UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	**Docket No. 52-011-ESP**
Southern Nuclear Operating Company	)	**ASLBP No. 07-850-01-ESP-BD01**
(Early Site Permit for Vogtle ESP Site)	)	**January 9, 2009**

SOUTHERN NUCLEAR OPERATING COMPANY'S INITIAL STATEMENT OF POSITION ON INTERVENORS' ENVIRONMENTAL CONTENTION 6.0 (IMPACTS ASSOCIATED WITH DREDGING THE SAVANNAH RIVER FEDERAL NAVIGATION CHANNEL)

Pursuant to 10 C.F.R. § 2.1207(a)(1) and the Atomic Safety and Licensing Board's ("ASLB" or "Board") May 7, 2007, July 3, 2008, July 14, 2008 and October 24, 2008 Orders,[1] Southern Nuclear Operating Company ("SNC") submits its initial statement of position ("Position Statement") and written, prefiled testimony on Environmental Contention 6.0 ("EC 6.0"). This Statement is based on the testimony of Mr. Jeffrey Neubert, Mr. Benjamin Smith, Captain H. David Scott, Mr. Tom Moorer, and Dr. Charles Coutant and SNC's Exhibits, which are being filed concurrently herewith. For the reasons set forth below and supported by the associated testimony and evidence, Joint Intervenors' claims made in EC 6.0 cannot be sustained.

[1] May 7, 2007 Memorandum and Order (Prehearing Conference and Initial Scheduling Order); July 3, 2008 Memorandum and Order (Revised General Schedule); July 14, 2008 Memorandum and Order (Revised General Schedule); October 24, 2008 Memorandum and Order (Revised General Schedule).

I. PROCEDURAL BACKGROUND

On August 14, 2006, SNC submitted an Early Site Permit ("ESP") application in accordance with 10 C.F.R. Part 52 requesting approval for siting one or more new nuclear reactors at the existing Vogtle Electric Generating Plant ("VEGP" or "Vogtle") site. The application, which was accepted on September 19, 2006, included an Environmental Report ("ER"), and in November 2006, SNC submitted a revised ER. *See* Exhibit SNC000001 ("Environmental Report"). On October 12, 2006, the Nuclear Regulatory Commission ("Commission" or "NRC") issued a "Notice of Hearing and Opportunity to Petition for Leave to Intervene," which notified interested parties that a hearing would be held to consider SNC's application for an ESP. *See* 71 Fed. Reg. 60,195 (Oct. 12, 2006). In response, on December 11, 2006, Joint Intervenors (then Joint Petitioners) filed a Petition for Intervention seeking to have admitted seven contentions related to the ER, arising under the National Environmental Policy Act ("NEPA"), designated Environmental Contentions ("EC") 1.1, 1.2, 1.3, 2, 3, 4, and 5. On March 12, 2007, the Board admitted two contentions, thus admitting Joint Intervenors as parties to this proceeding. *See* March 12, 2007 Memorandum and Order (Ruling on Standing and Contentions).

On September 10, 2007, as part of its obligations under NEPA, the NRC Staff released its Draft Environmental Impact Statement ("DEIS"), which incorporates data from the original and subsequently revised ER, SNC's responses to the Requests for Additional Information ("RAIs") and information the Staff compiled from other sources. *See* Office of New Reactors, U.S. Nuclear Regulatory Commission, [DEIS] for an [ESP] at the [VEGP] Site, NUREG-1872 (Sept. 2007). On August 22, 2008, the Staff published its Final Environmental Impact Statement ("FEIS"). *See* Exhibit NRC000001 (FEIS).

Following publication of the FEIS, Joint Intervenors filed a motion to admit a new contention, EC 6.0. *See* Joint Intervenors' Motion to Admit New Contention, September 22, 2008 ("Joint Intervenors' Motion"). SNC opposed the motion on the grounds that the new contention was not based on information that differed significantly from what was in the ER or DEIS and was therefore untimely. *See* [SNC's] Answer to Joint Intervenors' Motion to Admit New Contention, October 6, 2008. Additionally, SNC argued that the proposed contention did not satisfy the general admissibility requirements of 10 C.F.R. § 2.309. *Id.* On October 24, 2008, the Board admitted EC 6.0 – "Final Environmental Impact Statement (FEIS) Fails to Provide Adequate Discussion of Impacts Associated with Dredging the Savannah River Federal Navigation Channel." *See* October 24, 2008 Memorandum and Order (Ruling on Motion to Admit New Contention). As admitted, EC 6.0 reads:

> Because Army Corps of Engineers (Corps) dredging of the Savannah River Federal navigation channel has potentially significant impacts on the environment, the NRC staff's conclusion, as set forth in the "Cumulative Impacts" chapter of the FEIS, that such impacts would be moderate is inadequately supported. Additionally, the FEIS fails to address adequately the impacts of the Corps' upstream reservoir operations as they support navigation, an important aspect of the problem.

Id. at App. A.

In accordance with its October 12, 2006 Notice of Hearing, the Director, upon completion of this Hearing, will propose findings on two safety issues and one NEPA issue. 71 Fed. Reg. at 60,195. With respect to the NEPA issue, and in a contested hearing such as this, the Board will consider "[w]hether, in accordance with the requirements of subpart A of 10 CFR part 51, the ESP should be issued as proposed." *Id.* This Position Statement and supporting testimony and evidence demonstrate that the NRC Staff complied with NEPA with respect to the issues raised by Contention EC 6.0. Regardless, the testimony and evidence presented herein

supplements the NRC Staff analysis and provides additional bases for issuing the ESP. Thus, Joint Intervenors' claims in EC 6.0 regarding the adequacy of the FEIS cumulative impacts analysis cannot be sustained.

II. APPLICABLE LEGAL STANDARDS

A. NRC's NEPA Obligations

Section 102(2) of NEPA requires all federal agencies to prepare detailed statements assessing the environmental impact of and alternatives to major federal actions significantly affecting the environment. *See* 42 U.S.C. § 4322. The Council on Environmental Quality ("CEQ") has promulgated regulations to guide agencies in complying with NEPA. *See* 40 C.F.R. Part 1500. While the CEQ's regulations are entitled to deference, they are not binding on the NRC unless expressly adopted. *See In re La. Energy Servs., L.P.* (Nat'l Enrichment Facility), 61 N.R.C. 385, 403 (2005). The NRC has promulgated its own regulations implementing NEPA, which are found in 10 C.F.R. Part 51. "Together, [NEPA] and the corresponding regulations require an applicant and the Staff to consider the potential environmental effects of the proposed action." *Id.*

Subpart A of 10 C.F.R. Part 51 implements section 102(2) of NEPA for NRC's domestic licensing and related regulatory functions. Section 51.45 requires the applicant to submit an ER which "shall contain a description of the proposed action, a statement of its purposes, a description of the environment affected, and discuss," *inter alia* "[t]he impact[s] of the proposed action on the environment . . . in proportion to their significance." In accordance with §§ 51.70 – 51.75, the NRC staff is responsible for reviewing the ER and preparing a DEIS. Finally, following distribution of the DEIS for public comment, the staff is required to review any

comments it receives, along with the information submitted by the applicant and any supplemental information and to prepare an FEIS. *See* 10 C.F.R. § 51.90.

1. Adequacy of EISs – Hard Look and the Rule of Reason

An EIS is sufficient and satisfies NEPA if it contains "an adequate compilation of relevant information, has analyzed it reasonably, has not ignored pertinent information, and has made disclosures to the public." *Vt. Public Interest Research Group v. U.S. Fish & Wildlife Serv.*, 247 F. Supp. 2d 495, 517 (D. Vt. 2002) (internal quotations omitted). NEPA does not require agencies to "elevate environmental concerns over other appropriate considerations. Rather it require[s] only that the agency take a 'hard look' at the environmental consequences before taking a major action." *Balt. Gas & Elec. Co. v. Natural Res. Defense Council*, 462 U.S. 87, 97 (1983) (internal citation omitted). As the Supreme Court has held, Congress authorized agencies to adopt "an appropriate method of conducting the hard look" required by NEPA. *Id.* at 100-101. Importantly,

> [t]hat the Intervenors would have preferred that the FEIS contain additional details on any particular issue is not, standing alone, probative of the FEIS's adequacy. "One can always flyspeck an FEIS to come up with more specifics and more areas of discussion that conceivably could have been included." The salient question is whether the FEIS took the required 'hard look' at the relevant environmental consequences.

In re Hydro Res., Inc. (P.O. Box 777, Crownpoint, New Mexico 87313), 64 N.R.C. 53, 80 n.27 (2006) (internal citation omitted).

In other words, the "hard look" requirement is tempered by a "rule of reason." *See In re La. Energy Servs.* (Claiborne Enrichment Center), 45 N.R.C. 367, 399 (1997). "That standard is not one of perfection; rather, it is a question of reasonableness." *Id.* The Supreme Court has characterized the "rule of reason" as such:

> [A]n EIS is required to furnish only such information as appears to be reasonably necessary under the circumstances for evaluation of the project rather than to be so all-encompassing in scope that the task of preparing it would become either fruitless or well nigh impossible.

New York v. Kleppe, 429 U.S. 1307, 1311 (1976), *citing Natural Res. Def. Council v. Callaway*, 524 F.2d 79, 88 (2d Cir. 1975). More generally, the CEQ has described the "rule of reason" as "ensur[ing] that common sense and reason are not lost in the rubric of regulation." 51 Fed. Reg. 15,618, 15,621 (April 25, 1986). "NEPA does not call for certainty or precision, but an *estimate* of anticipated (not unduly speculative) impacts." *In re La. Energy Servs., L.P.* (Nat'l Enrichment Facility), 62 N.R.C. 523, 536 (2005).

NEPA does not require an EIS to "be exhaustive to the point of discussing all possible details bearing on the proposed action," as there is "undoubtedly always room for additional consideration of most potential environmental impacts." *Vt. Public Interest Research Group,* 247 F. Supp. 2d at 518, 524. The fact that an FEIS "may not go into great detail on every impact" does not mean that an agency failed to take a hard look. *See Piedmont Envtl. Council v. U.S. Dept. of Transp.*, 159 F. Supp. 2d 260, 275-76 (W.D. Va. 2001) (holding that forty page discussion in the FEIS of all environmental consequences and studies satisfied the requisite hard look); *Anson v. Eastburn*, 582 F. Supp. 18, 21 (S.D. Ind. 1983) (ruling that agency is not required "to review all possible impacts or all possible alternatives to the proposed action," and that "there is no requirement that every conceivable study be performed and that each problem be documented from every angle"). Rather, an FEIS "shall be kept concise and shall be no longer than absolutely necessary to comply with NEPA." *Piedmont*, 159 F. Supp. 2d at 275. "[O]nce environmental concerns are adequately identified and evaluated by the agency, NEPA places no further constraint on agency actions." *Citizens' Comm. to Save Our Canyons v. Krueger*, 513 F.3d 1169, 1179 (10th Cir. 2008).

2. Scope of EISs

Agencies have "considerable discretion" in determining the scope of their EISs. *Earth Island Inst. v. U.S. Forest Serv.*, 351 F.3d 1291, 1305 (9th Cir. 2003); *see also Thomas v. Peterson*, 753 F.2d 754, 758 (9th Cir. 1985). Section 1508.25 of the CEQ's regulations guides agencies to consider three types of actions, and three types of impacts to determine the scope of an environmental impact statement. 40 C.F.R. §1508.25. The types of actions include:

> (1) Connected actions, which means that they are closely related and therefore should be discussed in the same impact statement. Actions are connected if they:
>
> (i) Automatically trigger other actions which may require environmental impact statements.
>
> (ii) Cannot or will not proceed unless other actions are taken previously or simultaneously.
>
> (iii) Are interdependent parts of a larger action and depend on the larger action for their justification.
>
> (2) Cumulative actions, which when viewed with other proposed actions have cumulatively significant impacts and should therefore be discussed in the same impact statement.

40 C.F.R. § 1508.25(a).

Agencies must also analyze three types of impacts to determine the scope of an EIS: direct, indirect and cumulative impacts. 40 C.F.R. § 1508.25(c). A cumulative impact is defined as:

> the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

40 C.F.R. § 1508.7.

Again, because NRC has not specifically adopted these provisions, these definitions are not binding on the NRC. *See In re La. Energy Servs.*, 61 N.R.C. at 403. However, they do,

together with the rule of reason, provide guidance on the scope of the cumulative impacts analysis.

B. NEPA Contentions and Contested Hearings

Contentions challenging the content or adequacy of the NRC Staff's EIS arise under NEPA. *See* 10 C.F.R. § 2.309(f)(2). When the adequacy of the staff's analysis is challenged, "[i]n connection with any admitted NEPA contentions, the [Board's] role in the NEPA analysis is similar to that of a federal court, in that the Board's job is 'to ensure that the agency has adequately considered and disclosed the environmental impacts of its actions.'" *In re La. Energy Servs.*, 61 N.R.C. at 403 (internal citations omitted). The Board reviews contested issues *de novo*, which means it must apply for itself the same substantive standard applicable to the Staff's NEPA review, i.e., the "hard look" standard, subject to the "rule of reason." *See Ka Makani 'O Kohala Ohana Inc. v. Dep't of Water Supply*, 295 F.3d 955, 959 (9th Cir. 2002). Thus, while the Board must "bring [its] own 'de novo' judgment to bear," it must also apply the same standards applicable to the Staff for assessing impacts under NEPA. *See In re Exelon Generation Co., LLC* (Early Site Permit for Clinton ESP Site), 62 N.R.C. 134, *9 (2005); *Westlands Water Dist. v. U.S. Dep't of Interior*, 376 F.3d 853, 865 (9th Cir. 2004). In this case, therefore, the Board must simply decide whether the analysis and conclusions in the EIS contain "an adequate compilation of relevant information, has analyzed it reasonably, has not ignored pertinent information, and has made disclosures to the public." *Vt. Public Interest Group*, 247 F. Supp. 2d at 518.

According to the NRC's rules of practice, the Applicant generally has the burden of proof, unless the presiding officer orders otherwise. 10 C.F.R. § 2.325. However, the NRC has the burden of complying with NEPA. "[W]hen the Applicant becomes a proponent of a particular challenged position set forth in the EIS, the Applicant, as such a proponent, also has

the burden on that matter." *In re La. Energy Servs.*, 45 N.R.C. at 373. Thus, SNC and the Staff share the burden of demonstrating that the EIS complies with NEPA.

III. SNC'S WITNESSES

SNC's testimony on EC 6.0 will be presented by the following highly-qualified witnesses:

A. Mr. Jeffrey L. Neubert

Mr. Neubert is employed by Westinghouse Electric Company as the Acting Manager of Logistics, NPP. He is responsible for activities related to the delivery of components for Westinghouse's AP1000™ design nuclear power plant being supplied under Engineering, Procurement and Construction Contracts, including with respect to delivery of such components, logistics planning, transportation, warehousing and inventory management. Together with Mr. Smith and Captain Scott, Mr. Neubert's testimony describes the optimal and desired method of delivery of heavy components to the Vogtle Units 3 and 4 construction site via barge. His testimony summarizes the analysis of the dredging and snag removal needs of the Federal navigation channel in the Savannah River. *See* SNC's Testimony of Jeffrey Neubert, Benjamin Smith, and David Scott Concerning 6.0 ("Neubert/Smith/Scott 6.0 Testimony").

B. Mr. Benjamin Smith

Mr. Smith is employed by Stevens Towing Company as the Operations Manager. He is responsible for planning and supervising all operations, both inland and offshore, for a fleet of nine tugs and twenty-five barges, which operate on the Savannah River. Together with Mr. Neubert and Captain Scott, Mr. Smith will testify regarding delivery of components for construction of Units 3 and 4 and dredging and snag removal needs of the Federal navigation channel in the Savannah River. *See id.*

C. Captain H. David Scott

Captain Scott is the Owner, President and Principal Surveyor for Southeastern Marine Surveying Company, which operates on the Savannah River. He is a member of the National Association of Marine Surveyors (NAMS). Captain Scott conducted a survey of approximately 110 miles of the Savannah River. Together with Messrs. Neubert and Smith, Captain Scott will testify as to dredging and snag removal needs of the Federal navigation channel in the Savannah River. *See id.*

D. Dr. Charles Coutant

Dr. Coutant is a scientist with a Ph. D. in Biology who has conducted thermal effects and other cooling water studies since 1959. Dr. Coutant participated in the preparation of the NRC's rules implementing NEPA and has participated in the NEPA EIS preparation process since 1971, in which issues related to impacts of construction (e.g., dredging) and operation (e.g., thermal, entrainment and impingement) were analyzed. *See* SNC's Testimony of Dr. Charles Coutant Regarding EC 6.0 ("Coutant 6.0 Testimony"); Exhibit SNC000051 ("Analysis of Impacts of Navigation Channel Maintenance for Barge Delivery of Materials for Construction of Vogtle Units 3 and 4 on the Ecology of the Savannah River." Charles C. Coutant, Ph.D. (January 2, 2009)).

E. Mr. Tom Moorer

Tom Moorer is employed by SNC as the Project Manager for Environmental Support. He has over 30 years of experience in the environmental field, including 18+ years of experience in environmental engineering, licensing, and regulatory compliance in nuclear power. He was responsible for developing the ER filed by SNC as part of its ESP application for Vogtle Units 3 and 4 and all supporting activities. *See* SNC's Testimony of Mr. Tom Moorer Regarding EC 6.0

("Moorer 6.0 Testimony"). Mr. Moorer will testify regarding his understanding of the transportation of components to the Vogtle site and possible need to dredge/maintain the Savannah River navigation channel and Corps' operations.

The testimony and opinions of and evidence provided by these witnesses are based on technical expertise and experience, personal knowledge of the issues raised in EC 6.0, and familiarity with the Vogtle site and the Savannah River.

IV. SNC'S STATEMENT OF POSITION

As demonstrated by SNC's witnesses, the analysis contained and conclusions reached in the FEIS are adequate, reasonable and more than satisfy the NRC Staff's NEPA responsibilities. The FEIS clearly evidences that the Staff took the required "hard look" at the relevant environmental consequences of issuance of an ESP, including the cumulative impact of the Corps' potential dredging. This is true for three reasons as discussed more fully below. First, due to the speculative nature of the Corps' potential future dredging efforts, the Staff was not required to analyze the cumulative impacts of issuance of the ESP and the Corps' dredging at all. Conservatively, however, the Staff did include as much analysis as was possible in an effort to disclose the matter. It would not be appropriate to penalize the NRC Staff for taking this conservative, open approach by finding fault with the decision to disclose the possibility of future dredging in the EIS, even though they had no obligation to do so.

Alternatively, if the Board finds that future Corps dredging activities were "reasonably foreseeable," under NEPA, the FEIS's discussion of cumulative impacts of dredging satisfies the requirements of NEPA. Specifically, because the precise impacts of dredging cannot be determined by the NRC Staff and are not essential to the ESP permitting decision, the FEIS

statements regarding the dredging impacts conform with the guidance offered by CEQ rules. *See* 10 C.F.R. § 1502.22.

Finally, even if the Board determines that the FEIS should have contained additional information, or that the Staff is now better able to analyze the impacts of dredging, the Board may consider the record as a whole. As the Board properly noted in its Order admitting 6.0, the Board may "assess Joint Intervenors' concerns regarding the adequacy of the staff's analysis of the impacts of dredging and, as appropriate, supplement the FEIS based on the record garnered through the adjudicatory process." October 24, 2008 Memorandum and Order (Ruling on Motion to Admit New Contention) at 17. Thus, the Board may consider the full record before it, including the testimony and evidence submitted by SNC, which confirms that the foreseeable dredging impacts would be SMALL, to conclude that "the aggregate is sufficient to satisfy the agency's obligation under NEPA . . . ." to take a "hard look" at the environmental consequences of issuing an ESP. *In re La. Energy Servs.*, 63 N.R.C. at 286.

A review of the entire record demonstrates that the NRC Staff's EIS satisfies its NEPA obligations in all measures, including with respect to impacts from the Corps' dredging the Savannah River Federal navigation channel. Joint Intervenors' EC 6.0 cannot be sustained.

A. Cumulative Impacts Analysis is Adequate

As admitted, EC 6.0 is a cumulative impacts contention. Joint Intervenors offered eight "items of foundational support" for EC 6.0, enumerated by the Board as Items 1 through 8. *See* Joint Intervenors' Motion at 2-10; *see also* October 24, 2008 Memorandum and Order (Ruling on Motion to Admit New Contention) at 16. However, the Board admitted the contention as supported by only three of these items – each as they relate to the FEIS cumulative impacts

analysis:[2] Items 4 and 5, "which address the adequacy of the cumulative impacts analysis," and Item 7, which "raises the issue of [the Corps'] regulation of water flow from upstream reservoirs." *See* October 24, 2008 Memorandum and Order (Ruling on Motion to Admit New Contention) at 16. With respect to Item 7, the Board clarified that "an analysis of the cumulative impacts of dredging to permit navigation to the VEGP site likely will need to include an analysis of the relationship between [Corps] flow regulation and the need for dredging." *Id.* at 16-17.

1. No change in Corps flow regulation is required or anticipated to support navigation.

As an initial matter, barging of components to the VEGP construction site will not require releases of "significant amounts of water from upstream reservoirs," as alleged by Joint Intervenors. *See* Moorer 6.0 Testimony at 7-8. Because no such special releases are anticipated for the project, the Staff was not required to analyze their "impacts." *See, e.g., City of Oxford, GA v. Fed'l Aviation Admin.*, 428 F. 3d 1346, 1353-54 (11th Cir. 2005). As the FEIS discusses, the flow passing the Vogtle site is already highly regulated by the Corps' upstream reservoir releases. *See* FEIS at 2-19. The Corps currently operates these reservoirs in accordance with the Drought Contingency Plan rule curves. *See id; also* Exhibit SNC000048 ("J. Strom Thurmond Dam and Lake Water Control Plan and Guide Curves"). Accordingly, the current flow regime and the releases already engaged in by the Corps for various purposes already form part of the baseline for the analysis in the EIS. *See* FEIS at 2-17 to 2-20.

As support for EC 6.0, Joint Intervenors assume that transportation of components by barge to the site will, in addition to dredging, "require release of significant amounts of water from upstream reservoirs, which is not addressed in the FEIS." Joint Intervenors' Motion at 8. However, there is currently no plan for the Corps to alter its current reservoir operations. Moorer

[2] The remaining 5 bases are addressed briefly in section B, infra.

6.0 Testimony at 7. Rather, transportation of components to the Vogtle site will take place when reservoir releases specified in existing water control and drought management plans are made, with no special release of water from upstream reservoirs. Neubert/Smith/Scott 6.0 Testimony at 10; Moorer 6.0 Testimony at 7-8. Thus, the Corps will not release "significant amounts of water" from its upstream reservoirs in order to facilitate navigation by barge. SNC's witnesses are not aware of any "evidence" that additional reservoir releases will be necessary, and such unsubstaniated actions cannot be a subject of the Staff's cumulative impacts analysis.

2. The Staff's cumulative impacts analysis is more than adequate as it relates to Items 4 and 5 because NEPA does not require consideration of impacts that are not reasonably foreseeable.

As the United States Supreme Court has ruled, the requirement to include a cumulative impacts analysis does not enlarge the scope of analysis. *See U.S. Dept. of Transp. v. Public Citizen*, 541 U.S. 752, 769-70 (2004). The Staff is only required to consider the environmental impacts of future actions that are reasonably foreseeable, not speculative and indefinite. *See City of Oxford*, 428 F. 3d at 1353-54 (holding that the agency was not required under NEPA to consider possible cumulative impact of actions that were speculative, including highway widening for which no plan had been established). The NRC must "make an informed judgment, and [] estimate future impacts . . . if trends are ascertainable," but it is "not required to engage in speculation or contemplation about [] future plans." *Forty Most Asked Questions Concerning CEQ's [NEPA] Regulations*, CEQ, 46 Fed. Reg. 18,026, 18,031 (Mar. 23, 1981). The Staff is also not required to include an analysis of impacts that are too remote or speculative. *See Vt. Yankee Nuclear Power Corp. v. Natural Res. Def. Council, Inc.*, 435 U.S. 519, 551 (1978), *citing Natural Res. Defense Council v. Morton*, 458 F.2d 827, 837-838 (D. D.C. 1972) (concluding that

NEPA does not require a detailed discussion of alternatives when the effects of such cannot be readily ascertained and the alternatives are "deemed only remote and speculative possibilities.").

For the purpose of deciding admissibility, the Board concludes that because the Staff included any discussion of dredging in the FEIS cumulative impacts analysis section, the dredging and any associated impacts are at least reasonably foreseeable. October 24, 2008 Memorandum and Order at 16. However, in the context of NEPA, reasonable foreseeability "does not include 'highly speculative harms.'" *City of Shoreacres v. Waterworth*, 420 F.3d 440, 453 (5th Cir. 2005). Just because the possibility of dredging can be imagined, or is desired by the Applicant, does not mean that such an activity is more than speculative. The NRC must "make an informed judgment, and [] estimate future impacts . . . if trends are ascertainable," but it is "not required to engage in speculation or contemplation about [] future plans." *Forty Most Asked Questions Concerning CEQ's NEPA Regulations*, 46 Fed. Reg. at 18,031.

As the Eleventh Circuit has recognized, "[t]he inquiry into whether a future action is foreseeable should be conducted with an eye toward the purposes underlying NEPA." *City of Oxford,* 428 F.3d at 1353. Importantly, "[a]n agency must consider the cumulative impacts of future actions only if doing so would further the informational purposes of NEPA. Restricting cumulative impact analysis to foreseeable future actions ensures that the details of these actions are sufficiently concrete for the agency to gather information useful to itself and the public." *Id.* at 1353-54. In *City of Oxford*, the Court considered a petitioner's claim that the FAA should have analyzed the cumulative impacts of approving revisions to an airport runway plan and the relocation of a road. *Id.* at 1354. However, the Court found that "[t]he FAA would have no basis upon which to asses the environmental impacts of such a project, other than pure speculation," and upheld the agency's cumulative impacts analysis without it. *Id.*

It is plain that the possibility of Corps dredging is just that – a possibility. The Corps has not yet been formally requested to perform any dredging and has no funding with which to conduct dredging in any event. *See* Moorer 6.0 Testimony at 7; Exhibit SNC000049 (December 15, 2008 Email from Matt Montz to Tom Moorer). Without any defined plan from the Corps, any assessment the Staff could have made of the impacts of the Corps' dredging project would necessarily be speculative. Thus, even though the generic concept of future dredging was imaginable to the Staff at the time the FEIS was published, the lack of any concrete information necessary to further the purposes of NEPA renders the project speculative for purposes of the cumulative impacts standard.

3. Even assuming the Staff was required to consider the cumulative impacts of dredging in its FEIS, its analysis was appropriate given the incomplete nature of the information regarding dredging.

Even assuming the Corps' dredging project is "reasonably foreseeable" within the context of NEPA, the extent of the associated impacts are not reasonably foreseeable. "[W]hen the *nature* of the effect is reasonably foreseeable, but its *extent* is not . . . [t]he CEQ has devised a specific procedure for 'evaluating reasonably foreseeable significant adverse effects on the human environment' when 'there is incomplete or unavailable information.'" *Mid States Coal. for Progress v. Surface Transp. Bd.*, 345 F.3d 520, 549-550 (8th Cir. 2004). Section 1502.22 of the CEQ regulations states that:

> When an agency is evaluating reasonably foreseeable significant adverse effects on the human environment in an environmental impact statement and there is incomplete or unavailable information, the agency shall always make clear that such information is lacking.

40 C.F.R. § 1502.22.

Unavailable information is that "which cannot be obtained because the means to obtain it are not known." 51 Fed. Reg. at 15,621. The agency should state that the information is

incomplete or unavailable, state the relevance of the missing information, summarize the existing credible scientific evidence which is relevant to evaluating the reasonably foreseeable significant adverse impacts and evaluate such impacts based on theoretical approaches or scientific methods generally accepted in the scientific community. 40 C.F.R. § 1502.22(b).[3] An agency's analysis made "in the face of unavailable information" is "grounded in the 'rule of reason.'" 51 Fed. Reg. at 15,621; *see also Scientists' Inst. for Public Info., Inc., v. Atomic Energy Comm'n*, 481 F.2d 1079, 1092 (D.C. Cir. 1973) ("The statute must be construed in the light of reason if it is not to demand what is, fairly speaking, not meaningfully possible . . . .").

"Situations often arise when information that would be considered important for the preparation of an environmental impact statement is unavailable. If [NEPA] barred agency action until this information became available, it is unlikely that any project requiring an environmental impact statement would ever be completed." *Village of False Pass v. Watt*, 565 F. Supp. 1123, 1149 (D. Alaska 1983); *Jicarilla Apache Tribe of Indians v. Morton*, 471 F.2d 1275, 1280 n.11 (9th Cir.1973). "[T]he unavailability of information should not be permitted to halt all government action." *Village of False Pass*, 565 F. Supp. at 1144. As the Fifth Circuit has recognized, "[t]his is particularly true when information may become available at a later time and can still be used to influence [agency] decision." *Sierra Club v. Sigler*, 695 F.2d 957, 970 (5th Cir.1983). In this case, any future Corps dredging or maintenance of the navigation channel would be subject to the Corps' own NEPA obligations.

Moreover, for information subject to 40 C.F.R. § 1502.22, an agency's obligation only applies when the information is "essential to a reasoned choice among alternatives." Because the

[3] Although the NRC is not bound by the CEQ rule, because the NRC has no rule on unavailable information, the CEQ rule serves as guidance and supports the overarching "rule of reason." *See In re La. Energy Servs.*, 61 N.R.C. at 403. In this case, NRC's commonsense effort to identify dredging was proper and should be encouraged.

ESP does not authorize dredging, unavailable information relating to the Corps' potential action cannot be regarded as essential to the Board's permitting decision. Importantly, the purpose of NEPA is to "ensure[] that important effects will not be overlooked or underestimated." *In re Hydro Resources, Inc.* (P.O. Box 15910, Rio Rancho, New Mexico 87174), 53 N.R.C. 31, 44 (2001), *citing Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989) (emphasis added). The Staff disclosed all that was known to it at the time the FEIS was published and concluded that impacts could be MODERATE. This disclosure more than satisfies the Staff's obligations under NEPA.

4. If needed, the Board may supplement the FEIS based on the record in this Hearing.

As this Board stated in its October 24, 2008 Memorandum and Order, it may, as necessary and appropriate, "supplement the FEIS based on the record garnered through the adjudicatory process." (Ruling on Motion to Admit New Contention) at 17. At the time the FEIS was published, the Staff's analysis was proper and adequate. Due to the speculative nature of the Corps' potential action, the Staff was either not required to address the cumulative impacts of dredging in its FEIS at all, or, at most, only required to make clear that specific information about future Corps dredging plans was lacking.

Regardless, since the admission of EC 6.0, additional information regarding the Corps' potential dredging has been developed and confirms that the impacts from dredging should be SMALL. SNC witness Mr. Neubert, an employee of Westinghouse Electric Company, describes the optimal method of delivery for the components to the Units 3 and 4 construction site. He states that "[t]he most efficient, cost-effective, and environmentally benign method of delivery of heavy components to the construction site is to deliver them by barge." Neubert/Smith/Scott 6.0 Testimony at 4. He explains that alternate delivery methods are available, but that barging

would be ideal, if the navigation channel is available. Importantly, Messrs. Neubert, Stevens and Scott testify that the necessary barge shipments could take place without the full nine feet of navigation channel depth authorized by the Rivers and Harbors Act. According to their testimony, only approximately five feet of depth, at the 3700 cfs flow currently authorized by the Corps Drought Management plan, would be needed. *See* Neubert/Smith/Scott 6.0 Testimony at 7.

Accordingly, in order to determine the possible extent of dredging and snag removal needs, if components are to be barged to the VEGP site, Captain David Scott of Southeastern Marine was commissioned to survey the Savannah River. Captain Scott conducted a survey of the navigation channel, utilizing sonar at 1/10 to 1/5 per mile intervals along the entire navigation channel. Mr. Smith and Mr. Neubert, utilizing Captain Scott's survey, identified eight locations between the Savannah Harbor and the Plant Vogtle where dredging would be required, concluding that "roughly 36,000 cubic yards of dredged material would need to be removed from the entire 110 mile stretch of river." Neubert/Smith/Scott 6.0 Testimony at 5. This estimate is orders of magnitude less than the estimates made by Joint Intervenors' witness, Dr. Hayes, and had the advantage of resulting from an actual sonar survey of the channel. Messrs. Smith and Neubert also identified a total of 277 trees (in 180 locations) that would need to be removed. *Id*. These snags would likely be replaced in the river outside the navigation channel to maintain aquatic habitat. *See* Moorer 6.0 Testimony at 6. As SNC Witness Tom Moorer explains, spoils would likely be deposited outside the river bed in an existing upland spoil disposal facility operated by the Corps. *Id*. at 4-6.

Dr. Coutant has analyzed the potential impacts of dredging and associated snag removal on the order contemplated in the Southeastern Marine River Survey, and he concludes that the

impacts will be small and temporary. Exhibit SNC000051 at 11-12 (Report on Dredging Impacts); Coutant 6.0 Testimony at 7. The report explains that "[o]verall, the impacts of dredging and snag removal operations on the scale suggested in the survey are expected to be localized and not biologically significant . . . ." *Id*. at 12. In fact, according to Dr. Coutant's report, the Staff's conclusion in the FEIS that impacts could be moderate is conservative. *Id*. (explaining the impacts "should be considered small on the scale of impacts used by the NRC.").

Joint Intervenors grant that "[i]f the project required minimal or no dredging, then there would be little concern over the potential impacts of dredging. . . ." Joint Intervenors' Reply to NRC Staff's Answer to Joint Intervenors' Motion to Admit New Contention and [SNC's] Answer to Joint Intervenors' Motion to Admit New Contention, October 14, 2008, at 15 ("Joint Intervenors' Reply"). SNC's witnesses demonstrate that the dredging required to support navigation of barge traffic is, in fact, minimal. Moreover, expert testimony concludes that any impacts from dredging on this scale will be small. If necessary, the Board may supplement the FEIS to reflect this testimony and evidence.

B. Other Items Provide No Foundational Support for EC 6.0

According to the Board, the other Items offered as foundational support for EC 6.0 did not "fare so well." October 24, 2008 Memorandum and Order at 17. Because Item 1 was determined to be essentially a timeliness argument, the Board found that it did not provide foundational support for EC 6.0. *Id.* Items 6 and 8, which alleged that the NRC "fail[ed] to carry out its NEPA procedural duties," were "effectively mooted" by the Board's decision to admit EC 6.0. *Id.* Finally, the Board ruled that because Items 2 and 3 depended on the connectedness of NRC's issuance of an ESP and the Corps' decision to dredge the Savannah River, they were unnecessary to the Board's admissibility determination. *Id.*

The Board rightly viewed with skepticism Joint Intervenors' claim that issuance of an ESP and the Corps' dredging are connected actions. NRC's decision to issue an ESP and the Corps' decision to dredge the Savannah River are not connected actions. These actions do not together meet any one of the three requirements set out in the CEQ's regulations for connected actions. *See* 40 C.F.R. § 1508.25(a)(1). First, neither action "automatically triggers" the other. *Id.* (a)(1)(i). The NRC and the Corps have independent authority for their respective actions. Clearly, issuing an ESP does not trigger the Corps' responsibility to dredge. Similarly, by dredging, the Corps does not automatically trigger issuance of an ESP.

Second, both actions could proceed without the other. *Id.* (a)(1)(ii). Joint Intervenors assert that these actions are connected because, they believe, construction of Units 3 and 4 cannot proceed until the Federal navigation channel is expanded. Joint Intervenors' Motion at 5. Joint Intervenors provide no support for this assertion. Rather, as explained by SNC's witnesses, while barging of the components for Units 3 and 4 may be the preferred method of transportation, the plant could still be built absent the Corps' dredging. Neubert/Smith/Scott 6.0 Testimony at 5. Joint Intervenors acknowledge this in their Reply: "constructing Units 3 and 4 without barging components to the VEGP site may be possible . . . ." Joint Intervenors' Reply at 8. Because the issuance of the ESP is not dependent upon the Corps' maintenance of its navigation channel, the two actions are not "connected" under NEPA. *See* NRC Staff Answer to Joint Intervenors' Motion to Admit New Contention, October 6, 2008, at 7 ("Nor has NRC designated the Corps' implementation of such dredging as a term or condition of the ESP.").

It is notable that the Corps has an independent responsibility to maintain the Federal navigation channel, authorized by the Rivers and Harbors Act of 1950. See Pub. L. No. 81-516, § 1011, 64 Stat. 163 (1950). The Corps has already completed an EIS assessing the impact of

dredging, *see* Exhibit SNC000047 (U.S. Army Corps of Engineers [FEIS] for the Savannah River (September 1976)), and will be subject to NEPA obligations in connection with any possible future maintenance. The Corps will have to satisfy its own, independent NEPA obligations if and when it determines additional dredging is appropriate and feasible. The NRC has no duty under NEPA to consider the environmental impacts of a not-yet-proposed, other-agency action, when it has no control over that agency's action and, importantly, no ability to prevent the other action's environmental effects. *See Quechan Indian Tribe of the Fort Yuma Indian Reservation v. U.S. Dep't of the Interior*, 547 F. Supp. 2d 1033, 1043 (D. Ariz. 2008). NRC's decision to issue an ESP does not authorize the Corps to dredge the Savannah River.

Finally, both actions are not together "interdependent parts of a larger action" and therefore do not depend on the "larger action" for justification. *See* 40 C.F.R. § 1508.25 (a)(1)(iii). Joint Intervenors' reliance on *Save the Yaak Comm. v. Block*, 840 F.2d 714 (9th Cir. 1988) and *Thomas v. Peterson*, 753 F.2d 754 (9th Cir. 1985) for the proposition that the issuance of an ESP and the Corps' dredging are connected actions is misplaced. *See* Joint Intervenors' Motion at 4. These cases involved construction of a logging road and the resultant sale of timber. In *Thomas,* the court found that "the timber sales cannot proceed without the road, and the road would not be built but for the contemplated timber sales." 753 F. 2d at 758 (emphasis added). In contrast, the issuance of the ESP (and, ultimately construction of Units 3 and 4) can proceed without the Corps' dredging, "although each would benefit from the other's presence." *Sylvester v. U.S. Army Corps of Eng'rs*, 884 F.2d 394, 400 (9th Cir. 1989). "Put simply, projects that have independent utility are not connected actions . . . ." *Citizens Comm. to Save our Canyons v. United States Forest Serv.*, 297 F.3d 1012, 1029 (10th Cir. 2002); *see also Wetlands Action Network v. U.S. Army Corps of Eng'rs,* 222 F.3d 1105 (9th Cir. 2000). Joint Intervenors

have done nothing more than assert, with no supporting evidence, that the ESP cannot be issued without the Corps' dredging. SNC's witness testimony demonstrates that while the construction of Units 3 and 4 would benefit from the Corps' dredging of the Savannah River, these actions are not connected.

V. Conclusion

For the reasons set forth in this Position Statement and supported by the testimony and evidence filed concurrently herewith, Joint Intervenors' EC 6.0 should not be sustained. SNC respectfully requests the Board rule that 1) the Staff's cumulative impacts analysis was adequate and appropriate, given the uncertainty of the Corps' project; and 2) the Staff was not required to address in its cumulative impacts analysis the impacts of the Corps' upstream reservoir operations, as there is no plan or suggestion for the Corps to alter its current operating procedures regarding releases to support navigation in any way. Finally, to the extent it is necessary, SNC requests the Board rule that the NRC's issuance of an ESP and the Corps' dredging of the Savannah River Federal navigation channel are not "connected actions."

In the alternative, if the Board finds that information beyond that presented in the FEIS is necessary to estimate impacts, the evidence presented by SNC in this Position Statement provides a more than adequate basis for the Board's supplementation of the EIS. In any event, EC 6.0 should be resolved in favor of SNC.

Respectfully submitted,

(Original signed by M. Stanford Blanton)

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Dated this 9th day of January, 2009.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	**Docket No. 52-011-ESP**
Southern Nuclear Operating Company	)	**ASLBP No. 07-850-01-ESP-BD01**
(Early Site Permit for Vogtle ESP Site)	)	**January 9, 2009**

CERTIFICATE OF SERVICE

I hereby certify that copies of SOUTHERN NUCLEAR OPERATING COMPANY'S INITIAL STATEMENT OF POSITION ON INTERVENORS' ENVIRONMENTAL CONTENTION 6.0 (IMPACTS ASSOCIATED WITH DREDGING THE SAVANNAH RIVER FEDERAL NAVIGATION CHANNEL) in the above captioned proceeding have been served by electronic mail as shown below, this 9th day of January, 2009, and/or by e-submittal.

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* And upon any other persons designated on the official service list compiled by the Nuclear Regulatory Commission in this proceeding.

(Original signed by M. Stanford Blanton)

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