

February 11, 2009

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of )  
 )  
SOUTHERN NUCLEAR OPERATING CO. ) Docket No. 52-011-ESP  
 )  
(Early Site Permit for Vogtle ESP Site) )

NRC STAFF MOTION *IN LIMINE* TO EXCLUDE PORTIONS OF  
REBUTTAL TESTIMONY AND EXHIBITS FILED BY JOINT INTERVENORS

Pursuant to 10 C.F.R. § 2.323 and the Atomic Safety and Licensing Board's ("Board") November 13, 2008 Memorandum and Order providing a Revised General Schedule (unpublished) ("Scheduling Order"), the NRC staff ("Staff") submits this motion to exclude portions of the pre-filed rebuttal testimony and exhibits filed by Joint Intervenors<sup>1</sup> on February 6, 2009 ("Joint Intervenors' Rebuttal Testimony"). For the reasons set forth below, the Staff submits that portions of the Joint Intervenors' Rebuttal Testimony and exhibits are outside the scope of this proceeding. Pursuant to 10 C.F.R. § 2.323(b), the Staff has contacted the Applicant and Joint Intervenors in an effort to resolve the issues raised in this motion. The position of the other parties with respect to specific aspects of the motion is described below.

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<sup>1</sup> Joint Intervenors include the Center for a Sustainable Coast, Savannah Riverkeeper, Southern Alliance for Clean Energy, Atlanta Women's Action for New Directions, and Blue Ridge Environmental Defense League.

## BACKGROUND

As stated in more detail in the Staff's statement of position and its pre-filed direct testimony, this case involves an application for an early site permit filed by the Southern Nuclear Operating Company ("Applicant"). This contested hearing concerns three contentions admitted by the Board. On January 9, 2009, in conformance with the Board's Scheduling Order, the Joint Intervenors, Applicant, and the Staff filed their pre-filed direct testimony and exhibits for contentions EC 1.2, EC 1.3 and EC 6.0. On January 26, 2009, the Board issued its ruling on motions *in limine* filed by the Staff and by the Applicant, respectively, on January 14, 2009. See *Southern Nuclear Operating Co. (Early Site Permit for Vogtle ESP Site) (Ruling on In Limine Motions)*, unpublished order (January 26, 2009) ("Board *In Limine* Ruling").

On February 6, 2009, in conformance with the Board's Scheduling Order, the Joint Intervenors, Applicant, and the Staff filed their pre-filed rebuttal testimony and exhibits for contentions EC 1.2, EC 1.3 and EC 6.0. Pursuant to the Scheduling Order, the Staff files this motion *in limine* to exclude portions of the Joint Intervenors' rebuttal testimony and associated exhibits concerning contentions EC 1.2 and EC 1.3.

## DISCUSSION

### A. Legal Standard

In an evidentiary hearing, "[o]nly relevant, material, and reliable evidence which is not unduly repetitious will be admitted. Immaterial or irrelevant parts of an admissible document will be segregated and excluded so far as is practicable." 10 C.F.R. § 2.337(a). While the "strict rules of evidence do not apply to written submissions," Licensing Boards may "on motion or on the presiding officer's own initiative, strike any portion of a written presentation or a response to a written question that is irrelevant, immaterial, unreliable, duplicative or cumulative." 10 C.F.R. § 2.319(d); *see also* § 2.319(e).

B. Testimony and Exhibits to be Excluded

1. Contention 1.2

With respect to Contention 1.2 (“EC 1.2”), the Staff believes that portions of the prefiled rebuttal testimony of Barry W. Sulkin (“Sulkin Rebuttal Testimony”) should be excluded because they concern a topic – the cumulative impacts of water withdrawals by facilities on the Savannah River other than the four Vogtle Units – that the Board has ruled to be outside the scope of the contention. In the Board’s Order ruling on the Applicant’s Motion for Summary Disposition for Contention EC 1.2, *Southern Nuclear Operating Co.* (Early Site Permit for Vogtle ESP Site), LBP-08-2, 67 NRC 54 (2008), the Board held that “Joint Intervenors current argument that the FEIS must consider the cumulative impacts of water withdrawals by other facilities on the Savannah River. . . is outside the scope of EC 1.2 and will not be considered further by the Board.” *Id.* at 77-78. Moreover, in its recent ruling on the motions *in limine* filed by the Staff and by the Applicant on the Joint Intervenors’ direct testimony and exhibits, the Board again found that references to such impacts were outside the scope of the contention. *See Board In Limine Ruling* at 2-3.

Nevertheless, in Mr. Sulkin’s rebuttal testimony at Answers 9, 11 and 14, the Joint Intervenors again seek to introduce the issue of cumulative impacts related to water withdrawals by facilities other than the four Vogtle Units. Specifically, in his response to Question 9, Mr. Sulkin states that “it is impossible to say anything definitive about the *cumulative impacts of entrainment* without knowing something about the *current withdrawal rates at the SRS D-area Powerhouse*, as well as *other major withdrawals* in the Savannah River Basin.” Sulkin Rebuttal Testimony at A9 (emphasis added). Because this statement concerns cumulative entrainment impacts of water users other than the existing and proposed Vogtle units, the first sentence of the third paragraph of A9 should be excluded.

Further, in his response to Question 11, Mr. Sulkin states that “[t]he Staff reasons that...it is appropriate to disregard upstream withdrawals and discharges in the analysis,” that “[e]very withdrawal has the potential for *impingement and entrainment*,” and that “[t]o determine the cumulative impacts of the additional Units, it is necessary to know something about *impingement and entrainment associated with upstream withdrawals*.” Sulkin Rebuttal Testimony at A11 (emphasis added). Because these statements are directed at the cumulative impacts of upstream withdrawals and discharges, not those of the existing and proposed Vogtle Units, the second paragraph of A11 should be excluded, as well as the final sentence of the third paragraph.

Finally, in response to Question 14, Mr. Sulkin states that “using the Thurmond discharge fails to capture cumulative impacts of *upstream withdrawals and discharges*.” Sulkin Rebuttal Testimony at A14 (emphasis added). He further states that the “Thurmond discharge is totally inadequate for *cumulative impacts analysis* of the two proposed Units *in combination with other past, present, and reasonably foreseeable future withdrawals and discharges on the Savannah River*.” *Id.* (emphasis added). Because each of these statements seeks to introduce consideration of cumulative impacts from water users other than the existing and proposed Vogtle Units, the entirety of A14 should be excluded.

In summary, because the Board has repeatedly ruled that discussion of cumulative impacts from withdrawals at facilities other than the four Vogtle Units is outside the scope of EC 1.2, these portions of Mr. Sulkin’s rebuttal testimony should be excluded.

The Joint Intervenors indicate that they oppose this portion of the Staff’s motion. The Applicant agrees with this portion of the motion.

## 2. Contention 1.3

With respect to Contention 1.3 (“EC 1.3”), the Staff believes that certain answers from the rebuttal testimony of William Powers (“Powers Rebuttal Testimony”) and portions of two

associated exhibits should be excluded because they address a topic – the viability of a parallel wet-dry cooling system – that the Board has held to be outside the scope of this contention. Specifically, portions of Mr. Powers’ answers to Questions 2, 4, 5, 6, 7, and 8 as well as portions of two exhibits, JTI000049 and JTI00050, address a “parallel dry-wet cooling system.” The specific portions are discussed further below. In its Memorandum and Order ruling on the Applicant’s Motion for Summary Disposition on Contention EC 1.3, the Board found that “assuming EC 1.3 goes to an evidentiary hearing, Joint Intervenors will be free to present arguments and evidence regarding the merits of dry cooling and the impacts of a wet cooling system upon ‘extremely sensitive biological resources,’ *but any attempt to introduce into this litigation the subject of the viability of a hybrid wet/dry cooling system as a NEPA alternative is precluded as outside the scope of that contention as admitted. Southern Nuclear Operating Co.* (Early Site Permit for Vogtle ESP Site), LBP-08-3, 67 NRC 85, 102-03 (2008) (emphasis added). Additionally, in response to the Staff and Applicant *in limine* motions regarding prefiled direct testimony, the Board agreed to strike portions of the Joint Intervenors’ testimony that discussed hybrid cooling. See Board *In Limine* Ruling at 4-5. As discussed below, the Applicant agrees with this portion of the Staff’s motion. The Joint Intervenors oppose this portion of the Staff’s motion, with the exceptions noted below.

The specific portions of the Joint Intervenors’ rebuttal testimony and exhibits that should be struck are:

- a. Powers Rebuttal Testimony
  - i. Answer 2 should be struck beginning with the 4th full sentence until the end of the paragraph. This answer discusses North Anna Unit 3. While the answer discusses the maximum energy efficiency penalty “presumably when operating with 100% dry cooling,” this reference to a situation in which only the dry cooling portion of the parallel dry-wet cooling system is used is still

not admissible. Answer 2 itself states that North Anna Unit 3 uses a “combination of wet and dry cooling.” Mr. Powers’ emphasis on situations where such a parallel wet-dry cooling system would utilize 100% dry-cooling does not change the fact that the description relies on the features and operation of a parallel wet-dry system, and thus remains inadmissible. Such statements necessarily seek to compare a parallel wet-dry cooling system to the proposed cooling system at VEGP and, thus, should be stricken from the record.

- ii. In Answer 4, the last full sentence in the first paragraph should be struck. This sentence references a portion of a Dominion Nuclear presentation attached as Exhibit JTI000049. This slide is from a portion of the exhibit entitled “Hybrid Cooling Technology North Anna Unit 3.” See Exhibit JTI000049 at 8 (portion quoted in testimony) and 6 (Title Slide for this portion of the testimony). Because this statement was made in regard to the performance of a hybrid cooling system, it should be struck from Mr. Powers’ Rebuttal Testimony.
- iii. In Answer 5, at the end of the second sentence (which states that “the dry cooling system would require about three times as much surface area”), the reference to JTI000049 should be struck. The Staff assumes this portion of Mr. Powers’ Rebuttal Testimony was referring to a slide on page 8 of the exhibit. However, this slide is also in the section of the exhibit entitled “Hybrid Cooling Technology North Anna Unit 3”; thus, this reference in the testimony should be struck as outside the scope of this contention.

- iv. In Answer 6, the sixth full sentence should be struck because it states that a GE-ESBWR “has been proposed by Dominion Nuclear for the North Anna 3 plant in Virginia.” As discussed above, North Anna Unit 3, if approved, will utilize a hybrid cooling system; therefore, this assertion is outside the scope of Contention EC 1.3.<sup>2</sup>
  - v. The first sentence of Answer 7 and the reference in Answer 8 to “North Anna 3” should be struck because they also discuss the North Anna Unit 3 hybrid cooling system.
- b. Joint Intervenors’ Exhibits
- i. Exhibit JTI000049 should be struck in its entirety. The title of the presentation is “Thermal Issues and a Hybrid Cooling Technology in Siting North Anna Unit 3.” The entire presentation concerns the hybrid cooling technology proposed for North Anna Unit 3. In the event that the Board admits portions of the presentation, the Staff submits that the following slides that specifically speak to hybrid cooling be struck. (As noted below, with the exception of slide 2 on page 8, the Joint Intervenors do not object to this portion of the motion.)

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<sup>2</sup> The Staff also wishes to provide clarification regarding another statement in Mr. Powers’ testimony. Exhibit JTI000052 includes an excerpt from the plant parameter envelope (“PPE”) attached to the North Anna Early Site Permit (“ESP”). Answer 6 of the Powers Rebuttal Testimony states that “[a] condition of the NRC Early Site Permit for North Anna 3 and 4 is that North Anna 4, if built, will be 100% dry cooled at all times (Exhibit JTI000052).” Mr. Powers makes a similar statement in Answer 7 (“Dominion Nuclear proposed to build North Anna 4 as a dry-cooled only plant. That is a *condition* of the NRC’s ESP for North Anna 3 and 4.”). Powers Rebuttal Testimony at A7 (emphasis added). However, the plant parameter values in the North Anna ESP to which Mr. Powers refers are not license conditions, but postulated parameters used as a surrogate for the Staff environmental review; use of a PPE for the ESP-stage environmental review does not involve a Staff determination that any specific reactor design will satisfy each parameter. See, e.g., Exhibit JTI000050 at 3-3 (“The PPE reflects the value of each parameter that it encompasses rather than the characteristics of any specific reactor design.”).

Slide 1 on p. 2: The title.

Slide 2 on p. 2: The bullet "What is a hybrid cooling system?"

Slide 2 on p. 4: The bullet "Unit 3 cooling system changed in 2005 from open to closed cycle due to agency and public concerns."

Slide 3 on p. 6: Entire slide.

Page 7: All three slides in their entirety.

Page 8: Slides 2 and 3 in their entirety. (The Joint Intervenors do not agree to strike slide 2 on page 8.)

Page 9: The first slide in its entirety.

- ii. In Exhibit JTI000050, the Staff requests that all discussion of the parallel wet-dry cooling system for North Anna Unit 3 be struck. The references that should be struck are:

Page 3-3: First partial sentence on page. (The Joint Intervenors do not object to this portion of the motion.)

Page 3-9: Beginning with the second full sentence "[t]he proposed Unit 3 would use a closed-cycle, combination wet and dry cooling tower system" up to and including the next two full paragraphs. (The Joint Intervenors do not object to this portion of the motion in part. The Joint Intervenors assert that the portions of this section that discuss situations in which Unit 3 is only utilizing the dry portion of its parallel wet-dry cooling system should not be struck.)

Page 3-10: The entire section entitled "Unit 3 Normal Cooling." (The Joint Intervenors do not object to this portion of the motion in part. The Joint Intervenors assert that the portions of this section that discuss situations in which Unit 3 is only utilizing the dry portion of its parallel wet-dry cooling system should remain in the exhibit.)

Page 3-12: The first sentence under the heading "Discharge System," and the entire first paragraph under the section "Heat Dissipation Systems." (The Joint Intervenors do not agree that the first sentence under the heading "Discharge System" should be struck. However, the Joint Intervenors do not object to striking the first paragraph under the section "Heat Dissipation Systems.")

As discussed above, the Applicant agrees with this portion of the motion. As detailed above, the Joint Intervenors do not oppose striking certain portions of exhibits JTI000049 and

JTI000050, but do not agree that any of the Powers Rebuttal Testimony should be struck.

CONCLUSION

For the reasons discussed above, the Staff moves that the identified portions of the Joint Intervenors' Rebuttal Testimony and associated exhibits be excluded from consideration in this proceeding. With the exceptions identified above, the Joint Intervenors oppose the motion. The Applicant agrees with the Staff motion.

Respectfully submitted,

**/signed (electronically) by/**

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**/Executed in Accord With 10 C.F.R. § 2.304(d)/**

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Dated at Rockville, Maryland  
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CERTIFICATE OF SERVICE

I hereby certify that copies of the “NRC STAFF MOTION *IN LIMINE* TO EXCLUDE PORTIONS OF REBUTTAL TESTIMONY AND EXHIBITS FILED BY JOINT INTERVENORS” have been served upon the following persons by Electronic Information Exchange this 11<sup>th</sup> day of February, 2009:

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