2 say some words, Jerry, before --

3 MR. WILSON: No. We'll have Mr. Jenkins
4 make the presentation today for the New Reactor
5 Licensing Project Office.

6 MEMBER KRESS: Thank you.

7 MR. JENKINS: Good morning. My name is
8 Renaldo Jenkins, and I am an Early Site Permit Project
9 Manager. On the speaker phone is Michael Scott who is
10 my partner in terms of looking at site permit review
11 standard.

12 The first slide -- go onto the next slide.
13 Our purpose here is to brief the Commission -- excuse
14 me, brief the Committee on the status of activities
15 leading up to receipt of the first three ESP
16 applications, to brief the Committee on the contents
17 of the draft ESP review standard, to discuss future
18 milestones for the ESP review standard document
19 development and use and to address any questions or
20 comments that you might have either on the process or
21 the early site permit review standard. Next slide.

22 This is what we see as the agenda going
23 through looking at the ESP issues and planned
24 activities, the review standard document development
25 approach, the document content and also plans for

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1 future development and use of the ESP standard. Next
2 slide.

3 The staff has been engaged with the
4 Nuclear Energy Institute, NEI, and the potential
5 applicants to facilitate the resolution of issues that
6 have been raised prior to the submittal of these
7 applications. The staff has, in the course of this
8 past year, sent letters to the NEI to document the
9 staff's position on these issues, and we plan to
10 develop a SECY paper to communicate to the Commission
11 our positions with respect to ESP issues. We had our
12 last meeting on Wednesday of this week, and there are
13 no additional ESP generic meetings planned with NEI
14 before the applications are going to be submitted.
15 However, we do plan to deal with any emerging issues
16 that might come up raised by the applicants on a case-
17 by-case basis. Next slide.

18 MEMBER KRESS: Are there issues now that
19 you still are no in agreement on with the NEI?

20 MR. JENKINS: We're in the course of
21 waiting for letters from NEI on certain positions that
22 we met with them on, and once we get those letters
23 then we can develop our response. Our process is just
24 to listen to what they have to say and then give the
25 staff's view on those issues. So it's not really a

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1 question of a disagreement. We have put out the
2 review standard to outline what the review guidance
3 would be for an ESP application.

4 MEMBER KRESS: Has that standard gone out
5 for public comment?

6 MR. JENKINS: Yes, it has. That was
7 December of last year. And the public comment period
8 is due to close at the end of this month.

9 MEMBER LEITCH: Renaldo, one of the things
10 is this early site permit is still neutral or silent,
11 I suppose, as far as the type of reactor that could be
12 built on that site; is that right?

13 MR. JENKINS: The current regulations
14 basically indicate that an applicant should provide
15 information regarding the type of reactor.

16 MEMBER LEITCH: Oh, that's different, I
17 think, from the last time we discussed this.

18 MR. JENKINS: No, no. The language is it
19 should and so it's not a requirement.

20 MEMBER LEITCH: Oh, it should. Okay.
21 Okay. Okay.

22 MR. JENKINS: And matter of fact, that's
23 -- industry has proposed that it be neutral, as you
24 say, that the type of plant. And that's really part
25 of the discussion we've had, one of the issues we've

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1 had with them on the PPE approach.

2 MEMBER KRESS: That goes to your second
3 bullet.

4 MR. JENKINS: Right. The next couple of
5 slides basically deal with the generic issues that
6 we've been talking with NEI on. The first one, the
7 staff position on QA. The staff expects that ESP
8 applicants will use the applicable QA controls
9 equivalent to those in Part 50 Appendix B for ESP
10 activities that would affect the design of future
11 safety-related systems, structures and components or
12 SSCs.

13 The QA requirement is really on the staff,
14 it's not on the applicant, because the contents of the
15 application regulation doesn't specify that the
16 applicant has to have an Appendix B Program. However,
17 we have indicated to them that this is our review
18 standard, that where site safety information is
19 equivalent what would be in an Appendix B space, that
20 we will use Appendix B guidance as a review criteria.

21 The next bullet, the plant parameter
22 envelope, or PPE, we basically agreed with the
23 industry that this could be used as a surrogate in
24 lieu of specific design information. The next bullet
25 --

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1 MEMBER LEITCH: That's the question that
2 I have, a number of aspects about that. Do they have
3 to specify how many reactors are potentially going to
4 be built on this site -- one, ten?

5 MR. JENKINS: Well, in the content of the
6 application, it talks about the number of units.

7 MEMBER LEITCH: Is that also a "should,"
8 though? It might not happen?

9 MR. JENKINS: That's also -- yes, I think
10 that's also a should. That's under the information
11 that's to be provided. But it would be very hard for
12 the staff to proceed forward without knowing that
13 information.

14 MEMBER LEITCH: I would think so, yes.
15 Also, do they specify a megawatt thermal capacity at
16 the site?

17 MR. JENKINS: Yes. That's also in the --
18 under that broad category of shoulds.

19 MEMBER KRESS: Both those are items that
20 are in the plant parameter envelope, I think, aren't
21 they?

22 MEMBER LEITCH: Well, yes. I believe
23 that's part of the NEI worksheet.

24 MEMBER KRESS: Maybe you're going to talk
25 about this later, but are you looking at sites that

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1 already have been approved and have a plant on it
2 differently from a site that's just a new site and
3 doesn't have a plant on it and has not been previously
4 approved? Are those two types of sites viewed
5 differently in this context?

6 MR. JENKINS: Well, in the review standard
7 we take the approach that there's not an existing
8 site. Essentially, all the information would be for
9 greenfield --

10 MEMBER KRESS: You're saying that would
11 certainly capture an existing site.

12 MR. JENKINS: Right. It really -- it
13 captures both.

14 MEMBER KRESS: Well, my question, I guess,
15 is is that too much to ask for a site that already has
16 been approved and --

17 MR. JENKINS: Well, the three applicants,
18 Grand Gulf, Clinton and North Anna, the sites that
19 you're talking about and the utilities that are
20 represented there, Entergy, Exelon and Dominion, they
21 are proposing a site approval, which is different than
22 the construction and operating license for the
23 existing facility there. That's a different licensing
24 process.

25 One of the differences during the

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1 construction permit process the applicant had to
2 specify a design for the plant and also a given
3 footprint, and that was the approval for that
4 particular facility. In this case, we're talking
5 about approval of a site for non a specific design; in
6 other words, a design that's not specified prior to
7 any site approval.

8 To answer your broader question, we expect
9 that the applicants that are pending before us will
10 use existing information that's applicable.

11 MEMBER KRESS: Just bring it together.

12 MR. JENKINS: Just bring it together.
13 They have the task of demonstrating that that
14 information is applicable and relevant to this new
15 site. When we went to Grand Gulf, the footprint for
16 the new facility is in a different location, and it's
17 different also than the construction permit that might
18 have been approved there.

19 MEMBER KRESS: The distant to the site
20 boundary may have changed.

21 MR. JENKINS: Right.

22 MEMBER KRESS: And the underlying ground
23 structure may be different?

24 MR. JENKINS: Well, during the site visit
25 we were observing their seismic investigation, and the

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1 purpose of the seismic investigation was to confirm
2 that the geological and geophysical properties for the
3 new footprint would be the same, and therefore they
4 could use that existing information, as found in the
5 FSAR 4, in this case Grand Gulf.

6 MEMBER KRESS: Is that kind of thing laid
7 out in the standard that a review should consist of a
8 site visit to validate those things?

9 MR. JENKINS: Well, we have indicated in
10 our response to NEI in terms of a pre-application that
11 arrangements should be made for a voluntary visit of
12 the staff. Now, of course, during the actual review,
13 site visits will probably be necessary.

14 Okay. As the next bullet indicates, there
15 was an issue regarding duration of the ESP that the --

16 MEMBER KRESS: The duration means the time
17 the site is approved till it's no longer -- that's the
18 amount of time they have to build a plant there?

19 MR. JENKINS: No. The duration here is
20 the duration of the site approval. The regulations
21 specify from ten to 20 years, and so the permit that
22 the applicant receives is site approval that they can
23 reference in a COL or use I believe in a construction
24 permit.

25 MEMBER KRESS: So the applicant decides on

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1 how long he wants and puts it in his application?

2 MR. JENKINS: Right. The overriding
3 purpose of the ESP is to allow the applicant to bank
4 -- that's the term that's used -- to have the site
5 approval that they can use for whatever purpose that
6 they would. Presumably, the next step would be to
7 make plans for a future facility, but that depends on
8 a lot of different variables.

9 MEMBER KRESS: When they -- let's say they
10 want to think about this site and get it approved for
11 20 years and when you start doing things like safety
12 evaluations and environmental impacts, do they have to
13 project 20 years into the future and things like that
14 to decide what the areas going to be like, the
15 population and things?

16 MR. JENKINS: Right. That's really the
17 heart of the permit is that the information provided
18 has to cover the range of the requested duration that
19 they are looking for. At the last meeting we had, NEI
20 indicated that the applicants are actually looking
21 over a 60-year period to include the 40 years
22 associated with a COL.

23 MEMBER KRESS: I presume that the site
24 that's already got a plant on it has things like --
25 already has the wind rows over a year's time period

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1 and has the radiation monitoring --

2 MR. JENKINS: Right. Right.

3 MEMBER KRESS: -- on the other site and
4 has emergency plans. Can the applicant just say,
5 "We'll make use of these and that will be our
6 program"? I mean is it as simple -- can they simply
7 say, "We'll just continue doing what's already been
8 done on the site"?

9 MR. JENKINS: I think from a legal point
10 of view they have to provide all of the information
11 assuming that the other site does not -- that the
12 existing site doesn't exist. But they can use that
13 information and refer to it. So if there's an
14 approved NRC document related to this particular
15 matter, they just simply have to show that it is
16 relevant and applicable to this particular
17 application.

18 MEMBER KRESS: Can they do that by
19 reference some way or --

20 MR. JENKINS: I believe they can use it by
21 -- they can but, one again, they have to make the case
22 that it is relevant and applicable. So it depends on
23 the subject matter. You mentioned emergency
24 preparedness. When we talked to them about it, we
25 indicated our expectation that they would make

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1 contacts or arrangements with the local officials and
2 state officials. So there would be presumably at the
3 existing facility arrangements already made, and they
4 would have to simply verify that this would be the
5 case for the new facility or the new site.

6 MEMBER KRESS: Are there any provisions
7 for -- if some organization wanted to pick a site
8 that's already got a plant on it but it's in
9 relatively high population area and maybe the
10 population is changing since that plant has been built
11 or maybe there's different traffic patterns or
12 whatever, are there any provisions for the staff to
13 look at that and say, "No, we don't think this is a
14 good site because either you can't do an emergency
15 response very well now or the population is such that
16 --

17 MR. JENKINS: Well, we would have to look
18 at that. And matter of fact, the review standard does
19 call for the staff to look at population estimates.

20 MEMBER KRESS: But is this just looking to
21 see if these things conform to the current regulations
22 or is there some additional --

23 MR. JENKINS: Well, the site must meet
24 Part 100 requirements, and Part 100 requirements talk
25 about --

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1 MEMBER KRESS: Well, of course it has to
2 meet Part 100, yes.

3 MR. JENKINS: Yes. Part 100 requirements
4 require that population considerations be taken into
5 consideration to granting or saying that this site is
6 suitable.

7 MEMBER KRESS: Let me ask you about that.
8 Part 100 involves dose at the site boundary due to
9 design basis accidents.

10 MR. JENKINS: Right.

11 MEMBER KRESS: Well, here we have -- we
12 don't have a design, we have a plant parameter
13 envelope maybe.

14 MR. JENKINS: Right.

15 MEMBER KRESS: Can it simply be assumed
16 that whatever plant I'm going to build on there,
17 number one, will likely have a safety status that's
18 better than the existing plants or the same. It could
19 be just like the one on there, that's not specified.
20 But it couldn't it be almost assumed that the new
21 plant's going to meet 10 CFR 100?

22 MR. JENKINS: Well, we can't --

23 MEMBER KRESS: We can't make that --

24 MR. JENKINS: We can't really make a leap
25 of faith to assume that that in fact is going to

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1 occur. If we go to the next slide, the ESP applicants
2 must provide radiological dose consequence
3 evaluations, and this is in the regulations. This is
4 10 CFR 50.34(a)(1) that, as Part 52 references, that
5 particular regulation must be met.

6 MEMBER KRESS: This just means they have
7 to specify a source term?

8 MR. JENKINS: Right. The source --
9 there's two components, one being the site
10 characteristic, the X/Q or the atmospheric dispersion.
11 And then there's this design information associated
12 with a postulated release, a large release following
13 an accident. And, of course, you're going to need
14 source term and some type of release history in order
15 to make the evaluation that at the boundary, if we're
16 talking about --

17 MEMBER KRESS: No. What I was thinking is
18 they could say, "Well, we're going to be with X/Q and
19 this source term." They could simply say in their
20 plant parameter envelope that, "We're going to be as
21 good as or better than the current LWR on the site."

22 MR. JENKINS: Right.

23 MEMBER KRESS: And then that could be a
24 commitment in the plant parameter envelope. I mean
25 would that be sufficient just to say, "We're going to

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1 be as good or better," and then there be perhaps at
2 the COL stage when they do have a design or when they
3 do decide on what plant they're going to build there,
4 then they could be validated or verified?

5 MR. JENKINS: Well, the staff has to
6 verify that, and we really can't verify a commitment.
7 We have the dose limit, and you have to see, well, how
8 are you still going to stay within that limit given
9 what you are proposing? And we have a X/Q which is
10 site characteristics. And during the July meeting,
11 the initial position of the Task Force, the NEI Task
12 Force, was to provide a bounding source term as a PPE
13 and bounding release history that would allow
14 presumably the staff to come to that determination.
15 And we're in the process of talking about
16 implementation details. But the requirement has to be
17 met and the staff has to be able to verify that.

18 MEMBER KRESS: Yes. So with the bounding
19 and the source term, they really don't have to -- and
20 they don't have a design -- they don't have to
21 evaluate Chapter 15, design basis accidents; they just
22 say this bounding source term would cover all those?

23 MEMBER SIEBER: I would think that when
24 you got to the operating license stage, you would have
25 to define what the design basis accidents are.

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1 MEMBER KRESS: That's at this stage I'm
2 sure you --

3 MR. JENKINS: Well, the main thing --

4 MEMBER KRESS: Well, you would if it were
5 certain.

6 MEMBER SIEBER: Well, some folks says that
7 maybe the concept of design basis accidents is
8 outmoded. But I don't think it is because you can't
9 do the dose-to-the-public estimate without knowing the
10 response of the plant in the so-called postulated
11 design basis accident.

12 MR. JENKINS: Well, we really will not
13 know what kind of reactor designs that that particular
14 applicant is seeking. They are seeking that if the
15 site parameters -- that the future design meets those
16 parameters, then in fact they get site approval. And
17 so we're operating based on the protocol that we will
18 look at the PPEs in terms of its environmental and
19 safety impacts, assuming that they are in fact true.

20 MEMBER KRESS: My impression of PPEs was
21 that they took various reactor types --

22 MR. JENKINS: Right.

23 MEMBER KRESS: -- like LWRs, LMFBRs, the
24 gas-cooled reactors and so forth and looked at all
25 these characteristic things that you'll need to do an

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1 environmental impact or to design to meet the
2 environmental conditions or safety. And they just
3 took the worst part of each one of these types of
4 reactors and said, "This is our envelope," and
5 therefore they could choose, easily choose any one of
6 those designs because it's covered and it's bounded by
7 the value they chose or they could choose some other
8 design as long as they could show that it's within
9 those bounds.

10 MR. JENKINS: In the PPE worksheet, there
11 is a range of designs, and that's provided for the
12 staff's information. The applicant could -- you could
13 select that from that worksheet or select any --

14 MEMBER KRESS: As long as it's within the
15 bounds of the envelope.

16 MR. JENKINS: Right. Right. And so the
17 process is that they look at what's currently out
18 there in terms of reactor designs, and they select the
19 design parameter and try to envelope what they are
20 interested in in the future building. They also are
21 going to add margin in that parameter to account for
22 business uncertainties and any uncertainties that
23 might exist, because they are getting this information
24 from the vendor and that might change.

25 So the particular parameter will be

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1 reviewed by the staff for the environmental and the
2 safety impacts. Primarily, they are focused on the
3 environmental impacts for the selection of the PPE.

4 MEMBER KRESS: That was my judgment also,
5 yes.

6 MR. JENKINS: Yes.

7 MEMBER KRESS: It was for environmental
8 impact purposes, yes.

9 MR. JENKINS: Right.

10 MEMBER KRESS: Okay.

11 MEMBER LEITCH: Could we talk for a minute
12 about the heat rejected to the river, or the pond? Is
13 that a parameter that is specified in the PPE?

14 MR. JENKINS: The PPE worksheet includes
15 parameters like that. It talks about heat rejection
16 from coolant tower, but we really don't know what that
17 would be at this point, because we don't have an
18 application in front of us. That's the -- they
19 presumably would be trying to address the
20 environmental impact associated with that. We would
21 also have to look at the safety side of any PPE value.

22 MEMBER LEITCH: Does the NRC -- are there
23 other agencies involved in the approval of the heat
24 rejected to the river?

25 MR. JENKINS: I think on the environmental

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1 side, the staff works with EPA and there's the state
2 -- we have a Memorandum of Understanding with states'
3 environmental agencies.

4 MEMBER LEITCH: I guess I don't really
5 understand that answer. In other words, my question
6 is can you approve an early site permit for a certain
7 heat rejection to the river? Is that within the scope
8 of the NRC to approve that or is that beyond the scope
9 of NRC or are you just silent on heat rejected to the
10 river approval?

11 MR. JENKINS: I'm going to go to my
12 colleague, Jerry Wilson.

13 MR. WILSON: I think what you're referring
14 to is something such as a discharge permit, which is
15 issued from the EPA. And our permitting on early site
16 permit is along the lines is this suitable for a power
17 plant? But that permit process does not include
18 actions taken by other agencies. So if someone
19 actually wanted to build a plant at that particular
20 site, referenced an early site permit issued by the
21 NRC, they would still have to get things like
22 discharge permits from the EPA. That's not something
23 that the NRC would do as part of this review.

24 MEMBER LEITCH: Okay. So the suitability
25 then is suitability to site a reactor on that site --

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1 MR. JENKINS: That's correct.

2 MEMBER LEITCH: -- not necessarily
3 suitability to build a turbo generator with heat
4 rejected to the river? That's beyond the scope of --

5 MR. WILSON: Well, we've made a
6 determination from the perspective of the site safety
7 characteristics and the environmental impacts, but we
8 haven't authorized construction. That's a separate
9 action from the NRC, and also that particular entity
10 that's planning to build the plant would also have to
11 get appropriate permits and approvals from other
12 agencies that have responsibilities, such as discharge
13 permits.

14 MEMBER RANSOM: That includes --

15 MEMBER LEITCH: So the approval of the
16 early site permit then does not imply --

17 MR. WILSON: That they were going to be
18 able to get those permits, that's correct.

19 MEMBER RANSOM: That includes non-federal
20 permits, including state and locals.

21 MR. WILSON: Yes.

22 MR. JENKINS: Right. And when we asked
23 the question on that, the applicants indicated that
24 they would pursue that separately.

25 Okay. The next bullet talks about that

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1 ESP applicants are expected to evaluate the severe
2 accident impacts, but the severe accident mitigation
3 alternatives would be deferred to the COL stage if the
4 information is not available at the ESP stage.

5 VICE CHAIRMAN WALLIS: I'm not sure how
6 they do that. I mean there are some designs that
7 claim they cannot have severe accidents. How do you
8 then evaluate impact of that?

9 MR. JENKINS: Well, this ESP applicant
10 would not even identify the designs that you're
11 talking about. Severe accidents as an issue has to be
12 addressed, and if they are considering any design that
13 involves severe accidents, they would have to address
14 it.

15 VICE CHAIRMAN WALLIS: I don't know how
16 they address if they don't --

17 MEMBER KRESS: Well, what I would do,
18 probably, if I were them, is that I would use the same
19 source terms that we know about for LWRs. And I would
20 do it based --

21 VICE CHAIRMAN WALLIS: There's a bounding
22 thing that has sort of --

23 MEMBER KRESS: Yes, and it's bounding.
24 And then I would say my design is going to be better
25 than -- as good as or better than that. And I can

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1 show that it meets all the dose acceptance criteria.
2 I think that's the basis of the plant parameter
3 envelope concept is you kind of using a bounding
4 value, and when you get ready to pick the design you
5 stay within that --

6 MR. JENKINS: We're still in the process
7 of talking with industry on the implementation, but
8 it's clear in terms of a regulatory position it has to
9 be addressed.

10 MEMBER RANSOM: Doesn't that, Tom, lead to
11 -- I can't think of another process, but that process
12 leads to elimination of a lot of sites --

13 MEMBER KRESS: It could.

14 MEMBER RANSOM: -- that otherwise could be
15 used if --

16 MEMBER KRESS: It could if it's a new
17 particular that has never been approved before, but I
18 think if you selected a site that already has a plant
19 on it, you're almost guaranteed that you're going to
20 fit the rules.

21 MEMBER RANSOM: I was thinking new sites.

22 MEMBER KRESS: Yes.

23 MEMBER RANSOM: If you use a bounding
24 approach using a light water reactor source term,
25 you're going to be out in the country. You're not

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1 going to be able to --

2 PARTICIPANT: Well, presumably, you could
3 use any source term you wanted as long as your plant
4 would then meet --

5 MEMBER RANSOM: Right.

6 PARTICIPANT: -- that source term.

7 MEMBER RANSOM: But if you say, "I want a
8 site at Site x," which is near a city, let's say, and
9 it's a new site, and I use the light water reactor
10 source terms, you're not going to be -- you won't
11 pass.

12 MEMBER KRESS: Maybe not and rightly so.
13 They shouldn't choose a site if it wasn't going to
14 pass.

15 MEMBER RANSOM: If they can't use that
16 approach, if it's a new site near a city.

17 MEMBER KRESS: I think that's probably the
18 way the systems will work, yes. If I were going to be
19 one of the utilities, I choose a site that already had
20 a plant on it if it were big enough to put another
21 plant it.

22 MEMBER RANSOM: Obviously, but I think the
23 ultimate --

24 MEMBER KRESS: That's because you've got
25 all that information already developed that you can

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1 make use of, and you can almost guarantee that you're
2 going to pass the 10 CFR 100 type things. But, you
3 know, that's up to them. If they want to pick a new
4 site, they can, but they have a little more problem in
5 showing -- they've got more work to do if they're
6 going to pick a new site, I think.

7 CHAIRMAN BONACA: If you wanted to get an
8 ESP in New York City, it would be the least of their
9 problems.

10 MEMBER KRESS: Yes. It's not going to
11 pass.

12 CHAIRMAN BONACA: It's a dog fight.

13 MEMBER RANSOM: Well, you might --

14 CHAIRMAN BONACA: No, I understand.

15 MEMBER RANSOM: -- be able to use a very
16 advanced reactor that has such robust features that
17 nothing comes out.

18 CHAIRMAN BONACA: That's why you want to
19 make a case probably once you have the design.

20 MEMBER KRESS: That's problematic.

21 MEMBER RANSOM: No, but I'm just saying is
22 you could use the bounding approach if you wanted to
23 take an aggressive position like that.

24 MEMBER KRESS: That's right. But I don't
25 think anybody's going to do that.

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1 MEMBER RANSOM: Gen 4 plans to talk about
2 it.

3 MEMBER KRESS: Yes. That's going to be a
4 debate we'll enter into one of these days.

5 MEMBER POWERS: Dr. Kress, you've
6 indicated that you think that an LWR source term is,
7 in some sense, bounding. But in other context, you
8 have raised the possibility that the qualitative
9 features of an LWR source term might change because of
10 different environments, ambient conditions. And I'm
11 wondering how do those two square?

12 MEMBER KRESS: Well, when I said I thought
13 it would be bounding, I had definitely in mind design
14 basis accidents and design basis space.

15 MEMBER POWERS: But I think severe
16 accidents --

17 MEMBER KRESS: But I think you would then
18 -- when they come to the point of choosing some real
19 design and real reactor type, the staff and the
20 applicant is going to have to face up as to what their
21 design basis accidents are going to be. And at that
22 point, it may very well turn out that this wasn't
23 bounding if they chose a design basis accident that
24 somehow developed a higher source term. Then we've
25 got a problem. The problem is that they won't be able

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1 to actually build the thing there if they choose that
2 type of reactor.

3 MEMBER POWERS: It seems to me that the
4 bulletin addresses the issue of severe accidents,
5 which I think ipso facto mean beyond design basis.

6 MEMBER KRESS: Yes. But that had to do
7 with just SAMDAs, severe accident alternatives.

8 MR. JENKINS: Right, which require
9 specific design information.

10 MEMBER KRESS: Yes.

11 MR. JENKINS: Okay. The last bullet --

12 MEMBER POWERS: Well, I'm still struggling
13 here.

14 MR. JENKINS: Okay.

15 MEMBER KRESS: Well, I've been struggling
16 with this too.

17 MEMBER POWERS: I mean is there a rule of
18 rationality here that a gas-cooled reactor can't come
19 in and claim that there are no accidents that will get
20 air into the system?

21 MEMBER KRESS: I think the rationality
22 would be that that's not within their design basis
23 envelope because of frequency considerations probably,
24 low frequency. We have the NEI --

25 CHAIRMAN BONACA: NEI would like to make

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1 a statement.

2 MEMBER KRESS: -- who would like to make
3 some comments here, which may be helpful.

4 MR. BELL: Thank you. Good morning. I'm
5 Russell Bell with NEI. I Chair the Early Site Permit
6 Task Force, and I've got two our applicant members
7 here with me. I commend the ACRS on the excellent
8 questions that they're asking of Renaldo. On some of
9 these dose consequences in the severe accident area,
10 the discussion is along the lines that we're preparing
11 to propose to the NRC, and that is that a generic
12 approach to severe accident impacts could be used to
13 meet the expectation of the NRC that this issue be
14 addressed at the early site permit stage even in the
15 absence of actual design information. So that is the
16 path we're on.

17 It was NUREG-1150 that was one example of
18 a generic analysis of severe accidents. And I think
19 we would take credit for the Commission policy that
20 any future reactor would be expected to have superior
21 severe accident performance than those evaluated under
22 1150. So that's an outline of the approach we plan to
23 more fully discuss with the staff shortly.

24 On design basis dose, a little different
25 situation. Early site permit is about the site and

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1 not about the design, and we continually need to even
2 remind ourselves of that as we talk as a Task Force.
3 So we tumbled early to the reality that the only
4 aspect of dose consequence analyses that is determined
5 by the site of the X/Q. And so we proposed an
6 approach to the staff along the lines I think Dr.
7 Kress was alluding to earlier whereby NRC would -- we
8 propose they would review and approve the X/Q,
9 particularly that site in the ESP, but that would
10 recognize that the actual dose consequence analyses
11 would be a matter addressed in design certifications
12 or at the combined license stage when you had an
13 actual plant design. And only at that time when you
14 have the actual site, including the X/Q, and the
15 actual design dose consequence -- design basis dose
16 consequences can you actually determine that the Part
17 100 criteria is met.

18 On this we and the staff have disagreed.
19 We proposed that on December 20. Their response back
20 to us indicated that they would expect to see dose
21 consequence analyses in the early site permit
22 application. We continue to disagree but to
23 facilitate the pilot ESP applicants going forward, we
24 have proposed including a bounding design basis
25 accident dose consequence in the ESP, couple that with

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1 the site X/Q.

2 MEMBER KRESS: That means you have to have
3 a source term.

4 MR. BELL: That's right, that's right.
5 We'd probably choose one of the certified designs or
6 one of the ones going through certification, because
7 those are the designs we've got complete information
8 on. Now, in our view, at best this would demonstrate
9 that the site can meet Part 100 requirements, not that
10 it does. And so that's the nature of our disagreement
11 with the staff. But we are on a success path in terms
12 of moving the pilot applicants forward, because we
13 think that there is a bounding approach here that is
14 workable. We'll work out the details of that
15 implementation with the staff. We're not convinced
16 it's the optimal or the necessary one.

17 MEMBER KRESS: That X/Q is actually a site
18 characteristic of this.

19 MR. BELL: That's right.

20 MEMBER KRESS: I mean it's already
21 determined by the site itself.

22 MR. BELL: It is and like other site
23 characteristics, hydrology, seismology, that would be
24 firmly and thoroughly established in the early site
25 permit approved by the NRC. I hope that helps.

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1 MR. JENKINS: Just to be clear, the
2 gentleman stated that their position would not assure
3 that the site meets Part 100 until the COL stage. And
4 the current regulations say, Part 52 Subpart A, that
5 the site must meet Part 100. So there's no mechanism
6 to allow the staff to come to its findings --

7 MEMBER KRESS: So in order to conform with
8 the site permitting rules, you'd have to have some
9 sort of --

10 MR. JENKINS: Exactly.

11 MEMBER KRESS: -- a demonstration.

12 PARTICIPANT: At least a bounding number.

13 MR. JENKINS: Right. And that's the
14 reason why our letter back recommended the bounding
15 PPE and associated design information. And we also
16 concluded that the siting cannot be completely
17 separated from the design. This portion of the design
18 parameters must be specified in some way so that you
19 can perform the radiological dose consequence
20 evaluations and the staff can verify them.

21 MEMBER KRESS: That seems a little strange
22 to me, and I'll tell you why. I've got a site that
23 has already developed its wind characteristics and its
24 distance population characteristics, and it's already
25 got a site exclusion area boundary to it. All I have

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1 to do to show that I meet the dose criteria is pick a
2 source term that gives you that value or below it.

3 MR. JENKINS: Right. Right.

4 MEMBER KRESS: And so I mean it --

5 MR. JENKINS: Right. And we agree --

6 MEMBER KRESS: -- just seems like simply
7 saying I will pick a source term that meets that, and
8 I will have a design that has that source term or
9 less. I mean is that -- it just seems strange that
10 you're requiring a calculation or something to be done
11 to show it, because its' --

12 MR. JENKINS: Well, that's what the
13 regulations say. The regulation points us to it.

14 MEMBER KRESS: Yes. It still seems
15 strange to me, though, because it seems like I would
16 have liked the idea of just saying, "Well, here's the
17 X/Q and we'll make sure when we put the plant down
18 there that the dose actually meets."

19 MR. WILSON: Jerry Wilson, NRR. In a way,
20 though, it's no different than any other issue that we
21 evaluate in the early site permit. You can't
22 determine the suitability of the site without some
23 understanding of the types of plants that are being
24 considered by the applicant. You need to know about
25 the plan to look at the safety characteristics and the

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1 environmental impacts.

2 And so what we're asking for is a
3 demonstration, and, yes, they're going to have to
4 assume a source term to do that, but you have to make
5 other assumptions about the types of plants that you
6 may be planning to put there in order to do this
7 review. You can't separate a site review from a
8 design review completely. You have to have some
9 understanding of what's being considered by the
10 applicant to do it, and we need to see some sort of a
11 demonstration that that site is suitable for those
12 types of plants you're considering.

13 MR. JENKINS: In fact, we went back to the
14 last rulemaking, this is SECY 96-118, which pertained
15 to amending Parts 50, 52, 100, and it issued the
16 Appendix S to Part 50. And the discussion was quite
17 extensive on the Commission. It's essentially knowing
18 what's the radiological consequences of the new
19 facility before you give the approval for that
20 facility, the site approval for that facility.

21 MEMBER KRESS: Okay.

22 MR. JENKINS: Now, the --

23 MEMBER KRESS: That last bullet.

24 MR. JENKINS: Yes.

25 MEMBER KRESS: Isn't that a requirement

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1 for an environmental impact statement?

2 MR. JENKINS: Yes, it is.

3 MEMBER KRESS: Do you have to do this?

4 MR. JENKINS: Yes. The question is has to
5 do with, well, what does that review encompass?
6 There's an update since that bullet was developed.
7 The staff has issued a response. Basically, we have
8 said that you would like to limit the scope of the
9 review. We basically agree that you can, but you have
10 to justify why you're limiting the scope of the
11 review.

12 MEMBER KRESS: And then what -- is there
13 any guidance on what --

14 MR. JENKINS: There's guidance contained
15 in the --

16 MEMBER KRESS: -- constitutes appropriate
17 justification?

18 MR. JENKINS: Well, the applicant would
19 have to develop the justification for that.

20 MEMBER KRESS: Yes. They have to figure
21 out what the --

22 MR. JENKINS: Right.

23 MEMBER KRESS: I mean is it simply the
24 fact that it would be a lot of cheaper for us at this
25 site than any other? Is that a justification?

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1 MR. JENKINS: Well, and I guess I would
2 defer to the Environmental staff. There are a number
3 of guidance in the environmental standard review plan,
4 which is NUREG-1555 and that's referenced in the ESP
5 review standard. And that basically steps through the
6 applicant's for how to do that review. The question
7 -- this is a subject of apparently a rulemaking and
8 that's another wrinkle to this in that the staff is
9 going through a technical review stage now. We had a
10 public meeting in January to get public comments on
11 this particular subject.

12 MEMBER KRESS: This particular Committee
13 normally concerns itself with safety and --

14 MR. JENKINS: Right.

15 MEMBER KRESS: -- and not environmental
16 impacts, so we're a little bit fuzzy on some of the
17 new rules relating to environmental impacts.

18 MR. JENKINS: Next slide. Some of the
19 activities that the staff is and has been engaged in
20 includes local public meetings. We had a public at
21 Grand Gulf, that vicinity, November 14 of last year.
22 Clinton, we're planning to have a public meeting in
23 that general vicinity March 20. And North Anna on
24 April 1.

25 MEMBER KRESS: So Grand Gulf is in

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1 Alabama?

2 MR. JENKINS: No, it's in Mississippi.

3 MEMBER KRESS: Mississippi. I knew it was
4 down there somewhere.

5 MR. JENKINS: So we would hand out
6 brochures like this one and other brochures to explain
7 to the public the scope of our review.

8 MEMBER KRESS: Didn't you have a big
9 turnout at that November 14 meeting?

10 MR. JENKINS: Well, big is relative to the
11 local community that you're involved in. And Port
12 Gibson, Mississippi is a small population. We had
13 roughly 100 people show up.

14 MEMBER KRESS: I wouldn't call that a big
15 turnout.

16 MR. JENKINS: Well, it all depends on how
17 you view it.

18 MEMBER KRESS: Well, were they generally
19 in favor of this or --

20 MR. JENKINS: We got positive feedback
21 from those who attended regarding the staff's
22 presentation. And, of course, each community has
23 their own view as to the existing facility, and now
24 you're going to add another facility or you are making
25 plans to seek site approval for another facility.

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1 And, generally, for Grand Gulf, the population is all
2 in favor of it.

3 MEMBER KRESS: Oh, that's interesting.

4 MR. JENKINS: That's the general sense
5 that we get.

6 MEMBER POWERS: Dr. Kress, let me ask a
7 question.

8 MEMBER KRESS: Okay.

9 MEMBER POWERS: Suppose that I retired
10 from the ACRS and went to work for the Nuclear Control
11 Institute, came to the hearing here and said the
12 bounding source term that you have to use in the
13 absence of any information about the plant is, one,
14 the bounding source term that's been measured, and I
15 insist that you use the source term from Chernobyl.
16 How do you respond to me?

17 MEMBER KRESS: I guess I would fall back
18 on the concept that Chernobyl would not be in my
19 design basis. I would fall back on that card and say
20 -- you know, there would be a big debate over whether
21 that sort of thing ought to be in the design basis or
22 not, and we've traditionally excluded that type of
23 accident from the design basis because of the low
24 probability of occurrence.

25 MEMBER POWERS: No. You can't fall back

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1 on -- I mean I chose it deliberately. You can't fall
2 back on occurrence that's occurred, and any kind of
3 Bayesian Update --

4 MEMBER KRESS: It wasn't the kind of plant
5 I'm going to build on there. So the probability of
6 that kind of accident for the type of plant I'm going
7 to build there is low. And I can say, well, it's so
8 low that the probability times the consequences of it
9 are still within an acceptable range and I don't have
10 to deal with it in design basis space simply because
11 it isn't a real probability. That would be the
12 argument I would use. Now, I don't know how valid
13 that argument is. It's basically the one that's
14 always used in design basis concept.

15 MEMBER SIEBER: It would seem to me,
16 though, that Part 100 that drives all this is not
17 risk-informed; it's deterministic.

18 MEMBER KRESS: I think it's --

19 MEMBER SIEBER: It's a risk argument with
20 probabilities of occurrence that probably wouldn't
21 apply.

22 MEMBER KRESS: Part 100 can be said to be
23 risk-informed because you have to show that for a
24 whole range of design basis accidents that you meet
25 the dose criteria and that and that these design basis

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1 accidents are chosen -- now this is a rationale, it's
2 not really true -- are chosen so that in a real risk
3 base you will meet some sort of risk acceptance
4 criteria if you conform to the design basis concept.
5 So it could be said to be risk-informed if you took
6 that view.

7 MEMBER SIEBER: Well, I think you'd have
8 to make the argument as you already have in order to
9 be able to make that statement. But as you read it
10 verbatim, it's not risk-informed.

11 MEMBER KRESS: Well, then if then they
12 choose to, say, put a HTGR on the site, then we're
13 going to have to face up to what are the design basis
14 accidents for this particular kind of plant?

15 MEMBER SIEBER: That's right.

16 MEMBER KRESS: And that's going to be
17 another debate all together. And it should be risk-
18 informed somewhat.

19 MEMBER SIEBER: I would --

20 MEMBER POWERS: I get rid of the idea of
21 a design basis accidents.

22 MEMBER KRESS: Well, that might be one way
23 to do it. I've got some sympathy for that view. But,
24 you know, we're -- in our regulations, we deal with
25 design basis phase almost exclusively, because we

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1 don't have a risk-informed regulatory system
2 alternative. So at the moment, we have to think in
3 those terms, and I think when they choose a reactor
4 that's not like an LWR, I think there will be a debate
5 as to what the design basis accidents actually are.

6 MR. JENKINS: I think it's important to
7 remember that at this particular point in time the
8 staff will not know what specific reactor design that
9 they are seeking. It's a 20-year permit, so we do not
10 know what types of designs that may come along that
11 fits within the envelope of the PPE and therefore also
12 the site characteristics are compatible. So we do not
13 know that the Commission will be giving site approval
14 for this future facility. And the COL, and I'm sure
15 Jerry Wilson would agree, that's where we would bring
16 together the design and referencing the ESP and taking
17 into consideration some of the other features that are
18 necessary for the actual construction of the plant.

19 MEMBER RANSOM: Renaldo, could the
20 applicant use an early site permit to ultimately build
21 ten small, say, pebble bed machines on that site? I
22 mean that's been proposed.

23 MR. JENKINS: If the permit --

24 MEMBER RANSOM: Within the scope of the
25 ESP?

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1 MR. JENKINS: If the permit in fact allows
2 it.

3 MEMBER RANSOM: In other words, we'd have
4 to disclose the fact that he's actually thinking of up
5 to ten modules.

6 MEMBER KRESS: I think you disclose his
7 total power.

8 MEMBER RANSOM: Right. You would disclose
9 the total power in terms of megawatts, and the
10 process, the review process will unearth certain
11 information that will be part of the ESP, the permit
12 itself. Our intent is, for example, that all of the
13 PPE values would be specifically identified as part of
14 the permit, as an attachment, for example. So that
15 any future design would have to fall within not only
16 the site parameters that are typically associated with
17 the site characteristics but also the PPE values that
18 the applicant is telling us is bounding. And the
19 staff would evaluate the environmental impacts and the
20 safety impacts associated with the application.

21 MEMBER RANSOM: Well, I chose that example
22 carefully to get to my next question.

23 MR. JENKINS: Okay.

24 MEMBER RANSOM: Which is given the fact
25 that the applicant discloses that, that he's going to

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1 use multiple modules, maybe up to ten, would you then
2 require him to take simultaneous accidents in all of
3 them or just would he be allowed to take an accident
4 only module at a time?

5 MR. JENKINS: The areas that we've talked
6 about so far in terms of the radiological dose
7 consequence evaluation and severe accidents would be
8 the only two areas that we would be exploring. So
9 specific design --

10 MEMBER RANSOM: Well, I'm getting to the
11 source term question.

12 MR. JENKINS: Okay.

13 MEMBER RANSOM: So if you say, well, he's
14 only has to take an accident in order to pick a
15 bounding source term in one plant, one module, maybe
16 100-megawatt module, that's a different story than
17 having a source term that's based upon an accident
18 sequence, which involves a common mode failure and
19 which results in multiple cores being damaged
20 simultaneously, which would change the source term
21 with a constant X/Q. You get a different result. So
22 I'm trying to find out -- this is all new to me too.
23 I'm trying to find out how you handle something like
24 that.

25 MR. WILSON: This is Jerry Wilson, NRR.

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1 That type of what I would consider part of the design
2 review we do either in design certification review if
3 there was a multimodule design proposed or in the
4 application to build the plant, and we would make that
5 determination as whether or not there were common mode
6 failures to lead us to conclude that you could have
7 more than one plant with a design basis discharge.

8 But for the purposes of early site permit,
9 I don't believe we would do that. The applicant's
10 going to propose some sort of a bounding release, and
11 we'll evaluate the site from that perspective. And
12 then it's up to the subsequent applicant to
13 demonstrate that that release was bounding for their
14 particular design or designs. And if not, then they
15 wouldn't be able to reference that applicant or they'd
16 have to do something additionally to demonstrate that
17 site was acceptable. So from that perspective, the
18 applicant is taking the risk. We're going to assume
19 that that source term that he's specifying will be
20 bounding for that subsequent design or designs that
21 they propose to site there.

22 MEMBER KRESS: That's why I thought it
23 would be just sufficient to say, "We will meet the
24 regulations." It's silly to say, "I'm going to have
25 this bounding source term and then --"

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1 MR. WILSON: Well, Mr. Kress, if you want
2 to submit an application on a postcard and say you're
3 going to meet the regulations, you can try, but
4 probably won't get passed me.

5 MEMBER KRESS: No. I know you have to
6 have these parameters, though, for all the
7 environmental impact and stay within them. I don't
8 think there's any equivalent to it for the
9 environmental impact, but for this particular aspect
10 it seems like, "Well, we'll just stay within the --
11 we'll meet 10 CFR 100, that's our commitment."

12 MR. WILSON: Well, traditionally, we have
13 expected applicants to do a demonstration to show us
14 how they're going to meet the regulations.

15 MEMBER KRESS: Well, that's the X/Q and
16 we'll say, "Well, we'll make our source term such that
17 it meets the regulation." That's basically all
18 they're going to do anyway. They'll work backwards.
19 They'll take the X/Q got for this site and want to get
20 approved, and then they'll calculate the source term
21 it takes for that X/Q to meet the regulations and say,
22 "We'll stay within that source term."

23 MR. WILSON: I could do that for all the
24 regulations. I could do that for all the regulations
25 and all the environmental impacts.

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1 MEMBER KRESS: Well, that's basically what
2 the parameter envelope does for you.

3 VICE CHAIRMAN WALLIS: This X/Q is
4 weather-related. It's dispersal and not --

5 MEMBER KRESS: Yes, it's dispersal.

6 VICE CHAIRMAN WALLIS: So you're assuming
7 that climate is somehow invariant over 20 years?

8 MEMBER KRESS: Well, no. They use
9 bounding values for that.

10 VICE CHAIRMAN WALLIS: How do you know --
11 I mean the Gulf stream reverses in ten years in time
12 or something and you have to reevaluate the --

13 MEMBER RANSOM: I think the answer to your
14 question, Dr. Wallis, is, yes, that using X/Q assumes
15 that climate is constant, it doesn't change
16 dramatically like true causes like the one you just
17 mentioned.

18 MEMBER SIEBER: It's also assumes there's
19 no hills or valleys.

20 MEMBER KRESS: No, it's actually based on
21 measurements at the site.

22 MEMBER SIEBER: That's right, but --

23 MEMBER POWERS: Or you could build an
24 artificial hill and change your X/Q.

25 MEMBER SIEBER: Absolutely.

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1 MEMBER KRESS: Or buildings.

2 MEMBER POWERS: Or level that hill. Move
3 the hill.

4 MEMBER KRESS: It's possible. Please
5 continue.

6 MR. JENKINS: All right. We also plan to
7 have a public meeting here in Rockville to get
8 feedback from the public on May 14, and the staff will
9 be continuing to refine the nominal ESP review and
10 decision timeline. That's the next slide that talks
11 about --

12 MEMBER POWERS: Incidentally, Dr. Kress,
13 in light of your extreme interest in this issue, I
14 certainly think I would vote with the Committee to
15 support your travel to the Clinton meeting.

16 MEMBER KRESS: I was just about to write
17 that one down on my list here as something I may want
18 to go to.

19 MR. JENKINS: As the slide indicates, we
20 are projecting 33 months from the receipt of the
21 application to the Commission decision, and these are
22 -- the milestones are bounding in nature. If we get
23 it completed earlier, then we move on to the next
24 milestone.

25 And just to bring your attention, the

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1 safety review will be in parallel, similar to license
2 renewal, but will be conducted in parallel by the
3 staff, where you -- starting from the acceptance
4 review, day 60, you would have both the safety RAIs --
5 the staff would be looking to develop RAIs with
6 respect to safety and also RAIs with respect to the
7 environmental impact review. And as we move along the
8 ACRS, this Committee would be involved basically from
9 day 43, where the SER with open items would be issued,
10 and we would be bringing the final safety evaluation
11 back to this committee for review. Next slide.

12 MEMBER RANSOM: Well, hold it a minute.
13 You have an 840 and ASLB initial decision? That's an
14 assumption that there will be a public hearing on
15 this?

16 MR. JENKINS: Yes.

17 MEMBER RANSOM: Or is that a required?

18 MR. JENKINS: We're assuming 12 months for
19 the hearing.

20 MEMBER RANSOM: But is it required is my
21 point?

22 MR. JENKINS: Yes, it's a mandatory
23 hearing.

24 MEMBER RANSOM: Thank you.

25 MR. JENKINS: Okay. Next slide.

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1 VICE CHAIRMAN WALLIS: You're assuming
2 that the ACRS doesn't have any problems with this
3 thing.

4 MR. JENKINS: we're assuming we are
5 receiving a high quality application from the
6 applicant.

7 VICE CHAIRMAN WALLIS: They're going to
8 miss you. They'll just see you a couple of days after
9 the ACRS review.

10 MR. JENKINS: As this slide indicates, the
11 purpose of the review standard is to provide guidance
12 to the staff and information to stakeholders on the
13 review of an ESP application. We used existing
14 guidance to the extent possible. That was our
15 starting point with the development of the review
16 standard. While we tried to be consistent with the
17 power uprate review standard and license renewal
18 guidance, there were some points in which we had to
19 depart due to different format and content issues.
20 Next slide.

21 The draft ESP review standard was issue
22 for our interim use and public comment in December of
23 2002. And as I said before, the comment period ends
24 at the end of this month, March 31, 2003. We provided
25 the Committee with copies of this document, and we're

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1 now in the process of developing additional guidance
2 and quality assurance, the radiological dose accident
3 analysis, that's what that term means, and physical
4 security. And we're on course to release that later
5 this month, and we will provide copies to the
6 Committee of these three new sections that will go out
7 for public comment. Next slide.

8 As part of the development approach, the
9 staff looked at NUREG-0800 1981, that's the standard
10 review plan for nuclear plants, we looked at NUREG-
11 1555 1999, that's the environmental standard review
12 plan, regulatory guides, information notices and other
13 regulatory documents, such as NUREGs. Next slide.

14 The primary review branch was asked to
15 markup their assigned sections in NUREG-0800 and
16 NUREG-1555 to basically achieve two results. One is
17 to clearly show what's needed and what's not needed in
18 the ESP stage. And we wanted to revise existing
19 guidance and bring some of these sections up to date
20 since the documents we were -- those document 1981,
21 clearly there were references that were out of date.
22 Next slide.

23 As a result of these markups, the document
24 essentially applies mainly to Chapter 2, NUREG-0800
25 having to do with site characteristics. Certain

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1 sections were found not to be needed for an ESP review
2 since they were addressed in other sections. The
3 NUREG-0800 is basically a holistic document reflecting
4 both the siting review, the design, construction and
5 operations that the staff would engage in under the
6 old Part 50. Additional sections were found to be
7 applicable -- the QA, the security, some of the
8 changes that have been going on in the security area.
9 The amendment has this and examples being the site
10 missiles and aircraft hazards. Emergency planning,
11 that's the new guidance. And as we mentioned before,
12 the accident analysis will be called Section 15.0 and
13 that really deals with meeting 10 CFR 50.34(a)(1) on
14 what we were talking before on radiological dose
15 consequence evaluation. Next slide.

16 So markups were made with the NUREG-0800
17 sections, and we attended those sections to the review
18 standard. We wanted the review standard to be a
19 stand-alone document. Although we were using NUREG-
20 0800, 0800 remains the same and does not constitute
21 any revisions to NUREG-0800.

22 VICE CHAIRMAN WALLIS: When are you guys
23 going to -- you've only had one public meeting so far?

24 MR. JENKINS: We've had one local public
25 meeting?

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1 VICE CHAIRMAN WALLIS: Do you find there's
2 a concern about human-caused events, let's say? I
3 mean I noticed in this document that we got here
4 there's something about dam failures, and it says
5 something about if you can show there isn't likely to
6 be an earthquake, there's going to be challenge to the
7 dam to do various things. I would think that there
8 might be members of the public who said if you're
9 going to build this reactor downstream of a dam, how
10 about man-caused failures of that dam? I'm not saying
11 this is likely to happen, but I can see that the
12 public might be concerned.

13 MR. JENKINS: Well, one of the purposes of
14 our going out to the local public near the site is to
15 hear comments like that if in fact that's the case.
16 As far as Grand Gulf, the local population was very
17 supportive of the idea of a new facility, and the
18 security, for example, is one of those things that's
19 up in most people's minds, so we fully expect to and
20 plan to address any questions that might come up that
21 we think the public would raise in these meetings.
22 Next slide.

23 VICE CHAIRMAN WALLIS: So this is
24 something which would be in your decision-making
25 process but not specified in your standard.

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1 MR. JENKINS: No. The purpose of the
2 public meetings is to provide public outreach
3 consistent with the NRC's strategic goal.

4 VICE CHAIRMAN WALLIS: If it were a public
5 outcry as well as outreach about something, then you'd
6 have to take that into consideration, even if the
7 physical problem that the public was crying out about
8 was not in your review standard.

9 MR. JENKINS: Well, our current protocols
10 call for feedback -- taking feedback any time we have
11 a public meeting, and we listen to what the public
12 says on particular issues. However, we have to follow
13 the applicable regulations and the review guidance
14 that we've put out.

15 So the results of this markup indicates
16 that few changes were needed to NUREG-1555, as you
17 were saying, that this is the environmental area.
18 It's fairly recent. And the review standard just
19 basically indicates what's applicable. The EIS that
20 the staff would develop is a snapshot in time. The
21 COL regulations call for an environmental assessment
22 later based on new information or things that were not
23 addressed at the ESP stage. Next slide.

24 So the review standard document contains,
25 as you have in front of you, the process guidance;

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1 that is, how the staff is going to go through the
2 steps once we receive the application, as well as some
3 of the internal procedures that are applicable.
4 Attachment 1 is that review process flow chart.
5 Attachment 2 is the applicability table for the safety
6 evaluation, followed by the marked up NUREG-0800
7 sections. Attachment 3 is the applicability table for
8 the environmental impact statement that the staff
9 would develop. And we took a stab at developing a
10 template, a safety evaluation report template. Next
11 slide.

12 Just some discussion on some of the issues
13 that we were faced with in developing this document.
14 The 10 CFR Part 52 is fairly new in the sense that
15 there's not much precedent and it's not specific. And
16 there's the issue of where do you draw the line
17 between the design information and what would be the
18 siting type information to be verified? And so
19 there's questions of how much the staff needs to look
20 at and the difficulty in terms of the gray areas
21 between the ESP and the COL. And so the staff is in
22 the process of sorting that out. The industry has
23 formed the COL Task Force, and so we've already
24 started meeting on issues related to COL.

25 The review standard, particularly since we

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1 had not received the NEI position with respect to the
2 PPE, the use of PPE, did not allow us to address PPE
3 as a method. Currently, we do plan to revise the
4 document in the final version to include additional
5 flexibility consistent with our position. A letter
6 was sent to NEI. So we will accept PPE values as
7 surrogate design information. Next slide.

8 Other issues that were, I guess, central
9 to the development of the document had to do with the
10 QA and Appendix B. We had talked about that as an
11 issue we had with industry. Part 52 does not require
12 Appendix B but the finality of the ESP determination
13 implies that the staff has looked at the ESP
14 information and essentially we are, when we grant the
15 ESP, stating that there's no problems from a quality
16 point of view. So this new section is being developed
17 to address QA for the ESP application.

18 On radiation protection, if the applicant
19 and license is the same, the licensee will handle the
20 compliance of 10 CFR Part 20, and the applicant will
21 discuss the impact on the construction workers in the
22 environmental report. If the applicant and the
23 licensee is different, then the licensee, once again,
24 will have to ensure that Part 20 is complied with, but
25 the applicant would have to -- excuse me, if the

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1 applicant and the licensee is the same, the licensee
2 takes on the responsibility of addressing both Part 20
3 and the impacts on the construction workers. If it's
4 different, then the licensee addresses only the Part
5 20 compliance, and the applicant discusses the impact
6 on the construction workers in the environmental
7 report. Sorry. Next slide.

8 There was a question about coverage for
9 subsurface investigation. Staff would like to make
10 sure that there is adequate -- reasonable assurance
11 that the actual site conditions revealed during
12 excavation will be consistent with the model used for
13 the ESP and that the license conditions requiring
14 reporting of information has sufficient implication
15 for public health and safety.

16 So as the next slide shows, if there is
17 inadequate meteorological data, then the staff would
18 basically deny the application.

19 VICE CHAIRMAN WALLIS: You had a
20 superfluous "not" in that. You don't need that word,
21 "not," and that makes it nonsensical. If inadequate
22 data are not available.

23 MR. JENKINS: Right. If --

24 VICE CHAIRMAN WALLIS: If adequate data
25 are not available or inadequate data are available.

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1 You don't need two negatives.

2 MR. JENKINS: Right. If there's an
3 inadequate meteorological data --

4 VICE CHAIRMAN WALLIS: You're not looking
5 for inadequate data.

6 MR. JENKINS: No, we're not looking for
7 it. Only if we find it.

8 VICE CHAIRMAN WALLIS: We've seen some in
9 the past in other context.

10 MR. JENKINS: Thank you.

11 MEMBER RANSOM: Some of the kinds of
12 inadequate data we've seen is not.

13 MR. JENKINS: Thank you for that
14 clarification. Next slide.

15 MEMBER KRESS: You get lots of really deep
16 advice from this Committee.

17 VICE CHAIRMAN WALLIS: This is quality
18 assurance.

19 MR. JENKINS: The next step for the review
20 standard is to incorporate the public comments, any
21 comments that this Committee has to finish a new draft
22 by June 2003 and incorporate any lessons learned, any
23 information we can obtain from the acceptance review
24 of the initial ESP application. We plan to issue the
25 final, that is Rev. 0 of the document by the end of

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1 this year.

2 VICE CHAIRMAN WALLIS: So you wait until
3 you've got experience with these initial applications
4 before you issue the document?

5 MR. JENKINS: Well, the acceptance review
6 will allow us to make sure that in terms of scoping
7 that we make sure that there's nothing that's --

8 VICE CHAIRMAN WALLIS: So you would use
9 the draft document in your acceptance review and then
10 modify it when you find that it didn't work out in
11 some aspects or something.

12 MR. JENKINS: Well, if there's additional
13 information that we have to take in consideration --

14 VICE CHAIRMAN WALLIS: You'll learn from
15 that.

16 MR. JENKINS: -- we'll learn from that.

17 MEMBER KRESS: Now, if I'm a utility and
18 I've got a early site permit already granted to me and
19 I come in later and tell the NRC that I'm going to
20 build an AP-600 on there and it's already certified.

21 MR. JENKINS: Right.

22 MEMBER KRESS: What do I have to do then?

23 MR. JENKINS: The next step is if you have
24 -- an AP-600 is a certified design.

25 MEMBER KRESS: Yes.

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1 MR. JENKINS: And so you would reference
2 that design and reference the ESP in your COL
3 application.

4 MR. WILSON: Jerry Wilson, NRR. To add on
5 to what Mr. Jenkins said, the certified designs all
6 have postulated site parameters.

7 MEMBER KRESS: Yes. That's what I --

8 MR. WILSON: And so you'd have to compare
9 the actual site characteristics to the postulated site
10 parameters. And the ESP is going to have postulated
11 design parameters, and you're going to have to compare
12 the actual design characteristics to the design
13 parameters.

14 MEMBER KRESS: That would be the --

15 MR. WILSON: And make sure all that
16 matches up. And then in addition, of course, you're
17 going to have to talk about the qualifications of that
18 particular applicant to design and build a nuclear
19 power plant and the acceptability of their programs to
20 operate that plant.

21 MEMBER KRESS: Yes. That's standard.

22 MR. JENKINS: Yes.

23 MEMBER KRESS: Well, are there any
24 comments or questions from the rest of the Committee?
25 I guess then that we thank you very much. This has

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1 been very informative, and I suspect we'll try to
2 craft a letter for you. Turn it back to you, Mr.
3 Chairman.

4 CHAIRMAN BONACA: Thank you. It is a
5 unique achievement, the 500th meeting of the ACRS, I
6 mean that we've finished this presentation half an
7 hour ahead of time, so I commend you for that. And I
8 think we want to reschedule --

9 MEMBER KRESS: It wasn't my fault.

10 CHAIRMAN BONACA: No. I think it was
11 good. I think we got a lot of information. I think
12 we learned it early. What I would propose we do we
13 take a break now until 10:30 and then we resume the
14 meeting at 10:30 and we just review DG-1119, which I
15 believe is in good shape, and vote on it so that we
16 can close that. And then at 10:45 we have the
17 presentation from the staff regarding Fort Calhoun.

18 (Whereupon, the foregoing matter went off
19 the record at 10:00 a.m. and went back on
20 the record at 10:43 a.m.)

21 CHAIRMAN BONACA: Okay. Let's go back
22 into session. We do have a briefing by the staff
23 regarding license renewal under the new regime, which
24 is the new GALL regime. And the staff came to us and
25 explained that these changes will cause us to have to

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1 look at the application in a different way, and they
2 want to help us navigate the application which
3 supposedly will be significantly different. So we
4 thought that it would be helpful for the members to
5 hear what is different and get some training.

6 MEMBER SIEBER: You may want to point out,
7 though, Mr. Chairman, that there's a Cd-Rom in the
8 book --

9 CHAIRMAN BONACA: Yes.

10 MEMBER SIEBER: -- that covers the latest
11 four or five documents that we were given.

12 CHAIRMAN BONACA: Right. In the back of
13 your handout for the meeting, you do have in fact a
14 Cd-Rom which includes the improved license renewal
15 guidance documents. So you may want to take it with
16 you and use --

17 VICE CHAIRMAN WALLIS: Way in the back.
18 Way in the back of this black book.

19 CHAIRMAN BONACA: With that, we have Mr.
20 Burton here and he'll walk us through.

21 MR. BURTON: All right. Thank you, Dr.
22 Bonaca. Good morning. As Dr. Bonaca, mentioned, I --
23 it was probably about five or six months ago that I
24 met with Dr. Bonaca and Mr. Leitch. I guess I'm still
25 maybe feeling the effects of back when we did the

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1 Hatch review. I know that a number of you had some
2 issues that we called navigational challenges, and so
3 I'm very sensitive to that now. And as we started to
4 go through Fort Calhoun, which is the first plant to
5 fully implement the new GALL process, I thought that
6 it would be helpful before you all actually start to
7 focus your attention on it to try and give you a
8 little tutorial about how these new applications are
9 formatted and also a little bit about how the staff is
10 actually reviewing these new GALL applications.

11 So that is why I am here today. And just
12 very briefly, what I'm going to try and do is talk
13 about the current status of the GALL plants, talk
14 about the new application format, the new approach
15 that the staff is using when they review these
16 applications and how we're documenting our review
17 results.

18 I'm probably going to -- at one point, I
19 think I gave you probably a little bit too much
20 information in here. When we get into -- I wanted to
21 -- when I get to the point where I'm talking about
22 what the reviewers are doing, it gets a little
23 intense. I may skip a few of those slides.

24 But for now here's the current status.
25 St. Lucie is going to be the last pre-GALL plant that

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1 you all are going to see. You guys just went through
2 with Peach Bottom, right after that is St. Lucie.
3 That's the last pre-GALL plant. And, actually, St.
4 Lucie actually incorporated a few aspects of GALL in
5 their application, so you'll actually get sort of a
6 transition into the new GALL regime. But starting
7 with Fort Calhoun, everybody after that is going GALL
8 100 percent. And in fact, we have six plants that are
9 currently in-house that the staff is reviewing: Fort
10 Calhoun, Robinson, Ginna, Summer and Dresden/Quad
11 Cities, which is a joint application. And I may have
12 jumped the gun a little bit in even coming here in
13 March, because you all won't actually be -- I won't
14 actually be presenting the Fort Calhoun review results
15 until your June meeting, and even then it's going to
16 be a little while yet.

17 But in terms of the new format, I wanted
18 to just tell you in general what's changing and what's
19 not. Some things are changing very little; other
20 things are changing significantly. In Section 2,
21 there is a small change when you look at it visually,
22 but it's fairly significant because what the change
23 that we did make in Section 2 really ties a lot of
24 stuff together.

25 And what we have in Section 2, we've added

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1 in place of the normal information in the third
2 column, which is usually component material or
3 something to that effect, we've actually put in what
4 I call links, and you'll get examples of that that
5 actually link the information, the component in
6 Section 2 with the aging management review results in
7 Section 3.

8 In Section 3, Section 3 has changed
9 significantly. There are three -- each system or
10 structure group has up to three different tables.
11 Each table has different columns, mean different
12 things, you use them in different ways, and I'll go
13 through that.

14 Section 4, which covers the time-limited
15 aging analysis, that has not changed at all. So that
16 will be just the way you're used to seeing it. And,
17 again, Appendix B, which has the aging management
18 programs, that has also changed significantly. And
19 I'm going to go through some examples of that.

20 The first thing I wanted to show you was
21 an example of the Section 2 tables. What you have
22 normally seen -- the first two columns have stayed the
23 same. Normally what you've seen in the last column is
24 a list for each of the components, perhaps like what
25 the material -- what material it was made of, that

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1 kind of thing. We've eliminated that. Instead what
2 we have are a series of what we call links, and this
3 is going to come up again. And what these do is they
4 actually link you to the appropriate Section 3 table.

5 One of the things that has happened in the
6 new GALL regime is that in Section 3 what you were
7 used to seeing was a series of tables, each table
8 representing a system. In the new GALL regime, all of
9 that is gone. Section 3 loses the individual system
10 flavor. For instance, all of the components that make
11 up what we call the reactor systems, the reactor
12 vessel internals, the vessel itself, the RCS, all of
13 the components in those three systems get rolled up
14 into a series of reactor system tables. So you don't
15 see the individual components for those systems.

16 Anyway, so in order for you to understand
17 for each plant-specific component where it lies in
18 that rolled up Section 3 table, we needed to create
19 these links. And when you go to the Section 3 tables,
20 you'll see that link again in the first column of the
21 Section 3 table. So format-wise, that's how Section
22 2 has changed. Okay?

23 MEMBER POWERS: No, not okay.

24 MR. BURTON: Okay. Go ahead.

25 MEMBER POWERS: You mean now I have to go

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1 to two sets of tables to get the same information I
2 used to get from one?

3 MR. BURTON: Well, actually, what you had
4 before was you still had Section 3 tables, but the
5 individual -- each table was system-specific, and each
6 system had their individual components there. So the
7 same list of the components that you see here for the
8 instrument air system, in Section 3 there was an
9 instrument air table with these same components. So
10 you didn't need to link them the way we're doing here,
11 because they each sort of stood on their own.

12 MEMBER POWERS: So now if I'm interested
13 in instrument air, I have to shuffle through two
14 tables.

15 MR. BURTON: Yes.

16 MEMBER SIEBER: Yes.

17 MEMBER POWERS: Why? That's ridiculous.
18 That is a stupid thing.

19 MR. BURTON: Let me -- well --

20 PARTICIPANT: Why don't you tell us how
21 you really feel about it.

22 MEMBER POWERS: That's ridiculous that I'm
23 going to look system by system. I'm not going to look
24 -- you just make it impossible to look at.

25 MEMBER SIEBER: You're just old-fashioned,

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1 you need two computers.

2 MR. BURTON: Well, if it helps, you're not
3 alone in your thought from some people. There are
4 people who feel very strongly about this, but --

5 MEMBER POWERS: Well, I'm kind of namby-
6 pamby about it.

7 (Laughter.)

8 MR. BURTON: Oh, Okay.

9 PARTICIPANT: Could have fooled me.

10 MR. BURTON: Okay. But this is what we
11 have.

12 MEMBER SIEBER: Those are not hyperlinks.
13 Those are just links, right?

14 MR. BURTON: Yes. I believe that in the
15 application itself they're hyperlinked.

16 MEMBER SIEBER: Okay.

17 VICE CHAIRMAN WALLIS: You mean you can
18 click on them and move, go there?

19 MR. BURTON: Say again?

20 VICE CHAIRMAN WALLIS: What's a hyperlink?
21 I don't know what that is.

22 MR. BURTON: Oh. You just click on it and
23 you'll go to the appropriate thing.

24 MEMBER POWERS: Yes, but I can't come
25 back.

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1 VICE CHAIRMAN WALLIS: You can't come
2 back.

3 MR. BURTON: You'd have to hit the back
4 button.

5 VICE CHAIRMAN WALLIS: The back button,
6 yes.

7 MR. BURTON: But it is set up, though --
8 to get to what you're saying, it is set up to start
9 here and move through Section 3 to the aging
10 management programs. To move backwards, you'll have
11 to use the computer feature that -- hit the back
12 button to go back.

13 VICE CHAIRMAN WALLIS: If you're using
14 paper --

15 MR. BURTON: Say again?

16 VICE CHAIRMAN WALLIS: Using paper, you
17 have to --

18 MR. BURTON: Yes. Now, paper, there's a
19 lot of flipping back and forth.

20 MEMBER SIEBER: Let me ask another maybe
21 not too brilliant question.

22 MR. BURTON: It's all right.

23 MEMBER SIEBER: You have accumulators as
24 the first component type up there. I can think of
25 accumulators in instrument air system, I can think of

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1 accumulators that are in PWRs that put water in. So
2 are there more than one listing for accumulators,
3 because the aging management program for the air
4 system is going to be a lot different than --

5 MR. BURTON: That's true. And to answer
6 your question, although you're getting a little bit
7 ahead of me, what each one of these links -- you
8 notice there are like four links for this accumulator.
9 Each link, when you follow it into the Section 3
10 table, is really tied to a specific material
11 environment and aging effect combination -- one for
12 each.

13 MEMBER SIEBER: Then you should end up in
14 this table with a bunch of accumulators as opposed to
15 one accumulator and a list of four or five references.

16 MR. BURTON: Well, let me -- I understand
17 where you're going. Let me try and give you an
18 example. Let's say we had a system that had air tanks
19 as well as water tanks, both.

20 MEMBER SIEBER: Okay.

21 MR. BURTON: Now, obviously, it would be
22 up to the individual applicant how they wanted to
23 group those in these tables. If they were to do it
24 under one component type, called accumulators, what
25 you would see as you follow each of these links, one

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1 of these links would lead you to a borated water,
2 stainless steel --

3 MEMBER POWERS: Yes. So I get to explore
4 each one of them till I find the one I want by random
5 chance.

6 MEMBER SIEBER: Yes. That's sort of the
7 way it is.

8 MR. BURTON: Well --

9 MEMBER SIEBER: And there's a grand
10 opportunity to find the wrong aging management
11 program.

12 MEMBER POWERS: Why do you do these
13 things?

14 MR. BURTON: Well, let me give you a
15 little bit of history, okay? Even the links were not
16 originally envisioned. You all were briefed during
17 the development of GALL and the demo project and all
18 that. The links were not part of that. In fact, what
19 was going to happen was that you were going to have
20 this table, the Section 3 tables. As I explained to
21 you, they were going to be set up with no link at all.
22 And what happened was probably within --

23 MEMBER POWERS: Is this a deliberate
24 attempt to obscure the information?

25 MR. BURTON: No, it's not deliberate.

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1 It's not deliberate.

2 MEMBER POWERS: To render the review
3 difficult?

4 MEMBER SIEBER: This is to make everything
5 like the Hatch report.

6 (Laughter.)

7 MEMBER POWERS: Oh, we're trying to make
8 the Hatch report look good. Now I understand.

9 MR. BURTON: The intent of developing the
10 GALL program was really to try and take credit for
11 existing programs. That's really what it was all
12 about. Management of a lot of these components is
13 very well-established, it's common across utilities.
14 Why not sort of grant blanket acceptance of that, and
15 then all they have to do is credit the thing?

16 MEMBER POWERS: Why don't they just send
17 in a postcard, "Please extend my license," you stamp
18 it, "yes," and send it back to them, and we can
19 circumvent all this?

20 MR. BURTON: Well, I don't know that we'd
21 have a lot of public confidence behind that.

22 MEMBER POWERS: Well, the public isn't
23 going to be able to read what they got.

24 MR. BURTON: Well, and that's one of the
25 reasons why I wanted to come in front of you, because

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1 I knew that this was going to be controversial.

2 MEMBER SHACK: Before you remove the table

3 --

4 MR. BURTON: Oh, sorry.

5 MEMBER SHACK: -- why don't I just get a
6 single link for the accumulator in the instrument air
7 system?

8 MR. BURTON: Because I --

9 MEMBER SHACK: And in some other system I
10 get a link to the accumulator for the feedwater
11 injection.

12 MR. BURTON: Oh, okay.

13 MEMBER SHACK: Since I've got a table for
14 a system, why do I have links to every accumulator?

15 MR. BURTON: Okay. And, see, we haven't
16 gotten to the Section 3 tables. What these links are
17 are not to different accumulators, they are to
18 different material environment aging effects.

19 MEMBER SIEBER: Right.

20 MR. BURTON: That's what you'll see here.
21 Like, for the --

22 MEMBER SHACK: But everything is related
23 to the accumulator in the instrument air system.

24 MR. BURTON: Yes. What materials,
25 environments and aging effects that the accumulators

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1 in the instrument air system are subject to. And each
2 one of these links you to each aging effect and how
3 it's managed. These are good questions. This is
4 exactly what I expected to get. That's why I wanted
5 to get in front of you.

6 MEMBER SHACK: So I have four aging
7 effects for accumulators, and this essentially links
8 me to the four aging effects? Is that what I have?

9 MR. BURTON: Yes. And in fact, you notice
10 that some say 331, 332? The first three numbers, at
11 least for Fort Calhoun, 331 means Table 3.3-1, Item 7,
12 3.3-1, Item 13. And you'll see that when I get to --

13 CHAIRMAN BONACA: The accumulators is easy
14 because you don't have that many but talk about
15 tubing. Does it mean for tubing that there are -- for
16 all tubings in the plant there are only five
17 environmental effects?

18 MEMBER SHACK: Instrument air. This is
19 just for instrument air.

20 MEMBER RANSOM: That's the point I missed.
21 That's the point I missed, and so go back to the
22 beginning of the process. If I want to know about
23 instrument air's accumulators, those four references
24 there will tell me about the accumulators in
25 instrument air operating in different environments.

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1 MR. BURTON: Yes. And the aging effects

2 --

3 MEMBER RANSOM: If I click on one, I won't
4 end up in the RCS accumulators.

5 MR. BURTON: I certainly hope not. That
6 would be bad. That would be very bad.

7 MEMBER SIEBER: So you actually have to
8 read the title.

9 MEMBER RANSOM: You actually have to read
10 it, actually, yes.

11 MR. BURTON: Yes.

12 MEMBER RANSOM: We haven't figured out how
13 to avoid that.

14 MR. BURTON: Okay. So this is the first
15 change in Section 2, okay? Good questions. This is
16 exactly --

17 VICE CHAIRMAN WALLIS: But it would help
18 if you had Table 3.3-1 whatever as well to look at, so
19 you can see what's --

20 MR. BURTON: Actually, later on, I am
21 going to run --

22 VICE CHAIRMAN WALLIS: What happens if
23 it's not Table 3.3, it's Table 3.1, so it's about
24 something else.

25 MR. BURTON: Well, I am going to explain

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1 that too.

2 VICE CHAIRMAN WALLIS: Okay.

3 MR. BURTON: Give me one minute here.

4 MEMBER SIEBER: Before you take that off,
5 under accumulators, does that mean the aging
6 management review results links all of them apply or
7 one of the list you have may apply?

8 MR. BURTON: No.

9 MEMBER SIEBER: All of them do.

10 MR. BURTON: All of them have some
11 application for this component at Fort -- in this
12 case, Fort Calhoun.

13 MEMBER SIEBER: Regardless of where that
14 accumulator is in that system.

15 MR. BURTON: Right. Now, let me -- now
16 that you've said that, I'm jumping the gun here, you
17 may have a link that leads to a particular material
18 environment combination, and ultimately the call may
19 be that there's on aging effect that requires
20 management, but it's still documented, okay?

21 MEMBER SIEBER: All right.

22 MEMBER SHACK: Jacks regardless, the only
23 accumulator aging management I'm going to see is for
24 the accumulator in the instrument air system.

25 MR. BURTON: In the instrument air system.

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1 If there's an accumulator for another system, you'll
2 see that accumulator in a different table for that
3 system.

4 MEMBER SIEBER: But it could have that
5 same link.

6 MR. BURTON: It could have that same link,
7 that's true.

8 MEMBER SIEBER: If its environmental
9 condition was the same.

10 MR. BURTON: In fact, you will see the
11 same links repeated, not only within the same system
12 but across systems.

13 CHAIRMAN BONACA: Let me ask you this now.
14 If I look at the ECCS accumulators, where will I find
15 them? I mean I understand there will be a table that
16 says ECCS accumulators, whatever you call them. Will
17 it be in a grouping of reactor coolant system
18 components?

19 MR. BURTON: Yes. You guys are way ahead
20 of me. I was going to explain all of that. Let me go
21 to the next --

22 CHAIRMAN BONACA: Okay.

23 MR. BURTON: I think the next slide will
24 actually explain it.

25 CHAIRMAN BONACA: All right.

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1 MR. BURTON: Section 3 -- that's all I
2 wanted to say about Section 2 because that's really
3 the only change. Section 3, all of the individual
4 systems have been rolled up into six broad what we
5 call system structural groups: 3.1, reactor systems,
6 3.2, ESF. So to answer your question, any of the ESF
7 systems -- HPSI, RCIC, containment spray -- would be
8 in 3.2. Three point three is auxiliary systems, and
9 as you all know, the auxiliary systems are just all
10 kinds of things: water, raw water, component cooling
11 water, ventilation --

12 CHAIRMAN BONACA: Instrument air, right?

13 MR. BURTON: Instrument air.

14 CHAIRMAN BONACA: That's what I thought.

15 MR. BURTON: All of it gets caught in the
16 auxiliary system.

17 VICE CHAIRMAN WALLIS: Seems to me in
18 reviewing this thing I might not need Section 2 at
19 all.

20 MR. BURTON: Whoa, okay. I want you to
21 hold that question, because towards the end there is
22 the question of how we do a comparison between the
23 plant's program versus GALL. But comparing the
24 plant's program --

25 VICE CHAIRMAN WALLIS: Is GALL organized

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1 in the same way?

2 MR. BURTON: Well, yes. The GALL tables
3 look like Section 3 when I show you the example.

4 VICE CHAIRMAN WALLIS: So you tried to
5 make Section 3 more compatible with GALL, is that
6 what's happened here?

7 MR. BURTON: Yes. That's exactly what's
8 happened. But the comparison between the plants'
9 programs versus GALL that in and of itself is not what
10 the rule requires. What the rule requires is a
11 demonstration that those individual plant-specific
12 components will be adequately managed. So there is an
13 additional step beyond just saying that, "Yes, your
14 programs are consistent with GALL." Okay.

15 Each of those six system and structural
16 groups that I had on the previous slide, under each
17 one of those you can have up to three different
18 tables, all right? The first table, 3.X -- the X
19 tells you which of those six groups you're in. Three
20 point 1 dash 1 would be reactor systems, 3.2-1 would
21 be ESF systems. That's what the X means here. But
22 3.X-1, those tables represent structures and
23 components that were evaluated in GALL, okay? Three
24 point X dash 2 Table represents components that were
25 not evaluated in GALL. And 3.X-3 Table represents

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1 structures and components that were not evaluated in
2 GALL, but the applicant has made a determination that
3 the GALL AMR results are applicable to that component.

4 This dash 3 table, this is only for Fort
5 Calhoun. Robinson, Ginna, Summer, Bay, they haven't
6 taken that approach. They've actually incorporated
7 this class of components into one of the other two
8 tables, all right? But, in general, you're gong to
9 see at least two tables, and in the case of Fort
10 Calhoun, three. And that's what each of them
11 represent. Okay? As soon as I show you an example,
12 it will --

13 MEMBER SIEBER: It will just come
14 together.

15 MR. BURTON: -- clear as mud, right? All
16 right. Let me talk about the 3.X-1 Table. These are
17 the ones that have components that were evaluated in
18 GALL. In the table, these are the different table
19 headings and then there's a -- in the discussion
20 column, at least with Fort Column, it will discuss
21 what material, what environment the component is made
22 of, and we'll identify any aging management programs
23 that they're crediting for managing that. And I'm
24 going to show an example right now.

25 This is a page out of Table 3.1-1, 3.1

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1 meaning that it has to do -- it's a reactor systems
2 table, and here you can see exactly what makes up
3 reactor systems -- the vessel, internals and the RCS.
4 Those three together are rolled up into this reactor
5 systems table. Here's the link. The link that we saw
6 in Section 2 here's where it gets picked up in Section
7 3.

8 These four columns come directly out of
9 GALL. These four columns are both in GALL as well as
10 the SRP, our review guidance.

11 VICE CHAIRMAN WALLIS: So they have the
12 same row number?

13 MR. BURTON: Now, again, when you go to
14 GALL in the SRP this link is not there, okay? We had
15 to sort of superimpose these numbers when we were
16 actually trying to do the review. These were not --
17 again, the linkage was not --

18 VICE CHAIRMAN WALLIS: There's no cross-
19 link to GALL here? How can I find this in GALL if I
20 want to --

21 MR. BURTON: Okay. What the 01 means --
22 the way you would do it is 01 means it's the first
23 item in the table, whether it's the table out of GALL,
24 in Volume 1 of GALL, or whether it's in the SRP. The
25 first row in that table is this one. Okay? So that's

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1 how you go from one to the other.

2 Here are the columns, component type,
3 aging effect and mechanism. This aging management
4 program, this is the program that is recommended by
5 GALL. This is not the program that the applicant may
6 be crediting, this is what GALL says ought to be done,
7 okay? And in this case, it's actually a TLAA. If
8 GALL recommends further evaluation, it will say so
9 right here.

10 CHAIRMAN BONACA: So that row number tells
11 me that this is covered by GALL, it is a reactor
12 system component, and it is the first line in the
13 GALL.

14 MR. BURTON: Exactly. That's exactly
15 right. Three point one means it's a reactor system,
16 dash one means that it's in this table, meaning it's
17 a table of components that was evaluated in GALL, and
18 it's the first item in the GALL table. Okay?

19 Last column is the discussion column. You
20 can see there's a lot more verbiage here, and it needs
21 to be read, okay, because in here is where you find --
22 for instance, this happens to be a TLAA, tells you
23 where you can find the TLAA evaluation. They do make
24 definite statements consistent with NUREG-1801, that's
25 GALL. Gives you the material, the environment that

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1 it's exposed to, in this case, again, TLAA, cumulative
2 fatigue damage. They'll give some discussions there.
3 If they are taking exceptions, they mention that
4 there. This is an important column for the reviewer.
5 Okay?

6 VICE CHAIRMAN WALLIS: How do I know
7 they've done it right? What do I have to do to check
8 out that they've done something right? I have to go
9 to Section 4.3?

10 MR. BURTON: Okay. Again, I'm going to
11 give an example of that, but -- I'm going to talk
12 about what the reviewer has to do in each of these
13 circumstances. If you can give me just a few more
14 minutes, I'm planning on going through that.

15 PARTICIPANT: Butch, if they were just
16 totally subscribing to GALL, what would be some words
17 in that discussion column?

18 MR. BURTON: They would say --

19 PARTICIPANT: They would say, "fully
20 accept" or "consistent with 1801," period?

21 MR. BURTON: They would say, "consistent
22 with 1801," and give some of the material environment
23 information. Again, what you're used to seeing in
24 these Section 3 tables is the first column is a
25 component, the same component that you saw in Section

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1 2, along with its material, environment, aging effect
2 and aging management program. Because GALL is sort of
3 a pre-approval of how to manage certain components,
4 they don't provide -- the don't normally provide the
5 material and environment as a matter of course in the
6 table. Now, we can get it over here, but, presumably,
7 if this is a GALL item, if you really wanted to
8 confirm what that material and environment was, you'd
9 go to GALL and confirm that.

10 VICE CHAIRMAN WALLIS: Now, if all they
11 need here is a copy and paste which says, "FCS aging
12 management reviews are consistent with those reviewed
13 and approved in NUREG-1801," they can simply put it in
14 every blank space.

15 MR. BURTON: If it applies.

16 VICE CHAIRMAN WALLIS: How do we know that
17 they've done it.

18 MR. BURTON: Ah. Again, that --

19 VICE CHAIRMAN WALLIS: How do you know?
20 I'm not going to check they've done it.

21 MR. BURTON: Yes. Right. I'm just
22 explaining exactly what they are providing to us.
23 Obviously, there is some confirmation that we have to
24 do, but the confirmation is actually different than
25 what we've done in the past for GALL items, and I'll

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1 talk about that in just a few minutes.

2 Okay. The other two tables, 3.X-2, these
3 are tables that are not evaluated in GALL. When you
4 look at that table, it looks just like what you're
5 used to seeing. It's got the material, the
6 environment, the aging effect, the aging management
7 program, just like you're used to seeing. And for a
8 component that was not evaluated in GALL, the reviewer
9 is going to have to do the traditional kind of review
10 that he or she has always done.

11 Three point X dash three tables, these are
12 components that were not evaluated in GALL but they
13 could have been, okay? In this case, we get the
14 traditional six columns -- material, environment,
15 aging effect and so on -- plus, at least in Fort
16 Calhoun's case, there are two additional columns where
17 they make the argument why this component, even though
18 it was not evaluated in GALL, why they should be able
19 to take credit for a GALL AMR result. They make the
20 case in those last few columns, and, again, I'll show
21 you some examples of how that works.

22 This is an example of a dash-2 table.
23 This should look very familiar. This is what you all
24 always look at with the exception of the link, okay?
25 Component type, material, environment, aging effect

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1 and the program, okay? A dash-3 table looks just like
2 the dash-2 table with those additional last two
3 columns. Applicable GALL AMR result number, they're
4 linking you back to the dash-1 table AMR result that
5 they think applies to this component or group of
6 components. And here's the justification. And what
7 the justification usually is is they say, "Same
8 material, same environment, subject to the same aging
9 effects. We should be able to take credit for the
10 same GALL AMR result." That's what you will usually
11 see there. And then they'll actually link it to where
12 you can find that in GALL.

13 Okay. That was the Section 3 tables. Now
14 I'm going to talk about the aging management programs.
15 That's the other area that has changed significantly.
16 Okay. When you look at the aging management programs,
17 they fall into three categories. They are either
18 consistent with GALL, 100 percent no change, no
19 difference or they are generally consistent with GALL
20 but they take some sort of deviation from GALL or
21 they're not consistent. And in the next few slides,
22 I'm going to talk about what the reviewer has to do in
23 each of these circumstances.

24 Some of the AMPs are common, like water
25 chemistry is the perfect example. You credit water

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1 chemistry in the reactor systems group, in the ESF
2 group, in the auxiliary system group, it cuts across
3 system groups, so that we call that common. There are
4 other AMPs that are system group-specific, like one of
5 the programs they have is the Reactor Vessel Integrity
6 Program. That only applies in 3.1, the reactor
7 systems, so it's system group-specific.

8 Okay. Now I'm going to start talking
9 about what we do when we review this stuff. Okay.
10 There is a new review approach. No change in review
11 approach in Sections 2 and 4. In Section 2, we still
12 have the same goal, which is to make sure that they
13 have identified all the structure systems and
14 components that are within the scope of the rule, that
15 they haven't left anything out, number one; number
16 two, for those systems that are within the scope of
17 the rule, that they have not left out or omitted any
18 structures or components that should be subject to an
19 AMR. That is our goal in Section 2; that has not
20 changed.

21 Similarly, in Section 4 where we do the
22 TLAs, we don't do anything any different, we're still
23 going -- making sure that any analyses or calculations
24 that are time-dependent, dependent on 40 years, that
25 they do one of three things. Either the evaluation,

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1 as it currently stands, is good for the entire 60
2 years; they have expanded the evaluation to include 60
3 years or they have chosen to actually manage the
4 component. Those are the three options under Section
5 4, okay, and that hasn't changed.

6 Significant change in Section 3 and
7 Appendix B, which is the aging management programs.
8 Now, in our documentation, in our SER, the programs
9 are actually in Appendix B of the application, but in
10 the SER they are in Section 3, okay? So there is --
11 and I think at least the last few have done that. I
12 think you've seen that before.

13 Okay. Staff performs its review in three
14 parts. Part one is to review the aging management
15 programs. That's kind of the heart of everything.
16 Part two is a review of the aging management review
17 results in the Section 3 tables. And then, finally,
18 there is a review of the adequacy of aging management.
19 This is what the rule requires, okay? And I'll talk
20 about that when we get there, because we had some
21 discussions about exactly what that entails.

22 Okay. Let me talk about the first part,
23 the review of the AMPs. There are three types of
24 AMPs, I told you. They are either completely
25 consistent with GALL, consistent with GALL with

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1 deviations or not consistent. This first one, these
2 are the ones that are completely consistent with GALL.
3 If that's the case, what does the reviewer do?

4 VICE CHAIRMAN WALLIS: Nothing.

5 MR. BURTON: Right. First thing is if
6 they say that they are consistent, the reviewers here
7 in headquarters don't do anything, at least that was
8 the original direction that we got. In the last few
9 days, we've been going back and looking at that again
10 to see whether or not we're really comfortable with
11 that. But the idea is that GALL is considered a
12 topical report, and with topical reports, generally,
13 when they invoke the topical report, there's not a
14 whole lot of background review that we do. We sort of
15 accept that that's the case. Now, with GALL, that's
16 where we hope to get further down the line, but right
17 now it's new, it's just now being tested.

18 Right now the staff is doing more than
19 that. We're not just taking a hands-off approach. In
20 fact, what we do the claim of consistency, when they
21 say that they are consistent, even though the
22 reviewers here in headquarters don't put any further
23 effort into it, we do check that claim during the AMR
24 inspection, and I just went through that with Fort
25 Calhoun. So we have expanded the scope of the AMR

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1 inspection somewhat. And, again, in the last few days
2 we've had some discussions about whether this is
3 really the best way to go. But right now this is how
4 we check that claim of consistency.

5 MEMBER FORD: Now, in situations -- GALL
6 was produced a couple of years ago, and some of these
7 things change your time, for instance, the HP
8 degradation issues. So how does the staff take into
9 account it's a moving target and GALL will be changed,
10 but it may not be changed in time for this particular
11 review?

12 MR. BURTON: Okay. Well, let me talk
13 specifically about vessel head penetrations and Davis-
14 Besse and how we capture that, because, actually, the
15 approach that we use to capture that sort of operating
16 experience that's coming along -- it's really
17 independent of GALL, okay? When we know that there is
18 Davis-Besse, head degradation, obviously a problem,
19 that is a right now problem as opposed to a license
20 renewal problem. The concept is that that issue is
21 going to be resolved in Part 50 space, right now, and
22 those resolutions are going to become part of plants',
23 individual plants' CLB. And with license renewal,
24 whatever the CLB is going into the period of extended
25 operation, that is what is going to be maintained.

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1 And I will just tell you, though,
2 specifically for vessel head penetrations and Davis-
3 Besse, we in fact do have -- have issued either RAIs
4 or open items to the applicants because it hasn't been
5 resolved yet, what we've asked for is a commitment to
6 implement whatever comes out the final resolution of
7 the issue. So we don't ignore it, we don't ignore it.
8 In fact, we pay quite a bit of attention to it. Did
9 I answer --

10 MEMBER FORD: Yes. Yes.

11 MR. BURTON: Okay. So staff here in
12 headquarters doesn't do the review. The claim of
13 consistency is actually done during the inspection.
14 The reviewer does, though, look at the FSAR
15 supplement, which is the summary description of the
16 programs and activities. The reviewer still does have
17 to do that, has to do that regardless.

18 MS. FRANOVICH: Hey, Butch? Do you mind
19 if I add something here?

20 MR. BURTON: No.

21 MS. FRANOVICH: This is Rani Franovich of
22 the License Renewal staff. The claim of consistency
23 being confirmed by the AMR inspection is currently
24 under review. The inspection teams have found that
25 some of their reviews of the aging management programs

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1 against the GALL report involve judgment calls: How
2 consistent are the applicants with the GALL report
3 that are better left to the staff to decide the
4 adequacy of?

5 So it may be that we change our process
6 yet again to involve a table top audit or something of
7 that nature here in headquarters where the reviewers
8 can actually review the aging management programs at
9 the plants against the GALL criteria to see if they
10 are sufficiently consistent to say that, yes, indeed,
11 they are consistent with the GALL report. That's all
12 I wanted to add, Butch.

13 MR. BURTON: Okay. No, that's good.
14 That's what we are talking about now. This is an
15 example of a GALL program that the claim is that they
16 are completely consistent. As you can see, half a
17 page as opposed to what you're used to seeing with the
18 ten program elements that go on for two or three
19 pages. Very short and sweet. The only thing they
20 need to address is their own plant-specific operating
21 experience, and that's all that the reviewers here in
22 headquarters make a determination about. So this is
23 what you see when they claim to be 100 percent
24 consistent. Okay?

25 CHAIRMAN BONACA: Okay. No. Actually,

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1 some of the elimination I appreciate because
2 oftentimes it's kind of repetitive. But the operating
3 experience will be every time as planned, right?

4 MR. BURTON: Say that again, I'm sorry.

5 CHAIRMAN BONACA: There will be always a
6 paragraph about operating experience.

7 MR. BURTON: Yes. Yes. Because operating
8 experience is one of the ten program elements.

9 CHAIRMAN BONACA: I understand that.

10 MR. BURTON: But because it's plant-
11 specific, you can't incorporate it into --

12 CHAIRMAN BONACA: That's right. Exactly.

13 MR. BURTON: -- one of the GALL programs.

14 VICE CHAIRMAN WALLIS: It's so difficult
15 for me to conclude that because they found nothing,
16 the inspection was effective.

17 MR. BURTON: Say again, I'm sorry.

18 VICE CHAIRMAN WALLIS: It's difficult for
19 me to conclude that because they found no
20 deterioration, the inspection was effective. They may
21 just didn't try very hard.

22 MR. BURTON: You mean the inspectors?

23 VICE CHAIRMAN WALLIS: I don't know. It's
24 just I don't know how you conclude that the inspection
25 was effective since they found no significant age-

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1 related deterioration. Maybe they didn't try very
2 hard.

3 MR. BURTON: Okay. Well, I will put out
4 there that I'm sure that that is always a possibility,
5 but I will certainly say that we've gone through this
6 already with Fort Calhoun, and I can assure you, and
7 particularly because it was the first one, we gave
8 Fort Calhoun a very, very thorough scrubbing. And in
9 fact when I come back, I'm actually going to be coming
10 back to talk about this in June, but the lead
11 inspector will also be here and --

12 VICE CHAIRMAN WALLIS: I guess these are
13 separate statements. You're not concluding that
14 because they didn't find anything, they were
15 effective. There's a completely different measurement
16 of effectiveness somewhere else you guys perform.

17 MR. BURTON: Of the aging management
18 programs?

19 VICE CHAIRMAN WALLIS: Right.

20 MR. BURTON: Yes. After --

21 VICE CHAIRMAN WALLIS: Well, the In-
22 Service Inspection Program, someone's dug into that
23 and said, "How do they do it, how often do they do it
24 and everything."

25 MR. BURTON: Right. What I can tell you

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1 -- well, let me just tell you briefly what we did with
2 Fort Calhoun. What Fort Calhoun did, and, again, this
3 is not a Fort Calhoun presentation, but for each of
4 the aging management programs for which they claimed
5 that they were consistent, they actually had a series
6 of binders, engineering analyses, where they broke
7 down the GALL aging management literally line by line.
8 And next to it they said, "Here are the programs that
9 we have on-site that we use to make sure that they are
10 consistent." What the inspectors do is they break out
11 -- like if it's a walk-down or something like that,
12 they actually pull out those procedures and sit with
13 the cognizant engineer and say, "Okay, show me the
14 consistency."

15 VICE CHAIRMAN WALLIS: Do they look at the
16 record of what they actually did with those
17 procedures?

18 MR. BURTON: Yes. Yes. And --

19 VICE CHAIRMAN WALLIS: Look at the log of
20 the walk-downs and everything?

21 MR. BURTON: Absolutely.

22 VICE CHAIRMAN WALLIS: Okay. Good.

23 MR. BURTON: And in fact, one of the
24 things that I asked the reviewers to do for Fort
25 Calhoun back here, back in headquarters -- some of

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1 them feel that their hands are tied somewhat, because
2 they're not supposed to look at anything if it's
3 considered consistent. But I said if there's anything
4 in particular that you really want the inspection team
5 to look at, by all means tell us. And I had a long
6 list. So there was a lot of phone calls back and
7 forth during the two-week AMR inspection actually
8 digging into this, and in some cases we actually
9 brought some of that documentation back for the
10 reviewers to look at. But we'll get into that in a
11 lot more detail when I come and talk about Fort
12 Calhoun.

13 VICE CHAIRMAN WALLIS: The detail will be
14 before the Subcommittee, though, won't it?

15 MR. BURTON: Yes. Okay. Second type of
16 AMP that they say they're consistent but they have
17 some type of deviation. What does a reviewer do in
18 that situation? Okay. What the reviewers here do --
19 the claim of consistency part is still confirmed
20 during the inspection, but here in headquarters we've
21 got to look at that deviation. What is the effect of
22 that deviation from GALL? Is it acceptable? Is it
23 the AMP with that deviation still adequate to manage
24 the aging that's being taken credit for? And, again
25 whether the FSAR supplement is an adequate

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1 description. So when they deviate, we have to follow-
2 up on all deviations. Okay?

3 In Fort Calhoun's situation, the
4 deviations fell into three general categories. There
5 were clarifications, there were exceptions, and then
6 there were enhancements. And any deviations that they
7 take from GALL have to be investigated and an
8 assessment has to be done.

9 And in fact, this next example is at Fort
10 Calhoun, their Cooling Water Corrosion Program. And
11 I chose this one for an example because it has all
12 three types of deviations. The first two bullets are
13 clarifications that they're making. In this case,
14 they claimed that they're consistent with GALL AMP
15 11M-20, which is open-cycle cooling water, and 11M-21,
16 closed-cycle cooling, but they're taking certain
17 deviations. In open-cycle cooling, a program
18 description and program elements 3, 4, 5 and 6,
19 external codings, are addressed not by this because if
20 you go to GALL, the GALL for open-cycle cooling talks
21 about codings but at Fort Calhoun external codings are
22 addressed not here but in another AMP called general
23 corrosion of external surfaces. So they make that
24 clarification.

25 Similarly, there's -- each of these GALL

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1 AMPs have chemistry-related discussions in them. Fort
2 Calhoun has shifted those not from this particular AMP
3 but in their chemistry AMP, so they make that
4 clarification. Similarly, there are exceptions --
5 here's an exception. Again, this exception is to GALL
6 21, the closed cycle. It affects program elements 3,
7 4 and 5, and this has to do with maintenance of fluid
8 flow and some other stuff. You can read that, but
9 they take an exception, another deviation from GALL.

10 VICE CHAIRMAN WALLIS: I would think that
11 the corrosion is affected by the fluid flow. You
12 can't say that fluid flow is an active function. It
13 affects static functions.

14 MR. BURTON: Okay. Well, let me -- okay.
15 I guess I need to explain exactly what the exception
16 is. When you read GALL what we're finding is that
17 there are areas of GALL that need to be changed, and
18 this is one of them. When you read the closed-cycle
19 cooling water system, it gives the impression that
20 this EPRI document, closed-cycle cooling water
21 chemistry guidelines, that it gives some frequencies
22 and in fact it doesn't. Okay? So that's what they're
23 explaining here. Okay? Performance testing and other
24 active system function testing is not performed on an
25 18-month or five-year frequency in accordance with

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1 EPRI, because this EPRI document does not address this
2 criteria. So they're saying, "We're taking exception
3 to what you're seeing in GALL because GALL really is
4 not right." And, again, we're keeping track of those
5 things too for later.

6 MEMBER FORD: And so how do your reviewers
7 resolve such a situation?

8 MR. BURTON: Okay.

9 MEMBER FORD: Go into the technical
10 literature and do their own analyses or what?

11 MR. BURTON: Yes. They'll look at EPRI.
12 If the intent of the GALL Program was to do this on a
13 certain frequency and we just got the documentation
14 wrong, the underlying issue, which is how often are
15 you going to do it, still applies. So I would think
16 that what a reviewer would do would look at that
17 aspect, develop an RAI basically saying, "We
18 understand the exception you're making, but you still
19 have to address the underlying issue." So that's how
20 we would -- and then they'd obviously give us a
21 response, and we'll determine whether it's adequate or
22 what. So does that make sense?

23 MEMBER FORD: Yes. But you're asking the
24 licensee, Fort Calhoun in this case, to go away and
25 look at the corrosion literature to come up with a

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1 rationale why they should be doing this exception to
2 this particular --

3 MR. BURTON: Yes. Why is this exception
4 okay? And, again, I don't want to talk specifically
5 about this because I don't know, but the exception
6 that they're taking they may say, in fact, that it's
7 not -- we don't do it on a regular frequency, we may
8 do it just based on what we do see and will see the
9 next time, I don't know.

10 VICE CHAIRMAN WALLIS: I don't understand
11 this at all. I mean it's something about Cooling
12 Water Corrosion Program, right? And it talks about
13 we're only concerned with the pressure boundary, not
14 in the maintenance and fluid flow, which obviously has
15 some effect on water corrosion. We don't do this
16 thing because EPRI doesn't consider it, and then an
17 unobstructed testing and heat transfer performance are
18 performed. Well, heat transfer performance has
19 nothing directly to do with Cooling Water Corrosion
20 Program, so this may just be a whole lot of fuzzy snow
21 that --

22 MR. BURTON: Okay.

23 VICE CHAIRMAN WALLIS: How do you make
24 sense of that paragraph?

25 MR. BURTON: Well --

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1 VICE CHAIRMAN WALLIS: Does the reviewer
2 make any sense of that paragraph?

3 MR. BURTON: Hopefully, the reviewer does,
4 and unfortunately the reviewer is not here to talk
5 about that, but I know you guys are starting to home
6 in on the words that are here, and I don't want --
7 that wasn't what I wanted -- I want you to just kind
8 of see how we do things.

9 VICE CHAIRMAN WALLIS: I guess that's the
10 way I'd review this thing, and the whole thing is an
11 enormous great big monster to review.

12 MR. BURTON: Yes.

13 VICE CHAIRMAN WALLIS: I just look at one
14 or two things and say does that make any sense to me?
15 And if doesn't, I'm going to say why should I believe
16 the whole thing? That's the only way I can review
17 this document.

18 MR. BURTON: Well, okay. Well, let me say
19 this: The reviewers do know the GALL programs, that
20 they do know. And if there are exceptions that are
21 being taken, okay, they have a good understanding of
22 if you take this exception, how is that impacting on
23 what is the intent of the GALL Program? And if the
24 applicant in the LRA doesn't have what the reviewer
25 would consider a reasonable justification for the

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1 exception, they need to ask an RAI and dig into it.
2 And at this point, that's all I can tell you.

3 VICE CHAIRMAN WALLIS: I just wonder, how
4 do we have any assurance that these reviewers
5 understand their job, that they know how to do it and
6 that they do it properly when they're confronted with
7 this snow of information like this?

8 MR. BURTON: Well, the one thing I can
9 tell you is that actually what I'm presenting to you
10 now is a watered down version of about a three- or
11 four-hour training session that we gave to the entire
12 technical staff --

13 MS. FRANOVICH: November or --

14 MR. BURTON: -- November maybe.

15 MS. FRANOVICH: -- October.

16 MR. BURTON: We've done training sessions
17 --

18 VICE CHAIRMAN WALLIS: I'm not sure that
19 training is going to be helpful if they don't
20 understand how heat transfer and water flow will
21 affect corrosion.

22 MS. FRANOVICH: Can I ask a question that
23 may clear this up, Butch? Could it be that the
24 exceptions have to do with the loss of material, aging
25 effect, and that the program criteria that address

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1 falling, loss of heat transfer, that kind of thing is
2 consistent with the GALL report? I haven't done a
3 GALL report review so I don't know if that's the case,
4 but could that be an explanation, Butch, of why those
5 things are not addressed in the exceptions?

6 MR. BURTON: That could be, that very well
7 could be. But I guess I want -- I don't want you to
8 go away feeling that the staff, number one, doesn't
9 understand how to deal with these issues, because --

10 VICE CHAIRMAN WALLIS: They must be pretty
11 smart people, it seems to me.

12 MR. BURTON: Well, yes. Well, actually
13 they are, they are very smart people. And then even
14 though we are capturing this in GALL, these are not
15 new issues. These are issues that have come up since
16 the beginning of license renewal, and we've got
17 reviewers who have been there since the beginning.
18 They understand the technical issues, and they
19 understand the implications of taking an exception to
20 GALL and how they need to follow up on that.

21 MR. KUO: If I may interject, I'm sorry.
22 This is PT Kuo, License Renewal. The reviewer who is
23 going to do the review on this application are the
24 same reviewers that have been doing the license
25 renewal. So the difference here is only the format

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1 difference here we are talking about.

2 VICE CHAIRMAN WALLIS: So we have a
3 mechanism for common cause failure here. It seems to
4 me the only way any error is revealed here is if
5 there's some sort of an accident at Fort Calhoun that
6 turns out to be because something corroded because it
7 wasn't properly monitored or managed or something.
8 And then we find out, gee whiz, why did that happen?
9 And it turns that when you investigate, it was the
10 staff allowed them to do something because they didn't
11 understand what they were doing. That's the only way
12 that these things would ever emerge if there were.
13 I'm not saying there are going to be any errors in
14 reviewing but if there were, I don't quite know how
15 they're detected.

16 MR. BURTON: Well, you know, I think as a
17 practical matter you're right, you're right. All a
18 reviewer can do is go on their knowledge, and it's not
19 just their knowledge, they have access to the entire
20 knowledge of the Agency, okay, to say whether or not
21 this deviation that they're taking is okay.

22 VICE CHAIRMAN WALLIS: But can the
23 reviewer say, "I don't understand it; therefore, I
24 can't make a decision"?

25 MR. BURTON: Oh, absolutely. That's where

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1 the RAIs come from.

2 VICE CHAIRMAN WALLIS: Do they often say
3 that many times?

4 PARTICIPANT: Many times.

5 VICE CHAIRMAN WALLIS: Many times. Okay.
6 Thank you.

7 MR. BURTON: Not every time, but, you know
8 --

9 MEMBER FORD: I've got a process question.

10 MR. BURTON: Okay.

11 MEMBER FORD: This last one you've just
12 been talking about points up a situation where you're
13 saying that the GALL report, or specifically this EPRI
14 document, is merely incomplete in certain ways. And
15 if it's incomplete for Fort Calhoun, it's incomplete
16 for everybody who's going to use that particular GALL
17 instruction. Therefore, is there a feedback circuit
18 to going back and restructuring the GALL to take into
19 account that academic or that factual --

20 MR. BURTON: I understand exactly what
21 you're saying.

22 MEMBER FORD: Is there a process by which
23 GALL gets rapidly changed, so we don't have to keep
24 going through this --

25 MR. BURTON: Well, I won't -- I guess it

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1 depends on your definition of "rapidly." First of
2 all, Fort Calhoun is the first one to go through this
3 --

4 MEMBER FORD: Yes, I understand that.

5 MR. BURTON: -- so we are just now finding
6 all these little things.

7 MEMBER FORD: Sure.

8 MR. BURTON: What I do is I keep a running
9 tally, okay? The technical reviewers -- very often
10 the same person who is reviewing Fort Calhoun is
11 probably reviewing two or three others, okay? So,
12 certainly, we get that. There's a lot -- in order for
13 this process to work, it requires a lot of crosstalk
14 between reviewers, not only between reviewers who may
15 be reviewing the same AMP but between the AMP
16 reviewers and the reviewers who are looking at the
17 Section 3 tables, because they're not always the same
18 person. So there's a lot of crosstalk that goes on,
19 and we as project managers try to encourage that. And
20 there's a lot of information exchange on just those
21 kinds of things.

22 MR. KUO: Butch, if I can address Dr.
23 Ford's question. I think you are looking for a
24 feedback mechanism. With the lessons learned from
25 this review, yes, we do. We have kept a running log

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1 of what we have found, that GALL may need to be
2 improved or may need to be changed. We have a running
3 log of that. And we have a plan to revise the GALL
4 SRP guidance document. Actually, right now I'm -- we
5 are shooting for '04, next year, to update the entire
6 set of guidance documents. And we are working with
7 the industry to establish a schedule for doing that.
8 In the meantime, some of the license renewal lessons
9 learned issues we have turned that into what we call
10 the interim staff guidance for the industry to use.

11 MR. BURTON: This is the second page of
12 that same program. This is the third type of
13 deviation that we have at Fort Calhoun, which is an
14 enhancement to GALL, where, again, for each of the
15 GALL programs that they're saying they're consistent
16 with for these particular program elements, they are
17 making this enhancement.

18 Usually, enhancements are saying they're
19 going to do more over and above what GALL asked them
20 to do. But, again, each of these deviations the
21 reviewers have to assess the adequacy of the deviation
22 and whether the program with those deviations is still
23 adequate to manage the aging effect for which it's
24 credited. And we made very definite statements in the
25 SER about that.

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1 Programs that are not consistent with
2 GALL. Those that aren't we go back to our traditional
3 review where we evaluate each of the ten program
4 elements. In the SRP, we have a branch technical
5 position on exactly how to do that. So for those that
6 are not consistent, we do it the old way. And, again,
7 look at the summary description of the program to make
8 sure it's adequate.

9 This is an example -- I'm not going to
10 dwell on this. This is what you normally see. This
11 is a program that's not consistent with GALL, so it's
12 got all ten of the program elements. This first one
13 shows the scope, here are the systems that credit this
14 program in the next couple of pages
15 . It's what you've normally seen with an
16 aging management program with the ten elements. So
17 I'm just going to skip through the next few.

18 Okay. That was part one of the review,
19 when we look at the aging management programs. Part
20 two is looking at the Section 3 tables. These are the
21 -- there are program reviewers and then there are AMR
22 results reviewers. These are the people who go
23 through those Section 3 tables and check that claim of
24 consistency. For the 3.X-1 Table, again, components
25 that were evaluated in GALL, two types of information.

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1 First type of information are assessments of
2 structures and components that are consistent with
3 GALL and GALL says it doesn't recommend any further
4 evaluation. That's one type.

5 The other type of information in this are
6 assessments of structures and components that are
7 consistent with GALL, but GALL itself says there are
8 certain aspects that require further evaluation. And
9 if you go into the GALL, it will tell you line by line
10 which are consistent with no further evaluation and
11 which are consistent but require some further
12 evaluation.

13 What does the staff do for that first
14 type, for structures and components that are
15 consistent but no further evaluation is required?
16 Again, just like with the programs, if they say
17 they're consistent, the reviewers here are done,
18 although, again, like I said, we're discussing that
19 may change. But right now that's kind of where we
20 are.

21 The consistency is confirmed during the
22 AMR inspection. And if we find any problems there,
23 the inspectors kick that information back here to
24 headquarters for evaluation by the reviewers here.
25 What we're talking about, as Rani said before, is

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1 rather than putting that on the inspection team, what
2 we'll do is we may have the applicant come in and
3 bring several examples of programs that they claim to
4 be consistent, bring some of the background material
5 and actually go over it.

6 As I mentioned before, reviewers, even
7 though we say that they don't perform the consistency
8 check, if there are particular things that they feel
9 sort of uncomfortable about, they really want to have
10 a little bit more of an in-depth check, they'll call
11 that out and have the inspection team go over that
12 specifically.

13 Okay. Consistent with GALL but GALL
14 recommends further evaluation. Consistency part, AMR
15 inspection team does that. The reviewer does focus
16 his or her review on that recommended further
17 evaluation. And what is involved with that further
18 evaluation is documented in our SRP. So when GALL
19 says further evaluation, well, like what are they
20 talking about, what do I need to look at? The SRP
21 will give them that guidance.

22 Okay. Back again, 3.3 auxiliary systems.
23 And auxiliary systems can have 20 or more individual
24 systems in it, but, again, in the Section 3 tables,
25 they're all rolled up into dash-1, dash-2 or dash-3

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1 tables. I just put this up because this is an example
2 where further evaluation recommended, yes; detection
3 of aging effects is to be further evaluated, yes;
4 plant-specific, yes; TLAA. If you see a "no" here,
5 then it's in that first bin, "no further evaluation
6 recommended." If there is, it will give a "yes," and
7 yo go to the SRP to find out exactly what that
8 evaluation would involve.

9 Three point X dash two tables contain
10 assessments that were not evaluated in GALL. In that
11 case, the reviewer here in headquarters does their
12 traditional pre-GALL review, the way we've always done
13 it.

14 Just very quickly, here's an example of a,
15 again, 3.3 auxiliary system dash-2 table, components
16 that were not evaluated in GALL. In that case,
17 material, environment, aging effect, aging management
18 program. If there's no aging effect that requires
19 management, stainless steel and ambient air, it will
20 say so. And, again, all these are linked, okay, from
21 Section 2.

22 Again, dash-3 tables, Fort Calhoun only.
23 The other plants behind Fort Calhoun do not have this
24 dash-3 table. Reviewer determines if GALL can be
25 credited. Because, remember, in this table, they're

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1 making the justification for why the components in
2 this table should be -- the GALL AMR results should be
3 credited for that component. This is where they make
4 the case.

5 VICE CHAIRMAN WALLIS: Can you give an
6 example of that?

7 MR. BURTON: I'm sure I can. Let's see,
8 the very next -- again, auxiliary system table, dash-
9 3. There is a link 3.3-3, Item 7 in this table. Here
10 are the components. These components were not -- and
11 what's different is apparently these components made
12 of this material, in this environment was not
13 evaluated in GALL, okay, specifically. Aging effect,
14 here's the program that they credit, but they're
15 saying even though these components were not evaluated
16 in GALL, I'm claiming that they could be evaluated
17 under this GALL AMR result.

18 Why? The material is subject to the same
19 environment and aging effect and managed by the same
20 management program as evaluated here. The aging
21 effect is independent of component type. Basically,
22 what they're saying is, "These components -- there is
23 a component here made of this material in this
24 environment and, consequently, has these -- credits
25 that AMP, and we want to apply it for these too.

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1 Technically, GALL didn't include these, but we feel
2 that you can do that." And in that case, the reviewer
3 has to make a call to say whether or not that's
4 acceptable.

5 Okay. This is the part, Part 3. This is
6 the part that is required by the rule. The rule does
7 not say make sure that an applicant's programs are
8 consistent with GALL; that's not what the rule says.
9 What the rule says is that an applicant has to
10 demonstrate adequate aging management for their
11 components.

12 MEMBER FORD: But the metric of adequacy
13 is GALL. So you are looking to GALL.

14 MR. BURTON: Yes. You are looking -- GALL
15 is definitely part of that. That's the first part of
16 being able to make this determination, but I'm going
17 to give you an example of why just doing this
18 comparison is not enough. Say you're looking at
19 structures, and there's a certain way that you're
20 going to manage concrete components. GALL says you do
21 it A, B and C, okay? You look at the applicant's
22 programs and they say, "We're going to do it A, B and
23 C." Great, no problem. You look at steel components.
24 GALL says X, Y and Z; program thing says X, Y and Z.
25 Great.

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1 Now, what you do is you -- okay. Now, in
2 all of that you have not looked at individual plant-
3 specific components, you've looked at AMPs. Now you
4 go and start in Section 2 with those links and say
5 you're looking at links associated with a concrete
6 structural component. You follow the links through,
7 you look at the first link, it links you to the right
8 thing in Section 3, to the right aging management
9 program. Great.

10 You go back, there's a second link for
11 that same component. You follow that, wait a minute.
12 That link is going to a steel aging management
13 program. Something is wrong. So from a reviewer's
14 point of view, just doing that program comparison,
15 that is not enough. You have to actually follow those
16 links through to see where they're going to make sure
17 that they're going to the right place.

18 MEMBER FORD: So there's no way of --
19 something came up just recently. You can't look at
20 the performance of rebar in concrete by this process.

21 MR. BURTON: Say that again.

22 MEMBER FORD: You can't look at the
23 structure integrity of rebar, reinforced bar, in
24 concrete by this process.

25 MR. BURTON: Well, I don't want to say

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1 that, and I'm not familiar enough particularly with
2 structural stuff with GALL to say. GALL may address
3 that, I don't know, and you'd have to get one of the
4 structural people here. Let's assume it does, let's
5 assume it does. If it addresses it and what -- GALL
6 is supposed to be the end process of what the staff
7 has approved as credit for existing programs. If an
8 individual applicant is following that, that should be
9 okay.

10 Now, if it wasn't evaluated in GALL, then
11 we're going to have to get the plant-specific basis
12 for how they're going to do that. We still have to do
13 that. But GALL is supposed to be an effort where you
14 don't have to keep going through that stuff over and
15 over again. We've got established, approved means of
16 managing a particular component. But, again, the
17 specific thing, I can't speak specifically to it.

18 MR. KUO: Let me just speak to that. Yes,
19 indeed, the GALL evaluated both the concrete itself
20 and the rebar.

21 PARTICIPANT: Good. That's good.

22 CHAIRMAN BONACA: We need to move on.

23 MR. BURTON: Okay. All right. Okay. I
24 talked about the need for a lot of crosstalk. AMR
25 reviewer who's looking at Section 3 must communicate

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1 with the AMP reviewer to ensure that the components
2 are adequately managed. When they're following those
3 links through and they get to the program, that
4 reviewer has not actually reviewed that program.
5 They've got to talk to that program reviewer and say,
6 "Did you find any problems here? They're taking
7 credit for this particular component. Is there any
8 problem with that? What problems have you found?"
9 And there's got to be that feedback.

10 And, actually, I think I'm going to skip
11 a whole bunch of these, and I am going to get to how
12 we document some of this stuff. Okay. And I'm
13 skipping through a lot, and this is what I wanted to
14 skip through anyway. If you find your Slide Number
15 23, this is where I'm going to start talking about how
16 we document the results.

17 Okay. Just like you mentioned, it's a
18 complex review, okay, and it is very easy to start to
19 get yourself turned around with some of this stuff.
20 So what we did was we developed a template for the
21 SER, and we put a number of -- we put in a lot of
22 boilerplate language that was pre-approved by the
23 lawyers. And what it does is it gives -- even someone
24 who is new to license renewal, it gives them guidance
25 on what it is you're trying to do, what is the end

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1 result of your review? And it's documented in that
2 boilerplate, either introductory or summary, language.
3 So we've put together a template.

4 The template actually includes several
5 columns of that 3.X-1 Table. It actually has,
6 straight out of the SRP, the component type, the aging
7 effect and the aging management program that GALL
8 credits. There are two additional -- I think it's in
9 there.

10 But next to that is here's what GALL says
11 -- how GALL says it should be managed, here is how the
12 applicant manages it, right next to each other. And
13 then right after that is a summary of the staff's
14 assessment of that. It will either say, "Yes, we
15 agree it's consistent," or, "Yes, we agree it's
16 consistent with further evaluation recommended and
17 here is in the SER where you can go and see our
18 evaluation of that," or, "No, it's not, and you can
19 find our evaluation of that here." But it's all in
20 one place. It gives a road map where you can find the
21 individual results.

22 This comes out of a template. What I
23 wanted to do is start with Section 3, and the next few
24 pages is where we actually trying to give the reader
25 sort of a summary. Section 3.0.1 talks about the GALL

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1 format, the stuff I just went over with you, okay, to
2 try and help explain what they're looking at there.
3 Section 3.0.2 gives a summary of how the staff went
4 about its review.

5 So when you get the SER, you know, if
6 you've forgotten all this stuff I've been saying to
7 you, it's all right there. One of the things that
8 we've done -- I think we're already doing this even
9 before Fort Calhoun -- but in Section 3, what I'm
10 going to be providing to you is a table of the common
11 AMPs. And for each of the common AMPs, like, for
12 instance, bolting integrity, here are the two GALL
13 AMPs that they claim to be consistent with, here are
14 the system groups that credit this program, and here
15 is where you can find the staff's evaluation in the
16 SER. So, again, with this table, it will direct you
17 exactly where you need to go to look at what you want
18 to look at.

19 Right after that table we have the aging
20 management programs that are system-specific; they
21 aren't common. Containment leak rate, here are the
22 GALL AMPs that it claims to be consistent with. You
23 can find it in 3.5 structures, and specifically in
24 this subsection is where you'll find the staff's
25 evaluation of that program. So that's what's going to

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1 be in the SER.

2 VICE CHAIRMAN WALLIS: Isn't the staff's
3 evaluation going to be a refrain which says that the
4 licensee has met all the requirements of the GALL
5 report; therefore, everything is blessed and they can
6 proceed? And it's going to say the same thing over
7 and over and over and over and over again?

8 MR. BURTON: Rest assured, because I just
9 got finished my first pass on the Fort Calhoun SER, it
10 will not say that. You will not be bored.

11 (Laughter.)

12 MR. BURTON: Very interesting reading.
13 Very interesting reading.

14 New documentation of staff review results.
15 This isn't set in stone; I'm still looking at this.
16 Because the AMR inspection now has an expanded scope
17 and it's a little more critical to reaching our
18 reasonable assurance finding, I was considering
19 actually including it in the SER. But after the
20 recent discussions that we had, I'm not sure that
21 that's going to happen. But that was a consideration.

22 Lessons learned. This first thing
23 requires more time than we have, okay? What we found
24 with these first applicants is that when they say they
25 are consistent with GALL, we have different

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1 understandings of what that means, okay? We
2 recognized it right away, staff jumped right on it,
3 and there were a series of meetings with NEI to nail
4 this down.

5 Just very briefly, what we mean when we
6 see the words, "consistent with GALL," means same
7 program -- I mean same component, same material, same
8 environment, same aging effect, same aging management
9 program. If any of those are different, they're not
10 consistent. What we found is that several of the
11 applicants gave themselves some leniency with what
12 consistent means.

13 And I think in the worst case, and I can't
14 think of which one it was, when they came in for their
15 overview about a month after they submitted their
16 application, we asked, "When you say consistent what
17 does that mean?" And they said, "We've got the same
18 component." That's it. Could be a different
19 material, different environment, completely different
20 aging effects, different aging management program, but
21 they still say they're consistent. That's a problem.

22 So the staff has its work cut out for it
23 in terms of getting to the root of all this and making
24 that adequacy call. Fort Calhoun was not one of them,
25 I can tell you that. Okay? So we are hopefully with

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1 the next application, which is Farley in September,
2 that class of '04, I guess it is, hopefully this is
3 settled, we won't have this anymore.

4 We also talked with NEI at the same time
5 about some formatting changes that would improve
6 things. And then, finally, I've been getting feedback
7 from the reviewers about the template and how we can
8 maybe do some things. When they are consistent, we
9 should have less verbiage on what they're consistent
10 with and more verbiage on what they're not consistent.
11 That's basically what the comments are that are coming
12 back. So we're looking at alternative ways for the
13 template. Okay?

14 And then, finally, Fort Calhoun is the
15 first application to fully utilize the new GALL
16 process. I will be prepared to talk to you about in-
17 depth in June. We have six plants in-house right now.
18 We've developed a review and documentation process to
19 help with the review.

20 And, finally, when all this is over, as PT
21 mentioned, we've been keeping a running tab of things
22 that need to be looked at afterwards, and I'll be
23 doing a full debrief with all of the reviewers as well
24 as the applicant when all of this is over to see what
25 lessons learned we have, and we'll be incorporating

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1 them into our license renewal documents in the future,
2 in '04, as PT mentioned.

3 MEMBER FORD: Is there anything in your
4 lessons learned so far to show that we have missed
5 things in advance that we have approved licenses for,
6 license renewals for?

7 MR. BURTON: The answer to that, I guess
8 I would have to say, yes, but it's not GALL-specific.
9 There are technical issues that come up all the time,
10 and one of the things that we're struggling with is --
11 okay, let me give you a for instance. Ten CFR
12 54.4(a)(2), that's a scoping criteria, non-safety-
13 related SSCs whose failure could adversely impact on
14 an intended function. In the rule, we have developed
15 an interim staff guidance on how an applicant should
16 approach that and capture that population of SSCs.
17 With any ISG that comes up, one of the things we have
18 to do is we've got to say, well, how does this impact
19 on those who already got their license, okay?

20 So there are technical issues that come
21 up. That's one of them. We have one about fuse
22 holders, there's a whole series of them. But one of
23 the things that we're struggling with is even when we
24 come up with a resolution to this issue, what about
25 those people who have gotten their license? What

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1 should be the appropriate mechanism to bring them on
2 board to deal with that? And, you know, we're looking
3 at the whole 50-109 backfit thing. We don't have a
4 clear answer, consistent answer with that yet, but we
5 are aware of it and, believe me, it's the subject of
6 a lot of discussion.

7 MR. KUO: And, Dr. Ford, I think, just
8 like Butch mentioned, this concern that you have is
9 really not GALL plant-specific. It happens all the
10 time. That's the most troubling aspect of this review
11 is that we always have the late-coming RAIs. The
12 staff's initial evaluation missed something, and then
13 we are at the time writing SER. All of a sudden this
14 is a new question, but we have to go out to the
15 applicant and ask them to address it.

16 Yesterday, we briefed the Committee on
17 Peach Bottom, for instance, the top guy issue. That
18 was the last minute issue that we asked the applicant
19 to address. So, yes, for our practical purposes, that
20 is a matter a lot. We do find that the staff
21 sometimes miss some issues, but hopefully we will
22 catch it all the time.

23 MR. BURTON: And the last thing I want to
24 say is, you know, the handouts that I gave you have
25 three-hole punch in them. Put them in a binder

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1 because this is going to come up again, not just from
2 me in June but --

3 CHAIRMAN BONACA: Okay. All right. Any
4 questions?

5 MR. KUO: If I may say something again, I
6 just wanted to emphasize that this is a new review
7 approach. The staff has struggled with it for a long
8 time, and I'm sure -- I won't be surprised at all that
9 the members of this committee will find difficulty in
10 navigating the application or even having problems
11 with how the staff reached its conclusion. So I would
12 like to make an offer. Before June when Butch has to
13 come before the Committee to make the Fort Calhoun
14 meeting, at any time that the members of this
15 Committee have any questions and doubts or
16 clarifications, let us know, we will be there to
17 provide information or even to give any informal
18 briefing.

19 CHAIRMAN BONACA: Okay. Thank you.

20 MEMBER POWERS: You're welcome.

21 MR. BURTON: Thank you.

22 CHAIRMAN BONACA: Thank you for the
23 informative presentation, and I think we will now go
24 through experience with this review, I guess, for when
25 Fort Calhoun comes up.

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1 PARTICIPANT: Just when we thought we knew
2 what we were doing.

3 (Laughter.)

4 CHAIRMAN BONACA: Okay. We won't be very
5 shy about giving you our comments, we are sure about
6 that. Okay. With that, we can now stop the recording
7 of the meeting.

8 (Whereupon, at 12:03 p.m., the ACRS
9 meeting was concluded.)

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