

# **ATTACHMENT D**

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**Official Transcript of Proceedings**

**NUCLEAR REGULATORY COMMISSION**

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1 these periods. And I submit that although we see in  
2 there recently you have several drought periods, that  
3 there isn't necessarily a strong trend into those  
4 lower flow periods.

5 JUDGE TRIKOUROS: It just appears that  
6 when there's persistent rainfall in the 35-inch range.  
7 I'm sorry. Can you hear me now?

8 MR. VAIL: Yes.

9 JUDGE TRIKOUROS: When rainfall is in the  
10 35 inch range, that's kind of a low rainfall for this  
11 area it looks like and over the last -- from about  
12 2000 to today it's been hanging in that 35 inch range  
13 for fairly long periods of time. It's hard to tell  
14 with this chart really how it correlates to the dam  
15 flow because, yes, it is counterintuitive. But you  
16 didn't see a trend here either. In other words,  
17 rainfall trend did not concern you in doing these  
18 evaluations. You looked at that and you feel --

19 MR. VAIL: Yes, we clearly acknowledge  
20 that we had two relatively recent drought periods.  
21 The 2000 drought and the one that we're currently in  
22 were significant droughts. But we don't see those as  
23 necessarily being indicative of long term trend.

24 JUDGE TRIKOUROS: Thank you.

25 MR. VAIL: So the next slide, slide 16.

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1 These are my conclusions and then I'll be handing it  
2 over to Dr. Kincaid. We acknowledge that the wet  
3 cooling towers will reduce the flow whenever they do  
4 consumptively use water. So we will have a reduction  
5 in flow.

6 The consumptive water use of the plants is  
7 nearly constant. It doesn't vary seasonally  
8 significantly. It's basically a constant consumptive  
9 loss rate. So the fraction of reduction --

10 JUDGE JACKSON: Your microphone.

11 MR. VAIL: I just heard myself. Wow,  
12 that's scary.

13 The fractional reduction in flow will  
14 increase as the upstream flow decreases. There's not  
15 any real mystery in that and that the consumptive  
16 water uses between Thurmond Dam and the Vogtle site  
17 are more than offset by the flows that we are picking  
18 up between Thurmond Dam and the Vogtle site.

19 And that we believe that the 3800 cfs was  
20 appropriate for the NEPA analysis, although we did  
21 include values at 3000 and 2000. And the staff at  
22 this point has no reason to believe that the ongoing  
23 drought is representative of a persistent trend into  
24 the future and that we believe that our conclusions of  
25 the water cumulative impacts being small is

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1 appropriate.

2 JUDGE JACKSON: So after having looked at  
3 this for a long time and evaluated it you would say  
4 that the long-term impact according to your best guess  
5 right now, your best estimate, would be on the order  
6 of perhaps three to four percent of the river flow.  
7 Is that --

8 MR. VAIL: That's correct.

9 JUDGE JACKSON: Okay. Thanks.

10 (Off the record comments.)

11 DR. KINCAID: We'll move onto the  
12 groundwater segment. Slide 17 please. My name is Dr.  
13 Charles Kincaid. I have a Ph.D. from Utah State  
14 University in Engineering and I've been working at the  
15 Pacific Northwest National Laboratory in the area of  
16 surface water, actually in the area of soil physics  
17 and groundwater, for the better part of 29 years.

18 The topics I'll touch on are four. One is  
19 on groundwater resource use and then there will be  
20 three on quality aspects. One of those is on tritium  
21 and the groundwater aquifer, the Savannah River Site  
22 groundwater plumes and saltwater intrusion and then  
23 I'll have a slide again on just concluding remarks.  
24 Next slide please.

25 On slide 18, I have some summary remarks

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