Official Transcript of Proceedings NUCLEAR REGULATORY COMMISSION

Title: Sequoyah License Renewal

Public Meeting - Afternoon Session

Docket Number: (n/a)

Location: Soddy Daisy, Tennessee

Date: Wednesday, September 17, 2014

Work Order No.: NRC-1069 Pages 1-24

NEAL R. GROSS AND CO., INC. Court Reporters and Transcribers 1323 Rhode Island Avenue, N.W. Washington, D.C. 20005 (202) 234-4433

1	UNITED STATES OF AMERICA
2	+ + + +
3	NUCLEAR REGULATORY COMMISSION
4	+ + + +
5	OFFICE OF NUCLEAR REACTOR REGULATION
6	+ + + +
7	SEQUOYAH LICENSE RENEWAL
8	ENVIRONMENTAL REVIEW
9	PUBLIC MEETING - AFTERNOON SESSION
10	+ + + +
11	WEDNESDAY
12	SEPTEMBER 17, 2014
13	+ + + +
14	SODDY DAISY, TENNESSEE
15	+ + + +
16	The meeting convened at Soddy Daisy City
17	Hall, 9835 Dayton Pike, Soddy Daisy, Tennessee, at 2:00
18	p.m.
19	
20	
21	
22	
23	
24	
25	

PROCEEDINGS

2	(2:00 p.m.)
3	MR. HAGAR: May I have your attention
4	please. Steve, are you hearing me all right? Okay.
5	This is a meeting called by the Nuclear Regulatory
6	Commission to discuss the preliminary results of the
7	license renewal environmental review of the Sequoyah
8	Nuclear Plant.
9	Good afternoon. My name is Bob Hagar, I'm
10	a member of the NRC's Facilitation Corps and in this
11	meeting my role has really three parts.
12	One is I'm going to try to help the meeting
13	run smoothly. I'm going to make sure that everybody who
14	has something to say in this meeting has a chance to say
15	it and I'm going to try to keep us on schedule.
16	I'll do my best to make this meeting
17	worthwhile for everyone who's here, and I hope you'll
18	help me do that.
19	Before we get started, I want to cover with
20	you a few details about this meeting. First of all, I
21	think everyone knows that Tennessee Valley's Authority
22	has applied to renew the Sequoyah operating license for
23	an additional 20 years.
	_
24	The NRC is reviewing that application.
25	The NRC is also reviewing, as part of that application,

the environmental impact of license renewal. NRC has developed some preliminary results of that review and the NRC wants your comments on those results, and so that's really the primary purpose of this meeting.

Next, the meeting today essentially has three parts. The first part is going to be the NRC presentation. They're going to describe the process by which they develop the results they're going to describe today. Then we're going to have a period where we're going to cover questions and answers where you can ask questions. The NRC staff will answer questions about the presentation materials because the NRC wants to ensure that you understand the process that they're in.

Following that, the NRC wants comments on the results that they've described. So the meeting's got those three parts.

Now the NRC is going to describe the results of the environmental review and they're going to say that it's been documented in a draft supplemental environment impact statement and they may refer to that document as the DSEIS, in fact I'm going to refer to it as a DSEIS too so when you hear DSEIS think Draft Supplemental Environmental Impact Statement. They might also refer to just the general Supplemental

Environmental Impact Statement and let me call that the SEIS.

Now in this third part, in the public comment section, the NRC staff will listen to your comments about the environmental impact of license renewal. Now note that the NRC staff will listen -- they generally won't respond, won't provide responses to what you say. Instead, they'll prepare written responses to your comments after the meeting, after they've had a chance to refer to documents and talk to other people to make sure they've got the right answers, and they'll include those responses in the report of this meeting.

Now also the NRC has arranged to have this meeting recorded, and this gentleman off to the right is preparing that record. That's so the NRC can produce a transcript, that is a record of what was said during the meeting.

Now in order for that transcript to be accurate we need to establish a few ground rules to ensure that the recording is clear and complete.

First of all, in this meeting when you speak

I want you to speak into a microphone and this is the

microphone that we want you to speak into. So when you

have a question we want you to come up here and ask the

question, if you have comments you want to make we want you to come up here and make those comments so that what you say gets recorded.

Now the first time you speak we want you to identify yourself and, if you represent a group, what group you represent. Also, if you have an uncommon name or if your name has a unusual spelling, please also spell your name. And also to ensure that the recording is clear, we want you to minimize any background noise. Don't hold side conversations and don't interrupt the speaker, wait till the speaker is done. That's because if the microphones picks up two people speaking at the same time, we can't tell what either one of them said.

So finally please silence your personal cell phone and any other personal electronics you have with you. Now we realize that you may not be able to completely disconnect yourself from the rest of the world during this meeting but if you have to take a call during this meeting please step out in the hallway and take care of that business so that the other meeting participants can hear what's going on and so that neither your phone ringing nor your side of the conversation becomes part of the record. Is everyone okay with those ground rules? All right.

When you signed in today you may have

noticed some blue and yellow cards, they look like this, and if you wanted to speak we asked you to sign in. I don't think anybody did. So if during the presentation you decide you do want to say something, just let met know. I'm going to be sitting right up here and I'll give you a card so you can fill it out.

And when we get to the third part of the meeting I'll see how much time remains and see how many people want to say something and do the simple math to see how much each time each person has. So if you plan to be a speaker please plan to be flexible enough to fit what you want to say in the time that remains.

Now also on the table is a public meeting feedback form. We'd ask you to fill that out before you leave today and hand it to any of the NRC staff members or, if you choose to take it with you, please drop it in the mail. It's postage free. And your assessment of how today's meeting went will help us improve future meetings so please take a moment to let us know what you think about it.

Finally, I think everybody knows the restrooms are right outside the door. If there's a problem where we have to evacuate, if we hear an alarm or someone tells us we have to evacuate, we want to just step outside this door and turn right and that'll take

you right outside and we'll gather on the lawn out there. And we have a couple of security officers back there in the back to help us if we have an emergency. So does anyone have question about anything I've covered? With that I'm going to turn All right. this meeting over to David Drucker. environmental project manager for the NRC's review of the Sequoyah license renewal application, he's pretty much responsible for the reviews that they're going to talk about today. I'll be back when the NRC presentation is done and if you have any questions, again if you have questions about the material that's presented, please hold those questions until we get to the second part of the meeting. All right? Thank you for your attention. Thank you, Bob. And thank MR. DRUCKER: you all for taking the time to come out to this meeting today. My name is David Drucker and as Bob said I'm the project manager for the environmental review for the Sequoyah Nuclear Plant license renewal application.

I hope the information we provide with this presentation will help you understand what we've done so far and the role you can plan in helping us make sure that the final environmental impact statement is accurate and complete.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

I would like to emphasize that the environmental review is not yet complete.

I'd like to start off by briefly going over the agenda and the purpose of this presentation. I will discuss the NRC's regulatory role, the preliminary findings of our environmental review which addresses the impacts associated with extending the operating licenses of the Sequoyah Nuclear Plant for an additional 20 years, and I will present the current schedule for the remainder of the environmental review and how you can submit comments outside of this meeting.

At the end of the presentation there will be time for questions and answers on the contents of my briefing and, most importantly, time for you to present your comments on the draft supplemental environmental impact statement, the acronym for which you'll hear me refer to it is SEIS.

Next slide. The NRC was established to regulate civilian use of nuclear materials including facilities producing electric power. The NRC conducts license renewal reviews for plants whose owners wish to operate them beyond their initial license period.

NRC license renewal reviews address safety issues related to managing the effects of aging, and environmental issues related to an additional 20 years

of operation.

In all aspects of the NRC's regulation our mission is threefold. To ensure adequate protection of public health and safety; to promote common defense and security, and to protect the environment.

Next slide. We're here today to discuss the potential site-specific impacts of license renewal for the Sequoyah Nuclear Plant. The generic environmental impact statement, or GEIS, examines the possible environmental impacts that could occur as a result of renewing licenses of individual nuclear power plants.

The GEIS establishes and bounds the significance of these potential impacts. The analysis in the GEIS pertains to operating power reactors. For each type of environmental impact, the GEIS establishes generic findings covering as many plants as possible. There is a copy of the generic environmental impact statement out on the table outside the room and that document is also available online.

Now for some environmental issues the GEIS found that a generic evaluation was not sufficient and that a plant-specific analysis was required. The site-specific findings for Sequoyah are contained in the draft SEIS which was published in July of 2004 and

I have a copy of it here and there's copies of it, both a hard copy out on the table outside this room and CDs with this document available for you all.

This document contains analyses of the applicable site-specific issues as well as a review of

applicable site-specific issues as well as a review of the issues covered by the GEIS to determine whether the conclusions of the GEIS are valid for Sequoyah. In this process the NRC staff also reviews the environmental impacts of potential power generation alternatives to license renewal.

Next slide. For each environmental issue identified, an impact level is assigned. The NRC standard of significance for impacts was established using the White House Council on Environmental Quality terminology for significance. The NRC established three levels of significance for potential impacts -- small, moderate and large -- as defined in the slide.

For a small impact the effects are not detectable or so minor that they will neither destabilize nor noticeably alter any important attribute of the resource.

For a moderate impact the effects are sufficient to alter noticeably, but not destabilize, important attributes of the resource.

And for a large impact the effects are

clearly noticeable and are sufficient to destabilize important attributes of the resource.

While these impact level designations are used for most of the resource areas analyzed in this DSEIS, there are three areas that have their own impact level designations and they are discussed on the next slide.

So for special status species the impact significance determination language comes from the Endangered Species Act and the choices to describe the impacts are no effect, may affect but not likely to adversely affect, and may affect and is likely to adversely affect.

For cultural and historic resources the National Historic Preservation Act requires federal agencies to consider the effects of their undertakings on historic properties and, finally, for environmental justice under Executive Order 12898 federal agencies are responsible for identifying and addressing disproportionately high and adverse human health and environmental impacts on minority and low income populations.

So on these last slides you've seen now what the impact levels are that we'll use to describe here in the DSEIS.

1 Next slide. As a part of the environmental 2 review, the NRC staff considered cumulative impacts. impacts 3 Cumulative include the effects 4 environment from other past, present and reasonably foreseeable future human actions. 5 These effects not only include 6 7 operation of Sequoyah Nuclear Plant but also impacts from activities unrelated to Sequoyah, such as future 8 urbanization and energy producing facilities in the 9 10 area and also climate change. The analysis considers potential impacts 11 12 through the end of the current license term as well as 13 a 20-year license renewal period. The cumulative impacts on all resource 14 15 areas were found to be small with the following 16 exceptions. First, the cumulative impacts on surface 17 water would be small to moderate primarily due to 18 long-term surface water warming associated with climate 19 change. Second, cumulative impacts on terrestrial 20 21 would be moderate, primarily resources due 22 increasing urbanization. Next, the cumulative impacts on aquatic 23 resources would be large primarily due to the historical 24

change on the Tennessee River since the early 1900s and

the cumulative impact on global climate change would be moderate, primarily due to present and future global emissions of greenhouse gasses.

Next slide. So now that we've looked at cumulative impacts we're going to take a look at the site-specific impacts generated here by the Sequoyah Nuclear Plant. And this slide lists those impacts that the NRC staff reviewed for continued operation of Sequoyah Nuclear Plant during the proposed license renewal period.

Overall, the impacts for license renewal on all these issues were found to be small, which means the effects are not detectable or so minor that they will neither destabilize nor noticeably alter any important attribute of the resource.

Next slide. The National Environmental Policy Act mandates that each environmental impact statement consider alternatives to any proposed major federal action.

A major step in determining whether license renewal is reasonable or not is comparing the likely impacts of continued operation of the nuclear plant with the likely impacts of alternative means of power generation. Alternatives must provide an option that allows for power generation capability beyond the term

1 of the current nuclear power plant operating licenses to meet future system generating needs. 2 In the draft SEIS, NRC staff initially 3 considered 18 different alternatives and then narrowed 4 those 18 down to four alternatives and considered those 5 four alternatives in depth. 6 Additionally, the NRC staff considered 7 what would happen if no action is taken and Sequoyah 8 shuts down at the end of its current licenses without 9 10 a specific replacement alternative. This alternative would not provide power 11 12 generation capacity, nor would it meet the needs 13 currently met by Sequoyah. The NRC's preliminary conclusion is that 14 15 the environmental impacts of license renewal for 16 Sequoyah would be smaller than those feasible and 17 commercially viable alternatives. Continued operation would have small environmental impacts in all 18 19 areas. The staff concluded that continued operation of existing Sequoyah Nuclear is 20 the Plant the

Next slide. Based on a review of the likely environmental impacts from license renewal as well as potential environmental impacts of alternatives to license renewal, the NRC staff's preliminary

environmentally preferred alternative.

21

22

23

24

recommendation in the draft SEIS is that the adverse environmental impacts of license renewal for Sequoyah are not great enough to deny the option of license renewal for energy planning decision makers.

Next slide. This draft SEIS does not discuss potential environmental impacts of storing spent fuel for an extended period after the plant shuts down. For the term beyond the 20-year period of extended operation, the NRC addresses the management of spent nuclear fuel in the continued storage final fuel.

On August 26, 2014, the Commission approved publication of the continued storage final rule and the generic environmental impact statement that supports it. Under the final rule the environmental impacts of continued storage are generically determined in new reg 2157; its title is "Generic Environmental Impact Statement for Continued Storage of Spent Nuclear Fuel." And that information is codified in the NRC regulations at 10 CFR 51.23 and therefore those impacts do not need to be determined on a site-specific basis so they're not covered here in our DSEIS.

Next slide. So I'd like to reemphasize that the environmental review is not yet complete. Your comments today, and all written comments received by the end of the comment period on September 29th, will be

considered by the NRC staff as we develop the final SEIS, which we currently plan to issue in March 2015.

Those comments that are within the scope of the environmental review and provide new and significant information can help change the staff's The final SEIS will contain the staff's findings. final recommendation on acceptability of license renewal based on a work we've already performed and any new and significant information we receive in the form of comments during the comment period.

Next slide. As many of you know, I am a primary contact for the environmental review. Manny Sayoc is the primary contact for the safety review. Copies of the draft SEIS are available on CD in the entryway. In addition, the three libraries showing the slide have a hard copy of the draft SEIS.

You can also find electronic copies of the draft SEIS, along with other information about the Sequoyah Nuclear Plant license renewal review, online at the website shown. Copies of these slides are available out in the hallway so you don't need to write this down if you find it too long to write down. You can find it right outside.

Next slide. NRC staff will address written comments in the same way we address spoken

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

comments received today. You can submit written
comments online or via conventional mail. To submit
written comments online, visit the website
regulations.gov and search for Docket ID No. NRC
2013-0037. If you have written comments today you may
give them to any NRC staff member and those comments that
are made, other people's comments can also be viewed at
regulations.gov at that Docket ID number I just cited,
and that's available here.
This concludes my presentation and I'll
turn the meeting back over to Bob.
MR. HAGAR: All right. That was part 1 of
the meeting, now we're in part 2. Does anyone have any
questions about the material that was presented? David,
if you would please step up here, ask your question and
then we'll ask the NRC staff to respond.
MR. LOCKBURN: Good afternoon. My name is
David Lockburn. I have two questions. Shall I ask both
of them?
MR. HAGAR: Why don't you ask both of them
and we'll let the staff decide whether they can respond
to both of them at once or separately.
MR. LOCKBURN: Fair enough. The first
question was is the NRC's process for the environmental
assessments for license renewal different in any

1 appreciable way because TVA is a federal entity instead of a private company? 2 And the second question was regarding the 3 4 cumulative impacts, they were based on a projection of future activities. Is there a formal process to flag 5 and address any future activities that exceed the 6 7 projections that were made in good faith to this point? MR. HAGAR: Okay. Can you guys address 8 those separately or what? Why don't you just step up 9 Maybe let's take them separately. The first 10 11 question? 12 MR. DRUCKER: The first question was is 13 there any difference between this review and other reviews we've done because TVA is a government entity? 14 15 And I personally have been involved with two past 16 reviews, one out at Palo Verde, not a TVA plant, one down 17 at Grand Gulf, again not a TVA plant. And no, there were no differences in this review as compared to those two 18 19 or any others I would anticipate throughout the country. The process is exactly the same. 20 21 MR. HAGAR: Okay. And then the second 22 question? MR. DRUCKER: I want to make sure -- I 23 wasn't 100 percent, Dave, it was the cumulative impacts 24 25 and you wanted to know if we flag and identify things,

1	is it in the future?
2	MR. HAGAR: Again give your question
3	again, David.
4	MR. LOCKBURN: This is Dave Lockburn
5	again. The question is cumulative impacts you project
6	future activities and then try to assess. And the
7	question was if those future activities differ from what
8	the estimates were or the projections were, is there a
9	formal process to flag that and address that delta from
10	what was done now based on the projection?
11	MR. DRUCKER: You're talking about things
12	changing in the future?
13	MR. LOCKBURN: That's correct, yes.
14	MR. DRUCKER: Okay. Good question. From
15	a licensed renewal standpoint, if something changes
16	during a license renewal process, that will be fed into
17	the license renewal process. And we tried to make that
18	I hope I made that clear that we're not done. We just
19	produced a draft. The next step is to produce the final.
20	So at any time between now and, for example,
21	this comment period that ends September 29th, or even
22	after that, if something new and significant comes along
23	and comes into my knowledge and awareness, that will
24	feed into this process.
25	After the license renewal process is

1 complete and a license is granted, that would have to 2 feed -- changes from anything, any other changes whether it's cumulative or something that you're familiar with, 3 4 with safety, there would be other avenues that you would need to feed that information to the NRC. 5 I just want to point out that from a 6 7 cumulative standpoint, if you turn to Appendix E in the draft supplemental environment impact statement, there 8 is a list of the projects that we foresee today impacting 9 10 the region cumulatively. And so that's basically what you would look to. If there's something different that 11 12 you're aware of that's not in that Appendix E, I would 13 certainly want to be made aware of it. MR. LOCKBURN: Thanks. 14 15 MR. DRUCKER: Thank you. 16 David, did that answer your MR. HAGAR: 17 question? Very good. Does anyone else have questions 18 about the material that was presented? All right. I 19 don't see any hands. So now we'll enter the third part of the 20 21 program, the third part of the meeting. This is an 22 opportunity for you to provide your input, any comments 23 you have that relate to the environmental impact of renewing the license of Sequoyah Nuclear Plant. 24

And again I didn't have anybody sign up so

now's the time if you want to speak, now is the time to raise your hand. I'll call on the people who raise their hands and you can come on up here and ask.

All right. I see no hands and I interpret that to mean that no one has any input they want to provide in this meeting. So Brian Wittick, do you have any closing comments?

MR. WITTICK: Good afternoon. My name is Brian Wittick, I'm the chief of the environmental projects branch.

First, I wanted to thank everyone for coming out today. We really value everyone's comments, any feedback that's provided. That's the purpose of the meeting that we're having here today is to try to solicit comments, insights, questions from local members of the public. It's an important part of the Nuclear Regulatory Commission's process or values to be open and transparent and engage members of the public.

During the environmental impact review process, we have two opportunities for engaging the public. The first is when we first receive the environmental report. We have a public scoping meeting that was conducted about a year ago, and this is the second and last opportunity for the public to provide comment.

1 As David mentioned, the comment period for 2 the draft environmental impact statement runs through the 29th of September -- could you move back to the 3 4 previous slide that provides for comments? I think I can. It's kind of 5 MR. HAGAR: awkward here. 6 So we have until the 29th of 7 MR. WITTICK: September for everyone to submit their comments. 8 David mentioned, this is the process to do so. Or on the 9 slide before that David provided his email. You can 10 11 provide comments to any one of us. 12 And the last thing that I want to mention 13 is if you have any comments or questions but you didn't feel comfortable getting up and asking, we have a number 14 15 of members of the Nuclear Regulatory Commission staff, 16 we have Gaillard Smith who's the senior resident out at 17 the Sequoyah Plant with us and Philip is the resident out at the plant right now. Bob, David, myself, we'll 18 19 all be around after the meeting for a time for anyone that wants to engage us and has any questions. 20 21 Again, I thank everybody for coming out 22 today and I'll turn it back over to Bob. Well thanks Brian. I want to 23 MR. HAGAR: remind you that we'd like you to fill out a meeting 24

feedback form and reinforce what Brian just said, that

1	the NRC staff is going to be available after the meeting;
2	if you want to have some one-on-one conversations you
3	do that at that time.
4	And in advance we want to thank you for
5	providing feedback on this meeting and with that this
6	meeting is concluded. NRC will stand by to meet with
7	you one-on-one if you wish. Thank you all for your
8	time.
9	(Whereupon, the Sequoyah Public Meeting
10	having been concluded, went off the record at 2:29 p.m.)
11	
12	
13	
14	
15	
16	
17	
18	
	II