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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION  
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PUBLIC MEETING TO DISCUSS  
DRAFT SUPPLEMENT TO THE  
FINAL ENVIRONMENTAL STATEMENT  
FOR WATTS BAR NUCLEAR PLANT, UNIT 2

+ + + + +  
Thursday, December 8, 2011

Magnuson Hotel  
1421 Murrays Chapel Road  
Sweetwater, Tennessee

+ + + + +  
Evening Session  
6:30 p.m. to 8:30 p.m.

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

(6:30 p.m.)

1  
2  
3 MR. CARPENTER: Good evening. We're ready  
4 to go ahead and get started now. I'm Gene Carpenter.  
5 I'm with the U.S. Nuclear Regulatory Commission.  
6 Thank you for coming. This is the second meeting  
7 today of the Public Meeting to discuss the Draft  
8 Supplement to the Final Environmental Statement for  
9 Watts Bar Nuclear Plant, Unit 2.

10 What we will be doing today is Patrick  
11 Milano and Jeremy Susco will be giving presentations  
12 at the beginning of this meeting. Then we will go  
13 into a question and answer portion. And then once we  
14 finish with your questions, we will go into a comment  
15 period. And that will allow everyone here to ask  
16 questions specifically related to the Environmental  
17 Statement Supplement. And then if you have comments  
18 about related to Watts Bar, we will go into that.

19 We do not have -- because this is a  
20 meeting between the NRC and the public, we will not be  
21 taking questions specifically for the licensee. If  
22 there are TVA people here who would like to talk to  
23 someone about something after the meeting, certainly  
24 welcome to do so. But today's meeting is specifically  
25 for the NRC to interact with the public. And we do

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1 appreciate your taking your time to come and chat with  
2 us.

3 Now as I said, Pat will be giving the  
4 presentation. And then Jeremy will be giving a  
5 presentation. Let's go ahead and get started.

6 We also have Steve Campbell. Steve is the  
7 Branch Chief for the Watts Bar Special Projects  
8 Branch. Alan Howe, he is the Deputy Commission  
9 Director for the Division of Operating Reactor  
10 Licensing. These folks are all in the Office of  
11 Nuclear Reactor Regulation in Rockport, Maryland at  
12 the NRC Headquarters.

13 We also have some folks here from the  
14 Regions. If you have questions about that, we can  
15 talk -- introduce those.

16 And we also have a representative from our  
17 Office of General Counsel if there's any legal  
18 questions that we need to answer.

19 Couple of administrative aspects first.  
20 Obviously everybody came in this door; that's one of  
21 the fire exits. The other fire exit is the other side  
22 of the room. There are the restrooms right there on  
23 the left. So if you need to do something like that,  
24 you don't have to run downstairs.

25 We do have some sign-in sheets right over

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1 here. And I would like to encourage anyone who is  
2 interested in asking questions or providing comments  
3 to go ahead and sign in. You're obviously not  
4 required to, but we would like to be able to keep a  
5 record of who's asking questions and who are giving  
6 comments in case we need to get something back to you.

7 Also we have here at the table also some  
8 public meeting feedback forms. And as with any NRC  
9 public meeting, we do encourage you if you do have any  
10 comments about the meeting, how it runs, anything we  
11 can do to improve it, please provide that. We always  
12 appreciate that.

13 Also there are some handouts on the table.

14 There are some hard copies of the book in case some  
15 of you have interest in that. They have electronic  
16 copies of those again for your personal use and feel  
17 free to take them. If you do sell them, more power to  
18 you, but they're free for you to take, okay?

19 The other thing is I do encourage everyone  
20 to please turn off your cell phone or at least put it  
21 on mute just to give everybody a chance.

22 When we go to the question and answer  
23 portion of the meeting, anyone who has signed in and  
24 has indicated that they'd like to do questions, I will  
25 take those people first. And then we will throw it

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1 open to anybody else from there. And the same with  
2 comments from that point. We will try to go in as  
3 much as possible around the room and give everybody a  
4 chance.

5 So I will initially limit the question and  
6 answers to three minutes for each question and three  
7 minutes for each comment. If we have fewer or more  
8 comments than that after we've gone through the first  
9 or second round, we'll expand the time as appropriate.

10 With that I think we're good to go. At  
11 this time we'd like to introduce Pat to come and have  
12 a talk -- present his talk.

13 MR. MILANO: Thank you, Gene.

14 Again as Gene indicated, my name is  
15 Patrick Milano, Pat Milano. I'm Licensing Project  
16 Manager with the NRC's Office of Nuclear Reactor  
17 Regulation. We commonly refer to it as NRR and you  
18 may hear that again repeated several times tonight.

19 Our office is responsible for the Agency's  
20 review of the application from Tennessee Valley  
21 Authority to operate -- to license and operate a  
22 second unit at the Watts Bar Station, Watts Bar  
23 Nuclear Plant, Unit 2. And I will be discussing a  
24 little bit about in general what's going on with the  
25 licensing process for Watts Bar.

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1           And Jeremy will be taking and talking  
2 about the environmental related activities for this  
3 operating license application.

4           As all of you are probably aware, on  
5 November 10th of this year, the NRC published its  
6 notice of availability of the Draft Supplement to the  
7 Final Environmental Statement related to the operation  
8 of Watts Bar Unit 2. The Draft Supplement documents  
9 the NRC's preliminary review of the environmental  
10 impact associated with operating this unit for the  
11 duration of the proposed operating license period.

12           Next one.

13           Oh, excuse me. Before we start, a  
14 question came up earlier this evening with regard to  
15 the docket number for this the operating license  
16 activity at Watts Bar. And in general the docket  
17 number is 50-391. However, if you're trying to find  
18 information in our document control system that the  
19 NRC maintains, it's called ADAMS; that's the acronym  
20 for it. It's the Agency-wide Document Access and  
21 Management System. And if you're using that, it's got  
22 a field to put in the docket number and rather than  
23 using the dashes, they use 05000391 there.

24           So we put it up on the screen just in case  
25 somebody wants to find some of the information related

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1 to overall as to what's been going on with Watts Bar  
2 Unit 2 and the flow of information both from TVA and  
3 from the NRC.

4 Next slide.

5 On this slide we're showing you the basic  
6 agenda for today's meeting. I will be discussing,  
7 like I said, a short discussion about the NRC's  
8 regulatory role. Then we will provide you with a  
9 summary of the environmental review, some of the  
10 upcoming milestones, and then also how to submit  
11 comments after this meeting if you'd like to submit  
12 them either electronically or by some other written  
13 method.

14 At the end of the presentation, like I  
15 indicated, there will be some time for interested  
16 parties to ask questions on the environmental review  
17 process and more importantly time for you to present  
18 your comments on the Draft Supplement too to the Final  
19 Environmental Statement for Watts Bar Unit 2.

20 Next slide.

21 The NRC was established to regulate  
22 civilian uses of nuclear materials, including  
23 facilities that produce electric power. The NRC is  
24 responsible for licensing and regulating the operation  
25 of commercial nuclear plants in the United States.

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1 Watts Bar, like the other currently  
2 operating nuclear plants, is being licensed under a  
3 two-step process described in Part 50 of the NRC's  
4 Regulations. And when I say two-step process, what  
5 I'm saying there is there was a process to -- wherein  
6 TVA was granted a permit to construct the facility.  
7 And then separate from that there's the process that  
8 we're currently in right now where we're evaluating  
9 TVA's application to operate the facility.

10 In all aspects of the NRC's Regulation,  
11 the Agency's mission is to ensure adequate protection  
12 of public health and safety, to promote the common  
13 defense and security, and to protect the environment.

14 Next slide.

15 All nuclear power plant applications must  
16 undergo a safety review, an environmental review, and  
17 an anti-trust review by the NRC. In order to  
18 construct or operate a nuclear plant, an applicant  
19 must submit a Safety Analysis Report. This document  
20 contains basic design information criteria for the  
21 proposed reactor and comprehensive data on the  
22 proposed site.

23 As part of the application for an  
24 operating license, an applicant provides more details  
25 in its Final Safety Analysis Report, commonly referred

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1 to as the FSAR, that provides further details about  
2 the facility, presents the design basis and the limits  
3 on its operation, and presents the safety analysis of  
4 structures, systems, and components and the facility  
5 as a whole.

6 It also discusses various hypothetical  
7 accidents and the safety features of the plant that  
8 would help to either prevent or to lessen the effects  
9 of an accident. The NRC Safety Review covers a broad  
10 range of areas, including those that are shown in the  
11 upper portion of this slide.

12 The National Environmental Policy Act,  
13 NEPA, requires federal agencies to integrate  
14 environmental values into their decision making  
15 process by considering the environmental impacts of  
16 the proposed actions and reasonable alternatives to  
17 those actions. To meet NEPA requirements, federal  
18 agencies prepare a detailed statement known as an  
19 Environmental Impact Statement. And this is in part  
20 what we're here today to do. The NRC has prepared a  
21 supplement to the Environmental Statement that was  
22 done for Watts Bar Unit 1 and 2. And this supplement  
23 is for Unit 2.

24 Because TVA is also a federal agency, it  
25 was also required by NEPA to prepare an Environmental

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1 Impact Statement to support the operation of Watts Bar  
2 Unit 2.

3 The NRC's Regulations also define criteria  
4 wherein licensing and regulatory actions require an  
5 Environmental Statement. One of those criteria is the  
6 issuance of a full power, or also you may hear it  
7 called a Design Capacity License, to operate a plant.

8 The criteria for an identification of licensing and  
9 regulatory actions of requiring Environmental Impact  
10 Statements are found in Part 51 of our Regulations.

11 These Regulations require that an  
12 applicant for a license contain a comprehensive  
13 statement of the environmental impacts of the proposed  
14 plant. And because of the two-step processes, as I  
15 was indicating, an Environmental Statement was  
16 prepared to support the construction permit. And this  
17 environmental report at the operating license stage  
18 that we're at right now expands on that initial report  
19 and focuses specifically on the plant operation and  
20 also it's submitted only in connection with the first  
21 licensing action authorizing full power operation.

22 During the licensing of a nuclear plant  
23 the NRC, like I indicated, also issues a Final  
24 Environmental Statement, which identifies those  
25 potential impacts and evaluates them and the benefits

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1 of the proposed plant. After completing the review,  
2 the NRC issues a Draft Environmental Statement for  
3 comment by the appropriate federal, state, and local  
4 agencies as well as the public. And then once all  
5 those comments are received, the NRC addresses the  
6 comments and issues the document in the final form  
7 called the Final Environment Statement.

8 Next slide.

9 Here's a simplified chronology of some of  
10 the major things that have taken place at the plant as  
11 it relates to the environmental review. As I  
12 indicated, because of the fact that TVA is a federal  
13 agency and it was required to submit its own  
14 Environmental Impact Statement, that was done  
15 initially in September of 1972 to support the  
16 construction permit. And the operating license  
17 application came in several years later in June of  
18 1976. And although I don't have it on here, the  
19 Environmental Impact Statement to support operation at  
20 that time of Watts Bar Unit 1 and 2 was submitted by  
21 TVA in about September of '76.

22 The NRC evaluated the information that TVA  
23 provided along with its doing some of its own reviews  
24 and issued its Final Environmental Statement for Watts  
25 Bar's Units 1 and 2 as an NRC document or an NRC

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1 report. And the number of it is NUREG-0498. And that  
2 was done in December of 1978.

3 As some of you are aware, in around 1985,  
4 when TVA thought that Unit 1 was about ready to be  
5 issued an operating license, a number of issues came  
6 up and construction stopped at both Unit 1 and Unit 2.

7 And subsequently after a number of those issues were  
8 corrected and TVA completed the remainder of the  
9 plant, in the mid-'90s TVA did a review of its  
10 Environmental Impact Statement for Unit 1 in May of  
11 1994. And in April of 1995, the NRC supplemented that  
12 December 1978 Environmental Statement for Unit 1 and  
13 specifically for Unit 1 operation.

14 In July of 2008, TVA submitted a  
15 Supplemental Environmental Statement to support  
16 operation for Watts Bar Unit 2. And as indicated in  
17 the report, there was some additional information that  
18 was necessary to be submitted to support some aspects  
19 of the environmental review. And that information was  
20 submitted in January of 2009, wherein the staff felt  
21 it had a complete submittal from TVA.

22 And also at the time that TVA informed the  
23 NRC of its intent to reactivate construction of Watts  
24 Bar, our five member Commission provided some  
25 direction to the staff on how they wanted the review

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1 to be conducted. And one of those things that they  
2 did tell the staff to do was they wanted to offer the  
3 public another opportunity to request a hearing if  
4 need be.

5 And because of that the NRC issued a  
6 Federal Register Notice of Availability of an updated  
7 operating license application and opportunity for  
8 hearing. This March 2009 date here is the date that  
9 the information that updated the original operating  
10 license application came in from TVA. And then May  
11 2009, the NRC issued its Federal Register Notice for  
12 the updated application.

13 And so that basically takes you up to  
14 today with regard to what's been going on licensing  
15 wise for Watts Bar Unit 2. If you've got some more  
16 questions about some of the details, I know I went  
17 through -- a lot has taken place in the last three  
18 years. So if you've got other questions or want to  
19 know a little bit more specifics about it, feel free  
20 to ask me after the environmental review.

21 In any case I'm going to turn over the  
22 floor now to Jeremy Susco, who's going to go into the  
23 specifics about the staff's Environmental Review.

24 Thank you.

25 MR. SUSCO: Thanks, Pat. My name is

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1 Jeremy Susco and I work for the Environmental Team  
2 that put together the document that we're here to  
3 discuss today. And for those of you who heard me  
4 speak earlier, my presentation hasn't gotten any  
5 funnier or more interesting. So I hope you can stay  
6 awake until we get to the Q&A period.

7 So why we're here today is to talk about  
8 the Draft Supplement to the Final Environmental  
9 Statement, which is kind of a confusing thing to say.

10 So to help kind of clear that up, so there's two  
11 Environmental Impact Statements we're talking about,  
12 one submitted by TVA and one done by the NRC. The one  
13 submitted by the TVA I'm not going to call it an  
14 Environmental Impact Statement. That was their  
15 application, just so we can make that a little less  
16 confusing.

17 TVA submitted their application. And  
18 we're working on our Environmental Impact Statement  
19 now.

20 So why are we doing a supplement to what  
21 used to be a final and now it's a draft?

22 So back in '78, we put out our Final  
23 Environmental Statement related to Watts Bar 1 and 2.

24 If they had gone up and operating since then, that  
25 would have been it. There was a 20-year hiatus. And

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1 so we decided back in the '90s, when they started up  
2 Unit 1, that was going to be Supplement 1, so  
3 Supplement 1 to their 1978 document. Worked on that  
4 while the conditions were still the same so we wanted  
5 to supplement that and build on it for Unit 1.

6 That brings us up to Unit 2 and now we're  
7 talking about Supplement 2. And so now we're also --  
8 we're supplementing that '78 document, kind of  
9 building on what was in there, building on Supplement  
10 1 that was in the '90s. Again a lot of similar  
11 issues. And now we're here at Supplement 2.

12 And this is draft and so that's what we  
13 just put out a couple of months ago is the Draft  
14 Statement that we're here to receive your comments on.

15 And if you're interested the third bullet on there,  
16 our Part 51 requirements, that discusses what's  
17 supposed to be on TVA's application as well as the  
18 issues that we look at at the NRC. And further  
19 guidance at the NRC is that fourth bullet down there,  
20 another report called our Standard Review Plan.  
21 That's what we look at.

22 And really what the Environmental Impact  
23 Statement looks at is what would be the environmental  
24 impact of granting that second license to our Watts  
25 Bar 2 to operate.

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1 Next slide, please.

2 So putting together our Environmental  
3 Impact Statement, this is not complete, but it's a  
4 very good example of why the issues that we looked at.

5 And so some of the things that we're looking to hear  
6 from the public on today are did we miss an issue.  
7 And for the issues that we did examine is our analysis  
8 complete? Is there something that we missed?

9 And so if we hear up at the podium and we  
10 speak later as well in written comments you provide  
11 later, those are the kind of things that we're looking  
12 to hear about. That's why we have this public comment  
13 period when it goes from draft to final.

14 The next slide, please.

15 So to give you an idea of some of the  
16 information sources that we looked at, you can see it  
17 there, the license application. That is TVA's  
18 Environmental Impact Statement.

19 Public comments, we were here two years  
20 ago about this time to hear public comments on the  
21 scope of our view, what things should we look at, what  
22 shouldn't we look at. Different permitting  
23 authorities, the NRC is not the only person that TVA  
24 has to answer to as far operating and a lot of their  
25 permits they have to receive. We talked to those

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1 authorities and agencies, different state, federal,  
2 and local agencies as well as some local tribal  
3 councils, and NRC staff site eyed.

4 We actually came here back in October of  
5 '09. And we actually examined the site and the  
6 environmental issues to get a better idea of what was  
7 really going on at this than we can realistically do  
8 from our Headquarters in Washington, D.C.

9 But as part of this -- again everything  
10 we're looking to hear public comments on is did we use  
11 the best available data? And if we didn't, in your  
12 public comments, let us know. Point us to that -- to  
13 a particular reference and we will definitely take a  
14 look at that.

15 Next slide, please.

16 So our preliminary conclusion -- and I'll  
17 read this, "The NRC staff preliminary recommendation  
18 to the Commission is that the environmental impacts  
19 are not significant enough to forego issuing operating  
20 license for Watts Bar Unit 2."

21 I just wanted to kind of break down that  
22 overwrought statement and kind of highlight some of  
23 the salient points there. The first one I want to  
24 point out is preliminary. And synonymous we're using  
25 here the term draft. We put out a Draft Environmental

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1 Impact Statement. And our preliminary recommendation  
2 is we haven't considered everything yet because we  
3 haven't seen our public comments. And so that will  
4 become a final recommendation after we do so. And  
5 we're looking to put out our final document in May.

6 The next key word there is recommendation.

7 And the Watts Bar 2 license is not just resting on  
8 this Environmental Impact Statement. This is just one  
9 of the documents that goes up to the Commission when  
10 they're looking to make the decision on whether or not  
11 to grant that operating license.

12 They have the Environmental Impact  
13 Statement, the Safety Evaluation Report that Pat  
14 talked about earlier, different inspection reports.  
15 And so this is just one component to the Commission  
16 making that decision.

17 And then the not significant enough to  
18 forego. What that legal term of art what that really  
19 means is that it's not an unreasonable environmental  
20 choice to make to issue an operating license. It's  
21 not to say that there will be no impacts. It's that  
22 there not will be impacts that are great enough that  
23 it would be a ridiculous option environmentally to  
24 grant the operating license.

25 So that's what we really tried to examine

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1 when we put together this Environmental Impact  
2 Statement.

3 And next slide, please.

4 So this milestone review, this is just the  
5 documents that we're talking about here. The black  
6 text here that's where we are now. We put out the  
7 draft for public comment in October and we're here to  
8 the public meeting to hear your public comments just  
9 very shortly. And the public comment period is going  
10 to close on December 27th.

11 And I do want everyone to know there were  
12 several commenters in our meeting earlier today who  
13 did ask for an extension. I just want everyone else  
14 to know that we're going to take that request back to  
15 Headquarters and look at the option of extending that  
16 comment period for a little longer, especially past  
17 the holiday period. And we're looking to put out our  
18 final document after we consider and respond to all  
19 the public comments in May.

20 Next slide, please.

21 So four other ways to submit public  
22 comments. Number one, you have the podium today after  
23 we're done speaking. And I promise this is my last  
24 slide. Next way is by mail and you have the address  
25 there. Probably the easiest way is on

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1 regulations.gov. And that docket ID is what's  
2 particularly important there. When you go to  
3 regulations.gov, you can put that docket ID and it  
4 will bring up the web page for this particular  
5 document. And there's a pretty easy form where you  
6 can -- just a blank space for you to submit your  
7 comments. And you press the Submit button and it  
8 heads out to the NRC. And the last way if you so  
9 choose, we do also have a fax number for comments.

10 It's like I said the current due date for  
11 comments is December 27th. But we are going to look  
12 at potentially extending that based on public request.

13 So that concludes my do. And I'll turn it  
14 back over to Gene.

15 MR. CARPENTER: Thank you. All right, now  
16 this is the real meat and potatoes part of the  
17 meeting. Well, the reason that we're here today, and  
18 that is to get your questions and comments to the  
19 staff. Now the first part of this that we're going to  
20 go into is the question and answer portion of this  
21 meeting. And specifically if you have any questions  
22 that the staff here they can answer, that we will  
23 write down and take back and respond back to you in  
24 writing. This is the portion that we would like to  
25 have you go ahead and ask your questions.

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1 As soon as we're finished with all the  
2 questions that we may have from the floor, then we  
3 will go into the comment period so that any comments  
4 that you have that you'd like us to consider then we  
5 will take those. All right?

6 Now I'd ask at the beginning of the  
7 meeting anybody who was interested in having to be  
8 asked first for questions, comments to sign in and to  
9 mark it that they would like to do so. With that  
10 there is nobody who has done so, so I'm just going to  
11 throw it open to the audience. Does anybody have any  
12 questions of the staff?

13 Because we are having this transcribed  
14 when I bring the mic over to you, please stand up and  
15 tell your name when you do so. Or you can sit.

16 MS. HARRIS: Earlier today we talked about  
17 --

18 MR. CARPENTER: Give your name.

19 MS. HARRIS: He knows. Ann Harris.

20 MR. CARPENTER: Thank you.

21 MS. HARRIS: Earlier today we talked about  
22 some of the documents that you used to make your  
23 judgment in here and some of them refer to 40-year-old  
24 documents. Now I realize some things haven't changed,  
25 but a lot more has changed than has not.

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1           And I'm wondering on these documents where  
2 you used TVA's documents when you did use them and did  
3 you just accept TVA's documents without going back and  
4 checking to verify in those old documents and did you  
5 go and look for new information concerning those same  
6 documents because I'm not finding consistency between  
7 what you've put in and some things that I personally  
8 know about? And I'll put those in my comments. But  
9 I'd like to know how you made those determinations.

10           MR. SUSCO: It's kind of a combination of  
11 all of those things. So it really kind of depends on  
12 the issue. For example, one issue that there's not  
13 going to be a lot of new information is going to be on  
14 the geology and soils of the area. Nothing has really  
15 changed as far as what this -- what Watts Bar is built  
16 on in the last 40 years. So we really could use some  
17 of the older studies.

18           But for something like aquatic impacts,  
19 now we might start -- as a starting point we might  
20 look at something that was from when the plant was  
21 initially built, but then we're -- I guarantee that  
22 we're going to look at new information for that type  
23 of impact, in particular because we really want to see  
24 what has changed. And we already got the documents  
25 from 40 years ago. We can see the delta and what sort

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1 of impact the plant may have had on that particular  
2 type of issue.

3 But as far as documents submitted by TVA,  
4 yes, we do put a certain amount of trust in our  
5 licensees that what they are submitting to us is  
6 truthful. But that's not the only place that we look.

7 There's a lot if you look in the referencing section  
8 for each of the chapters, you'll see 10 pages for  
9 every chapter and all the references that we looked.  
10 And only a small portion of those are TVA's. There's  
11 a lot of expert studies that we look at from all sorts  
12 of different sources. So it's kind of a combination  
13 of all those things.

14 MR. CARPENTER: Any other questions for  
15 the staff?

16 MR. RIDEN: David Riden from Riceville,  
17 Tennessee. I signed the sign-in thing earlier. Had  
18 no intent to ask a question, okay? What you said two  
19 things that raise two questions in my mind.

20 The first one relates that I've lived  
21 three years in Minot, North Dakota prior to 1968, when  
22 the Mouse River flooded. And then recently I was a  
23 contractor at Fort Calhoun on the Missouri River.

24 NRC was concerned about the data that the  
25 utility had used for Fort Calhoun as far as the flood

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1 projections were for the Missouri River. Fort Calhoun  
2 had used data from the Corps of Engineers. And NRC  
3 has a process to calculate each utility to calculate  
4 that without utilizing the data from the Corps of  
5 Engineers. And the reason why I was there was to look  
6 back over their information that they were going to  
7 present to NRC. And they did extensive updates.  
8 Don't need to go into that.

9 But the bottom line is the information  
10 provided by the Corps of Engineers was faulty. And  
11 they made great improvements at Fort Calhoun and  
12 they're still working on it. If you watch the news,  
13 if they hadn't prepared for it, they'd be in a lot of  
14 trouble, lot worse trouble. And I attribute NRC  
15 pushing them to correct what they had there and it  
16 made a bad situation a lot better.

17 And my question is has TVA depended on the  
18 Corps of Engineers data for anything related to the  
19 Tennessee River at Watts Bar? And if they have, will  
20 NRC then go back to the Tennessee Valley Authority and  
21 ask them the same prudent questions they asked the  
22 utility owner on the Missouri River to do it in  
23 accordance with the federal regulations and not depend  
24 on the Corps of Engineers? So that's the first  
25 question.

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1           And if there's any response, you've got my  
2 email address. If there's any response back, I would  
3 like to know because I'm an old-time resident of East  
4 Tennessee, okay?

5           And that leads into the second question.  
6 You want me to go ahead with the second question?

7           So that was the first question. I don't  
8 know the answer to it even though I'm a former NRC  
9 employee and a former TVA employee. I was here in  
10 1978, when we were originally trying to start up Watts  
11 Bar Unit 1. And I was the Nuclear Assurance Engineer  
12 at the time.

13           And TVA upper management gave up on Watts  
14 Bar and said, "David, we brought you here to start up  
15 Watts Bar. We want you now to go to Sequoyah because  
16 we changed our mind. We want to put our effort in  
17 Sequoyah." So I went to Sequoyah and I was there  
18 helping them start up the Sequoyah units.

19           And for whatever reason they wanted to --  
20 it doesn't hurt my feelings -- but TVA ripped me along  
21 with everybody else that were supplement people that  
22 they moved over to Sequoyah. And when they released  
23 me, they said, "Oh, by the way, David, we like what  
24 you do. You're going to be back cause we've got a lot  
25 more in TVA to do especially at Browns Ferry." So in

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1 the last 20 years I've spent over half of that time as  
2 a contractor for TVA.

3 Before all that I mentioned I spent three  
4 years in Minot, North Dakota. That's because I was  
5 with the United States Air Force. I'm a Nuclear  
6 Weapons Specialist. I was there to start up the  
7 Minute Man Three Multiple Independent -- where you had  
8 three vehicles.

9 So I preface this question with I am pro-  
10 nuclear. I'm an environmentalist. And there's  
11 nothing with a more green environmental impact than  
12 nuclear power. Its carbon footprint is zero. So I  
13 come from a pro stance, okay?

14 But the question is -- and I guess I  
15 should preface it. Having come from the nuclear  
16 weapons industry and then going to the University of  
17 Tennessee and getting a degree in nuclear engineering  
18 and then getting into the nuclear power part and  
19 working for NRC, people would beg me, "David, counting  
20 on you to make sure that what you're doing out there  
21 is safe. We don't know enough to even ask the  
22 question."

23 And this is general. I get this  
24 everywhere I go across the United States for the last  
25 35 plus years. Will that thing blow up?

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1           And my answer has always been no, there is  
2 no nuclear special grades material in our commercial  
3 reactors in the United States that is used to make  
4 nuclear weapons grade material. That is all made at  
5 Savannah River. Don't even concern yourself.

6           Well, now I have to eat crow because the  
7 Department of Energy got into an agreement with NRC  
8 and TVA to shut down Savannah River and make their  
9 special nuclear grade material at Watts Bar. Doesn't  
10 hurt my feelings one bit at all. It's closer to home.

11          That's fine with me.

12           But I happen to know back in 1978 we  
13 didn't even consider having a special core in Watts  
14 Bar Unit 1 or 2. It wouldn't in the Environmental  
15 Impact Statement to even look at that question of that  
16 special nuclear grade material in the rods to go into  
17 the core for the Department of Energy then to  
18 reprocess.

19           So what I would expect or what NRC taught  
20 me to do back in 1978, come up with some good words.  
21 And so even though I haven't had a chance to read  
22 this, one of the good things was you are here to find  
23 out if you missed an issue or has something changed.  
24 Well, something has changed. And it could be for the  
25 good. I'm all for it; I'm not against it.

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1           What I'd like to see are words added to  
2 the Final Environmental Impact Statement that address  
3 the issue of the relationship with the Department of  
4 Energy and the core that's being used that  
5 everything's okay. That's what I'd like to see. Good  
6 words to address it. And I don't know, maybe it's  
7 addressed in here. But if it's not addressed at all,  
8 then I think that leaves the door open for somebody  
9 later on to raise an issue and I don't like issues  
10 that fall under the area of assumptions or unverified  
11 assumptions. I would like to know that NRC addressed  
12 it and everything is okay.

13           That's the two questions I have.

14           MR. MILANO: Again it's Pat Milano. Since  
15 my organization, the organization I'm with, has done  
16 the Safety Evaluation Report, in Section 2 of the FSAR  
17 and the final Safety Analysis Report as provided by  
18 TVA and in Section 2 also of the staff's Safety  
19 Evaluation Report, we address issues that relate to  
20 site characteristics. And one of which is hydrology.

21           And that information has been significantly  
22 supplemented in several of the last supplements to the  
23 Safety Evaluation Report that the NRC has done.

24           And let me -- I'll try to give you a  
25 little bit of a brief history of what's gone on. The

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1 NRC staff was reviewing the code, the computer code,  
2 and the input assumptions that were being used by TVA  
3 to assess the overall operation of, you know, in the  
4 Tennessee Valley, you know, the river operations. And  
5 because of that the staff had a number of questions  
6 and comments related to how well TVA had managed that  
7 code.

8 And based on the staff's -- based on the  
9 issues that the staff raised, TVA spent an over a year  
10 effort to upgrade the computer code itself and  
11 reassess all the input assumptions that go into  
12 utilization of that code. And they did that for the  
13 whole river system that's under their control. And so  
14 that was recently done and you'll see that documented  
15 in the staff's review as such.

16 So as you had originally indicated when  
17 you were talking about the Corps of Engineers, it's  
18 not -- the Corps of Engineers did not do the studies  
19 for flood height and stuff like that. That was done  
20 by TVA and utilizing these codes. And the staff, the  
21 NRC staff, put a significant effort into reviewing  
22 what TVA did in terms of upgrading the code and  
23 rerunning it. So that's been documented in Chapter 2.

24 So does that answer your question?

25 MR. RIDEN: Yes.

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1 MR. MILANO: Okay.

2 MR. SUSCO: So on to the second half of  
3 that. To be perfectly honest I don't know if this  
4 particular environmental statement we're talking about  
5 now mentions or discusses that particular issue about  
6 --

7 MR. MILANO: First of all, I'm sorry to  
8 take it away from you, Jeremy, but I'll turn it back  
9 to him anyway. What you're talking about is the  
10 production of tritium. And TVA in their negotiations  
11 and their Memorandum of Understanding with the  
12 Department of Energy they -- TVA is currently only  
13 producing tritium with Unit 1 and there are no current  
14 plans at least before us right now for them in the  
15 core for Unit 2 to produce tritium.

16 And they're not -- I can talk to you later  
17 a little bit. Some of this is somewhat security  
18 sensitive and stuff.

19 But it's not something that's done  
20 throughout the core. There's specific rods that  
21 produce the tritium and sequester it and stuff. And  
22 again it's currently only planned for Unit 1.

23 TVA may ultimately elect to do that for  
24 Unit 2, but if they do do that, they're going to have  
25 to come in and request an amendment to the operating

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1 license for Unit 2. And right now we're not  
2 evaluating tritium production for Unit 2 because TVA  
3 has not requested that.

4 And currently the core that TVA has  
5 purchased from Westinghouse does not have that  
6 capability with it. There are no tritium producing  
7 rods in the current core.

8 When DOE and TVA requested to do this for  
9 Unit 1, that came in as a specific request. It was  
10 evaluated by the NRC staff and as part of that  
11 evaluation the NRC staff is required to do an  
12 environmental assessment of that. And so that  
13 environmental assessment was done for Unit 1, not at  
14 the original licensing, but as an amendment to the  
15 operating license several years ago.

16 And if you want to know the specific  
17 amendment, I'll have to get back with you because I  
18 don't generally deal with Watts Bar Unit 1. But you  
19 can find that type of information that you're looking  
20 for in the information that supported that amendment  
21 to the operating license for Unit 1.

22 MS. HARRIS: It's not hard to find in  
23 ADAMS since TVA is the only one that makes it.

24 MR. SUSCO: Just to add a little bit.  
25 When Pat was talking there -- Becky if you want to

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1 raise your hand, she -- it actually is in Chapter 4.  
2 And Becky is one of the engineers that worked on  
3 putting together different parts of this Environmental  
4 Impact Statement.

5 And so I do encourage you to do those.  
6 Read Chapter 4. And if somehow we didn't properly  
7 characterize it or if there's pieces of information  
8 that we're missing, let us know in your public  
9 comments and we'll take a look at that.

10 MR. CARPENTER: Any other questions?

11 MS. HARRIS: One of the things that you  
12 should know about the tritium is that DOE worked on  
13 the evaluations from Sandia when they were done out in  
14 New Mexico for a long period of time, like 20 years.  
15 And they've had to back off of the amount that they're  
16 producing at Watts Bar because it was not designed for  
17 that. There's a lot of information out there that you  
18 can find.

19 MR. CARPENTER: Thank you. Any other  
20 questions?

21 And again if you have questions and you'd  
22 like to give it to us in writing, we have some 3x5  
23 cards here on the table, or you can send it in via the  
24 regulations.gov website, mail it to the Chief, Rules,  
25 Announcements and Directives Branch, or fax it in to

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1 us. We'll always take your questions at any time.

2 If there's no further questions, I'd like  
3 to go ahead and open it up for comments. Do we have  
4 any comments?

5 And we will take written comments also if  
6 there's no public ones here.

7 None?

8 Pat, Jeremy, any last comments?

9 MR. SUSCO: No.

10 MR. MILANO: All I want to mention is I  
11 don't want to take thunder away from Gene here, but  
12 we're not -- the NRC we're not going to leave here  
13 right away. If you've got anything else that's not  
14 related maybe to the Environmental Statement, you want  
15 to ask some general questions about and stuff like  
16 that, we'll be here for a while. And if you want to  
17 ask some more questions, we'll do what we can to  
18 answer them for you.

19 MR. CARPENTER: Any other?

20 Well, thank you all for coming. We do  
21 appreciate your taking the time and effort to come  
22 here. I hope that this was informative for you. And  
23 I do appreciate the questions and the comments, both  
24 in this meeting and in the earlier ones.

25 We will of course try to get the answers

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1 back to you if there's any other questions. We did  
2 have written questions in the afternoon session. If  
3 there's any further written questions, we will get  
4 back to you on those.

5 So this is, as we put it out earlier, is  
6 being transcribed. The transcription will be  
7 available later once that is completed.

8 So at this point unless questions,  
9 comments? Thank you all very much for coming. We do  
10 appreciate your time. Thank you.

11 (Whereupon, this meeting was concluded at  
12 7:18 p.m.)

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