

January 10, 2007

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 ANSWER TO PETITION FOR INTERVENTION OF
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

Pursuant to 10 C.F.R. § 2.309(h)(1) and the Atomic Safety and Licensing Board's ("Licensing Board") Initial Prehearing Order dated December 18, 2006,¹ the staff of the Nuclear Regulatory Commission ("Staff") hereby files its answer to the Petition for Intervention ("Petition") of Center for a Sustainable Coast, Savannah Riverkeeper, Southern Alliance for Clean Energy ("SACE"), Atlanta Women's Action for New Directions ("WAND"), and Blue Ridge Environmental Defense League ("BREDL") (collectively, "Petitioners"), filed December 11, 2006. The Staff herein addresses the standing of each of the Petitioners, as well as the admissibility of Petitioners' proposed contentions. For the reasons set forth below, the Staff does not challenge the standing of any of the five Petitioners.

Further, the Staff opposes admission of Petitioners' proposed contentions, with the exception of a portion of Proposed Contention EC 1.1, and Proposed Contention EC 1.2. The Staff does not oppose admission of Proposed Contention 1.1 as it relates to the Environmental Report's ("ER") discussion of baseline aquatic ecology conditions in the Savannah River. The Staff does not oppose admission of Proposed Contention EC 1.2 as it relates to the following

¹ *Southern Nuclear Operating Co. (Early Site Permit for Vogtle ESP Site), Memorandum and Order (Initial Prehearing Order), slip op. Dec. 18, 2006.*

specific issues in the area of thermal impacts: the putative absence of scientific studies or field observations to support the conclusions regarding thermal impacts; the asserted lack of data on actual thermal plume size since commencement of operation at the existing units; the ER's purportedly insufficient discussion of only fish species and life history stages that provide support to its conclusion that additional units will not affect fish species; and the ER's purportedly insufficient cumulative impact assessment based on lack of field monitoring data. In addition, the Staff does not oppose admission of Proposed Contention EC 1.2 as it relates to the ER's purportedly incomplete discussion of the impacts of liquid chemical effluent discharges to the Savannah River.

BACKGROUND

On August 15, 2006, Southern Nuclear Operating Company ("SNC" or "Applicant") submitted an application pursuant to Section 103 of the Atomic Energy Act of 1954, as amended ("AEA"), and 10 C.F.R. Part 52, Subpart A, in which it requested an Early Site Permit ("ESP") for a site within the existing Vogtle Electric Generating Plant ("Vogtle") site near Waynesboro, Georgia.² A Notice of Hearing initiating the proceeding on the application and offering an opportunity to petition for leave to intervene was published in the *Federal Register* on October 12, 2006.³ The Notice of Hearing defined the issues in the proceeding as follows:

Issues Pursuant to the Atomic Energy Act of 1954, as Amended

(1) Whether the issuance of an ESP will be inimical to the common defense and security or to the health and safety of the public (Safety Issue 1); and (2) whether, taking into consideration the site criteria contained in 10 CFR part 100, a reactor,

² See Letter from Joseph A. (Buzz) Miller, SNC, to NRC Document Control Desk, "Vogtle Electric Generating Plant Early Site Permit Application," dated August 14, 2006 (Agencywide Documents Access and Management System ("ADAMS") Accession Number ML062290246).

³ See Southern Nuclear Operating Company; Notice of Hearing and Opportunity to Petition for Leave to Intervene on an Early Site Permit for the Vogtle ESP Site, 71 Fed. Reg. 60,195 (Oct. 12, 2006).

or reactors, having the characteristics that fall within the parameters for the site, can be constructed and operated without undue risk to the health and safety of the public (Safety Issue 2).

Issue Pursuant to the National Environmental Policy Act (NEPA) of 1969, as Amended

Whether, in accordance with the requirements of subpart A of 10 CFR part 51, the ESP should be issued as proposed.

71 Fed. Reg. at 60,195. In response to the Notice of Hearing, Petitioners filed their joint Petition for leave to intervene in the proceeding on December 11, 2006. Pursuant to the Initial Hearing Order, Petitioners filed a supplement to their petition on December 27, 2006, assigning a separate alphanumeric designation for each of the proposed contentions raised in the Petition.⁴

DISCUSSION

I. PETITIONERS' STANDING

A. Legal Requirements for Standing

Under AEA Section 189a.(1)(A), "the Commission shall grant a hearing upon the request of any person whose interest may be affected by [a proceeding to grant, suspend, revoke, or amend any license or construction permit] and shall admit any such person as a party to such proceeding." In order to meet the requirements of the AEA, a petitioner must demonstrate that he or she has standing to intervene.

⁴ See "JNT Supplement to Petition for Intervention," dated December 27, 2006.

The Commission's regulations in 10 C.F.R. § 2.309(d)(1)⁵ provide that in order to establish standing a petition to intervene must state:

- (i) The name, address and telephone number of the requestor or petitioner;
- (ii) The nature of the petitioner's right under the Act to be made a party to the proceeding;
- (iii) The nature and extent of the petitioner's property, financial or other interest in the proceeding; and
- (iv) The possible effect of any decision or order that may be issued in the proceeding on the petitioner's interest.

Additionally, NRC case law requires a petitioner to demonstrate that:

- (1) The petitioner has personally suffered a distinct and palpable harm that constitutes injury-in-fact;
- (2) The injury fairly can be traced to the challenged action; and
- (3) The injury is likely to be redressed by a favorable decision.

See, e.g., Kelley v. Selin, 42 F.3d 1501, 1507 (6th Cir. 1995), citing *Michigan v. U.S.*, 994 F.2d 1197, 1203 (6th Cir. 1993); *Public Serv. Co. of New Hampshire* (Seabrook Station, Unit 1,), CLI-91-14, 34 NRC 261, 266-68 (1991); *Sequoyah Fuels Corp. & General Atomics* (Gore, Oklahoma Site), CLI-94-12, 40 NRC 64, 71-72 (1994); *Yankee Atomic Elec. Co.* (Yankee Nuclear Power Station), CLI-94-3, 39 NRC 95 (1994); *Georgia Inst. of Tech.* (Georgia Tech Research Reactor), CLI-95-12, 42 NRC 111, 115 (1995).

To establish standing, there must be an "injury in fact" that is either actual or threatened.

⁵ Although the Commission revised its Rules of Practice in 10 C.F.R. Part 2 in 2004, § 2.309 incorporates "the basic standing and 'one good contention' requirements of [old] § 2.714 and applies those requirements to all NRC adjudicatory proceedings. . . . [T]he Commission expects its boards and presiding officers to look to the ample NRC case law on standing to interpret and apply this standard. The Commission intends the term, 'among other things,' in paragraph (d)(3) to mean that it will consider the totality of information made known to it—not just information submitted in the request for hearing/petition to intervene—in determining whether standing exists." Final Rule, Changes to Adjudicatory Process, 69 Fed. Reg. 2182, 2221 (Jan. 14, 2004).

Yankee Atomic Elec. Co. (Yankee Nuclear Power Station), CLI-98-21, 48 NRC 185, 195 (1998) (citing *Wilderness Soc’y v. Griles*, 824 F.2d 4, 11 (D.C. Cir. 1987)). The injury must be “concrete and particularized,” not “conjectural” or “hypothetical.” *Sequoyah Fuels*, CLI-94-12, 40 NRC at 75. As a result, standing will be denied when the threat of injury is too speculative. *Id.* Furthermore, the alleged “injury in fact” must lie within the “zone of interests” protected by the statutes governing the proceeding, either the AEA or NEPA. *Quivira Mining Co.* (Ambrosia Lake Facility, Grants, New Mexico), CLI-98-11, 48 NRC 1, 6 (1998), *aff’d sub nom. Envirocare of Utah, Inc. v. NRC*, 194 F.3d 72 (D.C. Cir. 1999).

Furthermore, a petitioner must also establish a causal nexus between the alleged injury and the challenged action. *Commonwealth Edison Co.* (Zion Nuclear Power Station, Units 1 & 2), LBP-98-27, 48 NRC 271, 276 (1998), *aff’d*, CLI-99-4, 49 NRC 185 (1999). A determination that the injury is fairly traceable to the challenged action, however, does not depend “on whether the cause of the injury flows directly from the challenged action, but whether the chain of causation is plausible.” *Sequoyah Fuels*, CLI-94-12, 40 NRC at 75. Finally, the redressability element of standing requires a petitioner to show that his or her claimed actual or threatened injury could be cured by some action of the decisionmaker. *Sequoyah Fuels Corp.* (Gore, Oklahoma Site Decommissioning), CLI-01-02, 53 NRC 9, 14 (2001).

An organization may establish standing by demonstrating an injury in fact to: (1) its interests as an organization or (2) the interests of any of its members. *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-98-13, 48 NRC 26 (1998); *Yankee Rowe*, CLI-98-21, 48 NRC at 185; *Consumers Power Co.* (Palisades Nuclear Plant), LBP-79-20, 10 NRC 108, 112-13 (1979). Additionally, the organization must show that the injury falls within the zone of interests of the AEA or NEPA. *Tennessee Valley Auth.* (Watts Bar Nuclear Plant, Units 1 & 2), ALAB-413, 5 NRC 1418, 1421 (1977).

In order to show that its individual members have standing, a petitioning organization must allege: (1) a particularized injury, (2) that is fairly traceable to the challenged action and (3) is likely to be redressed by a favorable decision. *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-99-10, 49 NRC 318, 323 (1999). In addition to identifying a member by name and address who will be injured and describing the member's injury, an organization must also provide an authorization from that member for the organization to represent that individual in the proceeding. *Sequoyah Fuels*, CLI-94-12, 40 NRC at 72; *Georgia Power Co.* (Vogtle Electric Generating Plant, Units 1 & 2), LBP-90-29, 32 NRC 89, 92 (1990); *Commonwealth Edison Co.* (Dresden Nuclear Power Station, Unit 1), LBP-82-52, 16 NRC 183, 185 (1982), citing *Houston Lighting & Power Co.* (Allens Creek Nuclear Generating Station, Unit 1), ALAB-535, 9 NRC 377 (1979); see generally *Commonwealth Edison Co.* (Dresden Nuclear Power Station, Unit 1), CLI-81-25, 14 NRC 616 (1981) (Guidelines for Board).

An organization intervening in a construction permit, operating license, or significant license amendment proceeding may also establish representational standing by raising safety issues on behalf of a member or members who reside in close proximity to a plant. *Northeast Nuclear Energy Co.* (Millstone Nuclear Power Station, Unit 3), LBP-98-20, 48 NRC 87, 93-94 (1998); *Vermont Yankee Nuclear Power Corp.* (Vermont Yankee Nuclear Power Station), LBP-87-7, 25 NRC 116, 118 (1987); *Palisades*, LBP-79-20, 10 NRC at 115. Close proximity has generally been accepted as existing when an individual resides within 50 miles of a nuclear plant. *Virginia Elec. & Power Co.* (North Anna Nuclear Power Station, Units 1 & 2), ALAB-522, 9 NRC 54, 56 (1979); *Duquesne Light Co.* (Beaver Valley Power Station, Unit 2), LBP-84-6, 19 NRC 393, 410, 429 (1984), citing *South Texas, supra*, 9 NRC at 443-44; *Detroit Edison Co.* (Enrico Fermi Atomic Power Plant, Unit 2), LBP-79-1, 9 NRC 73, 78 (1979); *Tennessee Valley Auth.*, ALAB-413, 5 NRC at 1421 n.4. An organization basing its standing on the proximity of its

member(s) must provide a description of the members' property or residence and the proximity of the property to the facility. *Northern States Power Co.* (Pathfinder Atomic Plant), LBP-89-30, 30 NRC 311, 315 (1989).

Historically, standing based on proximity has been granted based on a presumption that a petitioner's close proximity to the facility at issue is sufficient, without more, to establish the requisite injury-in-fact. *North Anna*, ALAB-522, 9 NRC at 56. As the "proximity presumption" developed, it has been applied in a range of reactor licensing proceedings in which petitioners have lived various distances from the plant site at issue. See, e.g., *Northern States Power Co.* (Prairie Island Nuclear Generating Station, Units 1 & 2), ALAB-107, 6 AEC 188, 190 (1973) (30-40 miles from the site); *Tennessee Valley Auth.*, ALAB-413, 5 NRC at 1421 n.4 (50 miles from the site, standing denied on other grounds). The proximity presumption applies in the instant proceeding, in light of the Commission's determination that an ESP is a partial construction permit.⁶

B. Petitioners' Standing to Intervene

Petitioners maintain that they have established representational standing to intervene in this proceeding by demonstrating that several members of their respective organizations have standing to intervene based on the proximity principle. All five organizations (although not all affiants) have asserted that at least one of their members resides within 50 miles of the Vogtle ESP site.⁷ As discussed above, in order to obtain representational standing, an organization must demonstrate, *inter alia*, that its members would otherwise have standing to participate in their own right and that at least one of its members has authorized it to represent the member's

⁶ See 10 C.F.R. § 52.21 ("An early site permit is a partial construction permit and is therefore subject to all procedural requirements in 10 CFR part 2 which are applicable to construction permits . . .").

⁷ The distance from the Vogtle ESP Site to the residence of each of the individuals listed below, as verified by the NRC Staff, is provided in Attachment A: NRC Staff Verification of the Zone of Proximity.

interests. As set forth below, all five organizations satisfy the representational standing requirement for at least one of their members.

1. Southern Alliance for Clean Energy (“SACE”)

SACE has claimed representational standing based on the interests of three members: Susan Bloomfield, David J. Matos, and William Mareska. These individuals provided affidavits in support of SACE’s standing in which they assert that they reside in close proximity – within 50 miles – of the Vogtle ESP site and that nuclear facilities in close proximity to their homes “could pose a grave risk to [their] health and safety.” Affidavits of Susan Bloomfield, David J. Matos, and William Mareska ¶¶ 2 – 3. The affiants have provided approximate distances from the Vogtle ESP site to their residences and the NRC Staff has verified the accuracy of these distances. Based on the above, the NRC staff does not challenge the standing of any of these three individuals to intervene in his or her own right. In addition, these individuals have authorized SACE to represent their interests in the instant proceeding. *Id.* Thus, the NRC staff does not object to SACE’s standing to intervene.⁸

2. Savannah Riverkeeper

Savannah Riverkeeper has claimed representational standing based on the interests of three members: William Mareska, Frank Carl, and Mike Stacy. These individuals provided affidavits in support of Savannah Riverkeeper’s standing in which they assert that they reside in close proximity – within 50 miles – of the Vogtle ESP site and that nuclear facilities in close proximity to their homes “could pose a grave risk to [their] health and safety.” Affidavits of William Mareska, Frank Carl, and Mike Stacy ¶¶ 2 – 3. The affiants have provided approximate

⁸ Mr. Mareska has submitted one affidavit authorizing both SACE and Savannah Riverkeeper to represent his interests in this proceeding. Although the Staff does not object to Mr. Mareska’s standing in his own right, the Staff is of the view that Mr. Mareska may only select one of the two organizations, SACE or Savannah Riverkeeper, that he wishes to represent his interests. Although Mr. Mareska has authorized two organizations to represent his interests, the NRC Staff does not object to SACE’s representational standing because additional affiants have authorized only SACE to represent their interests.

distances from the Vogtle ESP site to their residences and the NRC Staff has verified the accuracy of these distances. Based on the above, the NRC staff does not challenge the standing of any of these three individuals to intervene in his own right. In addition, these individuals have authorized Savannah Riverkeeper to represent their interests in the instant proceeding. *Id.* Thus, the NRC staff does not object to Savannah Riverkeeper's standing to intervene.⁹

3. Atlanta Women's Action for New Directions ("WAND")

WAND has claimed representational standing based on the interests of three members: Terence Alton Dicks, Judith Lorraine Stocker, and Gwendolyn Walker. These individuals have provided affidavits in support of WAND's standing in which they assert that they reside in close proximity – within 50 miles – of the Vogtle ESP site and that nuclear facilities in close proximity to their homes “could pose a grave risk to [their] health and safety.” Affidavits of Terence Alton Dicks, Judith Lorraine Stocker, and Gwendolyn Walker ¶¶ 2 – 3. The affiants have provided approximate distances from the Vogtle ESP site to their residences and the NRC Staff has verified the accuracy of these distances. Based on the above, the NRC Staff does not challenge the standing of any of these three individuals to intervene in his or her own right. In addition, these individuals have authorized WAND to represent their interests in the instant proceeding. *Id.* Thus, the NRC staff does not object to WAND's standing to intervene.

⁹ As discussed in n.8, *supra*, although Mr. Mareska has authorized an additional organization to represent his interests, the NRC Staff does not object to Savannah Riverkeeper's representational standing because additional affiants have authorized only Savannah Riverkeeper to represent their interests.

4. Blue Ridge Environmental Defense League (“BREDL”)

BREDL has claimed representational standing based on the interests of sixteen members: Carey K. Barber, Audra Roper, Kia Luke, Charles W. Barber, Sr., Mildred L. Walker, Cicero Luke, Cynthia Richardson, Shirley Coleman, Heather Oglesby, Clarence Guidry, Holice C. McClain, Sr., Marvin McRae, Cora L. Moore, Melvin Lee Avery, Bernice Bussey, and Rosalyn Conyers (collectively, “BREDL Members”). These individuals have provided substantively similar affidavits in support of BREDL’s standing in which they assert that they reside in close proximity – within 50 miles – of the Vogtle ESP site and that nuclear facilities in close proximity to their homes “could pose a grave risk to [their] health and safety.” Affidavits of BREDL Members at ¶¶ 2 – 3. While some of the affiants have not provided distances from the Vogtle ESP site to their residences, the NRC Staff has verified that each residence is within 50 miles of the Vogtle ESP site.¹⁰ Based on the above, the NRC staff does not challenge the standing of any of these sixteen individuals to intervene in his or her own right. In addition, these individuals have authorized BREDL to represent their interests in the instant proceeding. *Id.* Thus, the NRC staff does not object to BREDL’s standing to intervene.

5. Center for a Sustainable Coast

Center for a Sustainable Coast has claimed representational standing based on the interests of three members: Sam Booher, Judy Jennings, and Karen Graineey.¹¹ Mr. Booher has provided an affidavit in support of Center for a Sustainable Coast’s standing in which he asserts

¹⁰ The Staff notes that two of the affiants, Clarence Guidry and Marvin McRae, did not include a statement that their residences are within 50 miles of the Vogtle ESP site. However, the Staff has verified that these individuals reside within 50 miles of the site.

¹¹ Ms. Jennings and Ms. Graineey both live in Savannah, GA, over 100 miles from the Vogtle ESP site, and therefore do not satisfy the “proximity presumption.” Due to the distance from their residences to the Vogtle ESP site, Ms. Jennings and Ms. Graineey cannot use the proximity principle to obtain standing and have therefore based their standing claims on an injury in fact. Since the Petition claims representative standing based only on the proximity of the Petitioners’ members to the Vogtle ESP site, the NRC Staff would object to Center for a Sustainable Coast’s standing if it were solely based upon the affidavits of Ms. Jennings and Ms. Graineey. See Petition at 5.

that he resides in close proximity – within 50 miles – of the Vogtle ESP site and that nuclear facilities in close proximity to his home “could pose a grave risk to [his] health and safety.” Affidavit of Sam Booher ¶¶ 2 – 3. Mr. Booher has provided the approximate distance from the Vogtle ESP site to his residence and the NRC Staff has verified the accuracy of this distance. Based on the above, the NRC staff does not challenge the standing of Mr. Booher to intervene in his own right. In addition, he has authorized Center for a Sustainable Coast to represent his interests in the instant proceeding. *Id.* Thus, the NRC staff does not object to Center for a Sustainable Coast’s standing to intervene.

II. ADMISSIBILITY OF PETITIONERS’ PROPOSED CONTENTIONS

A. Legal Standards Governing the Admission of Contentions

In addition to a demonstration of standing, as discussed above, to gain admission to a proceeding as a party, a petitioner must submit at least one valid contention that meets the requirements of 10 C.F.R. § 2.309(f)(1). For each contention, the petition must:

- (i) Provide a specific statement of the issue of law or fact to be raised or controverted;
- (ii) Provide a brief explanation of the basis for the contention;
- (iii) Demonstrate that the issue raised in the contention is within the scope of the proceeding;
- (iv) Demonstrate that the issue raised in the contention is material to the findings the NRC must make to support the action that is involved in the proceeding;
- (v) Provide a concise statement of the alleged facts or expert opinions which support the petitioner’s position on the issue and on which the petitioner intends to rely at hearing, together with references to the specific sources and documents on which the petitioner intends to rely to support its position on the issue; and
- (vi) Provide sufficient information to show that a genuine dispute exists with the applicant on a material issue of law or fact. This information must include references to specific portions of the application (including the

applicant's environmental report and safety report) that the petitioner disputes and the supporting reasons for each dispute, or, if the petitioner believes that the application fails to contain information on a relevant matter as required by law, the identification of each failure and the supporting reasons for the petitioner's belief.

These provisions "incorporate the longstanding contention support requirements of former [10 C.F.R.] § 2.714 – no contention will be admitted for litigation in any NRC adjudicatory proceeding unless these requirements are met." 69 Fed. Reg. at 2221. These admissibility requirements "are 'strict by design' and [the Commission] will reject any contention that does not satisfy these requirements." *Amergen Energy Co., LLC* (License Renewal for Oyster Creek Nuclear Generating Station), CLI-06-24, 64 NRC 111, 118 (2006), citing *Dominion Nuclear Conn., Inc.* (Millstone Power Station, Units 2 & 3), CLI-01-24, 54 NRC 349, 358 (2001), *pet. for reconsideration denied*, CLI-02-1, 55 NRC 1 (2002); and *Exelon Generation Co., LLC* (Early Site Permit for Clinton ESP Site), CLI-05-29, 62 NRC 801, 808 (2005).

Under the rules, a petitioner "must do more than submit 'bald or conclusory' allegation[s] of a dispute with the applicant." *Millstone*, CLI-01-24, 54 NRC at 358. Rather, the petitioner must "read the pertinent portions of the license application, . . . state the applicant's position and the petitioner's opposing view." *Id.* Moreover, "[the Commission's] rules require 'a clear statement as to the basis for the contentions and the submission of . . . supporting information and references to specific documents and sources that establish the validity of the contention.'" *Oyster Creek*, CLI-06-24, 64 NRC at 118-19, citing *Arizona Pub. Serv. Co.* (Palo Verde Nuclear Generating Station, Units 1, 2, & 3), CLI-91-12, 34 NRC 149, 155-56 (1991). Further, "[w]hen an issue arises over the scope of an admitted contention, NRC opinions have long referred back to the basis set forth in support of the contention." *Duke Energy Corp.* (McGuire Nuclear Station, Units 1 & 2), CLI-02-28, 56 NRC 373, 379 (2002) (citations omitted).

Finally, pursuant to 10 C.F.R. § 2.335(a), subject to limited exceptions, “no rule or regulation of the Commission, or any provision thereof . . . is subject to attack by way of discovery, proof, argument, or other means in *any* adjudicatory proceeding subject to this part.” (Emphasis added.) *E.g.*, *Dominion Nuclear Conn., Inc.* (Millstone Nuclear Power Station, Unit 2), CLI-03-14, 58 NRC 207, 218 (2003); *Dominion Nuclear North Anna, LLC* (Early Site Permit for North Anna ESP Site), LBP-04-18, 60 NRC 253, 264 (2004).

B. Petitioners’ Proposed Contentions

Petitioners submitted seven proposed contentions, which are discussed *seriatim* as they appear in the Petition, and as designated in the Petitioners’ December 27 supplement. As explained below, the Staff opposes admission of Petitioners’ proposed contentions, except as follows. The Staff does not oppose admission of Proposed Contention 1.1 as it relates to the ER’s discussion of baseline aquatic ecology conditions in the Savannah River. The Staff does not oppose admission of Proposed Contention EC 1.2 as it relates to the following specific issues in the area of thermal impacts: the putative absence of scientific studies or field observations to support the conclusions regarding thermal impacts; the asserted lack of data on actual thermal plume size since commencement of operation at the existing units; the ER’s purportedly insufficient discussion of only fish species and life history stages that provide support to its conclusion that additional units will not affect fish species; and the ER’s purportedly insufficient cumulative impact assessment based on lack of field monitoring data. In addition, the Staff does not oppose admission of Proposed Contention EC 1.2 as it relates to the ER’s purportedly incomplete discussion of the impacts of liquid chemical effluent discharges to the Savannah River.

1. PROPOSED CONTENTION EC 1.1: The Environmental Report (“ER”) fails to use quantitative analysis and field surveys to assess baseline habitat conditions and species diversity and abundance in the project[] area.

In Proposed Contention EC 1.1, Petitioners raise several issues related to baseline habitat conditions for the aquatic environment. First, Petitioners claim that the description in the ER “does not include a site-specific description of the reach of the Savannah River adjacent to Vogtle where the new intake and discharge structures are proposed.” Petition at 8, citing ER § 2.4.2.2. In support of this claim, Petitioners rely on paragraphs 6, 9-11, 17, and 18 of the Declaration of Shawn Paul Young, Ph.D (“Young Decl.”) (appended to the Petition as Exhibit 1.3). None of these paragraphs discusses the site description. As such, they do not support this basis for the proposed contention.

However, the Petition goes on to identify state the following three specific omissions from the baseline information provided in the ER regarding the Savannah River:

- The ER does not include field studies at the proposed intake and discharge sites and, therefore, fails to identify the “current aquatic species assemblage or the presence or absence of threatened, endangered or rare species in the project area.” *Id.*
- The ER lacks data concerning upstream and downstream migration of anadromous and diadromous species, or their habitat utilization, in the project area. *Id.*
- The ER does not address specific habitat types and utilization by resident and anadromous fish in the project area. *Id.*

In view of these asserted omissions, Petitioners conclude that the ER “fails to establish an environmental baseline that is the basis for evaluating impacts and alternatives.” *Id.* The Staff does not challenge the admissibility of this portion of the proposed contention.

This proposed contention also raises two issues that appear to be unrelated to baseline conditions, but rather challenge the Applicant’s assessment of the environmental impacts of construction and operation of the proposed units on aquatic resources. Because they do not fall within the scope of Proposed Contention 1.1 as stated by Petitioners, the Staff objects to their

admissibility as bases for the proposed contention, which, by its terms, addresses baseline conditions in the Savannah River. However, as discussed below, the Staff considered each of the issues in the context of other proposed contentions.

First, Petitioners contend that the ER does not examine flow-habitat relationships and the potential impacts of the project on habitat availability. Petition at 8. This bare assertion does not allege facts or provide expert opinion supporting the Petitioners' belief that this purported basis demonstrates a genuine dispute with SNC on a material issue of law or fact. Therefore, it does not provide a basis for an admissible contention, and should be rejected pursuant to 10 C.F.R. § 2.309(f)(1)(vi).

Second, Petitioners challenge the impacts analysis of the cooling system in that it fails to address fish species with "a greater likelihood of adverse impacts." Petition at 9. As an example, Dr. Young states, "the ER discusses only those species and their life stages that have a lower probability of entrainment and neglect to address those with high susceptibility." Young Decl. ¶ 16. Based on the discussion in the Young Declaration at ¶¶ 16-17, the Staff does not challenge this basis as it relates to the ER's assessment of entrainment impacts from operation of the proposed facilities. As discussed above, this basis does not support Proposed Contention 1.1. However, the Staff does not oppose this basis as support for Proposed Contention 1.2, discussed *infra*, as it relates to the ER's discussion of entrainment impacts.

In summary, for the reasons discussed above, the Staff does not oppose admission of Proposed Contention EC 1.1 as it relates to the ER's discussion of baseline aquatic ecology conditions in the Savannah River.

2. PROPOSED CONTENTION EC 1.2: The ER fails to identify and consider direct, indirect, and cumulative impacts of the proposed cooling system intake and discharge structures on aquatic resources.

Petitioners set out, in essence, two bases for Proposed Contention EC 1.2, each discussed in turn. For the reasons set forth below, the Staff does not oppose admission of the proposed contention.

Entrainment and Impingement

Petitioners contend that the ER does not estimate the level of mortality from impingement and entrainment in the proposed intake structure. Petition at 10.¹² Although not specifically referenced by the Petition, the Young Declaration addresses the ER discussion of entrainment and impingement in a more detailed fashion, and provides specific references to perceived errors in the ER. See Young Decl. ¶¶ 9-16. Specifically, the Young Declaration challenges (1) the ER's reliance on compliance with EPA regulations to separately assess entrainment and impingement in the ER (*Id.* ¶ 9); (2) the lack of seasonal field studies at the existing intake structures (*Id.* ¶ 10); (3) the lack of data in the ER for seasonal or total entrainment losses by species or by life history stage (*Id.* ¶ 11); (4) the purportedly improper assumptions in the 1985 entrainment model for the existing units on which the ER bases some of its conclusions (*Id.* ¶ 12); (5) the ER's omission of "normal and worst case scenarios based upon species composition in the river channel at different flows" (*Id.* ¶ 13);¹³ and (6) the lack of a

¹² Similarly, in its statement of Proposed Contention EC 1.1, Petitioners contend that "the ER fails to evaluate entrainment potential of the proposed intake." Petition at 9, citing John Eric Edinger, *Power Plant Intake Entrainment Analysis*, 126 *Journal of Energy Engineering* 1 (2000) (appended to the Petition as Exhibit 1.4).

¹³ Paragraphs 14 and 15 of the Declaration cite additional information from the ER regarding withdrawal rates from the Savannah River.

comprehensive discussion of all fish species likely to inhabit the affected portion of the Savannah River, including “important and commercially valuable species” (*Id.* ¶ 16).¹⁴

In addition, Petitioners assert that the ER does not “adequately address” the cumulative impacts on aquatic resources of the new cooling system, combined with the current impacts of the existing system, because the Applicant has not monitored impingement or entrainment associated with the operating Vogtle units. Petition at 12-13; see Young Decl. ¶ 10.

The Staff does not challenge the proposed contention as it relates to the ER’s discussion of entrainment and impingement, including the cumulative impacts thereof, based upon the specific challenges to the ER articulated in the Young Declaration, ¶¶ 9-16.

Environmental Impacts of Chemical and Thermal Effluents on Aquatic Species

Petitioners further contend that the “ER’s treatment of impacts on aquatic species resulting from effluent discharges to the Savannah River is flawed.” Petition at 11. Petitioners address both chemical and thermal effluents. Regarding chemical effluents, Petitioners cite to ER Section 5.2.3.1 and contend that the ER does not evaluate potential impacts of liquid chemical effluents on the aquatic community. Specifically, Petitioners assert that the ER (1) describes the chemical discharge associated with the proposed new units as “small” and “relatively innocuous”, but “fails to characterize the discharge in terms of constituents and amount;” and (2) “does not disclose whether chemical constituents in the liquid effluent will be discharged at harmful levels.” Petition at 11-12.

Essentially, Petitioners here plead a contention of omission. In view of the specific purported deficiencies articulated with respect to the ER, the Staff does not oppose admission of the portion of this proposed contention related to the ER’s discussion of the impacts of liquid chemical effluent discharges to the Savannah River.

¹⁴ As discussed *supra* with respect to Proposed Contention 1.1, this basis is also supported by the Petition’s discussion at page 9.

With respect to thermal impacts, Petitioners contend that ER Section 5.3.2 “fails to address potential impacts of thermal pollution on aquatic species at the point of discharge and downstream.” Petition at 12. As support for this portion of the proposed contention, Petitioners reference the Young Declaration, which principally asserts that the ER provides “no scientific studies or field observations” to support the conclusions regarding thermal impacts.

Young Decl. ¶ 17.¹⁵ The Declaration goes on to observe, among other things, that (1) the ER states that no data on actual thermal plume size has been collected since commencement of operation at the existing units, and (2) the ER only discusses those fish species and life history stages that provide support to its conclusion that additional units will not affect fish species. *Id.* The Declaration also states that “no modeling or data are presented for thermal discharge impacts at the variable river-flows that occur on the Middle Savannah River.” *Id.*

¶ 18. Dr. Young argues that, without such data, it is not possible to assess impacts from the current or proposed discharge with respect to the impacts to various fish species, across life stages, from reduced river flow. *Id.* The Young Declaration also identifies a number of species that may be affected by thermal changes. *Id.* ¶ 20.

In addition, Petitioners assert that the ER does not evaluate cumulative impacts from the proposed discharge system, “combined with the existing discharge and other sources of pollution in the area,” based on lack of field monitoring data from the existing discharge structure. Petition at 13; see Young Decl. ¶ 17-18.

The Staff does not challenge this portion of the proposed contention as it relates to the specific issues discussed above; namely, the putative absence of scientific studies or field observations to support the conclusions regarding thermal impacts; the asserted lack of data on

¹⁵ Similarly, Petitioners state, in Proposed Contention EC 1.1, “Although the ER does include a summary of computer modeling of the heat plume, the analysis is not supported by field studies or data that assess site-specific and species-specific factors.” Petition at 9.

actual thermal plume size since commencement of operation at the existing units; the ER's purportedly insufficient discussion of only those fish species and life history stages that provide support to its conclusion that additional units will not affect fish species; and the assertion of insufficient cumulative impact assessment based on a purported lack of field monitoring data.¹⁶

3. PROPOSED CONTENTION EC 1.3: The ER fails to satisfy 10 C.F.R. § 51.45(b)(3) because it fails to address impacts to aquatic species in its discussion of alternatives. In particular, the ER's discussion of the no-action alternative and of alternative cooling technologies fails to consider environmental and economic benefits of avoiding construction of the proposed cooling system.

No-Action Alternative

As a basis for Proposed Contention EC 1.3, with respect to the no-action alternative, Petitioners state that the ER "fails to estimate or quantify the economic and environmental benefits of avoiding impacts to aquatic species in the Savannah River." Petition at 14.

As discussed below, this argument fails to present a genuine dispute with the applicant.

Council on Environmental Quality ("CEQ") regulations specify that the alternatives analysis in an environmental impact statement ("EIS") "include the alternative of no action." 40 C.F.R. § 1502.14(d); see 10 C.F.R. Part 51, Subpart A, Appendix A, "Format for Presentation of Material in [EISs]" ("The alternative of no action will be discussed."). In implementing this requirement, the Commission has held that there need be only a brief discussion of the "no-action" alternative. *Hydro Resources, Inc.* (P.O. Box 15910, Rio Rancho, NM 87174), CLI-01-4, 53 NRC 31, 54 (2001) (citing *Headwaters, Inc. v. Bureau of Land Mgmt.*, 914 F.2d 1174, 1181 (9th Cir. 1990)). It is most simply viewed as maintaining the *status quo*. *Hydro Resources*, CLI-01-4, 53 NRC at 54 (citing *Ass'n of Public Agency Customers v. Bonneville Power Admin.*, 126 F.3d 1158, 1188 (9th Cir. 1997); see *Akiak Native Community v.*

¹⁶ It should be noted, however, that Petitioners do not identify any disagreement with the Applicant on how the thermal model itself was employed. See Young Decl. ¶ 21.

United States Postal Serv., 213 F.3d 1140, 1148 (9th Cir. 2000). CEQ guidance states, in a case such as this involving agency approval of a proposed project:

“No action” in such cases would mean the proposed activity would not take place, and the resulting environmental effects from taking no action would be compared with the effects of permitting the proposed activity or an alternative activity to go forward.

Forty Most Asked Questions Concerning CEQ’s National Environmental Policy Act Regulations, 46 Fed. Reg. 18,026, 18,027 (Mar. 23, 1981).

In order to demonstrate a genuine dispute with the applicant, the contention admissibility rules require a petitioner to include in its proposed contention “references to specific portions of the application” that the petitioner disputes and the supporting reasons for that dispute.

10 C.F.R. § 2.309(f)(1)(vi). Petitioners here do not challenge any particular section of the ER. Although they may be referencing the discussion of the no-action alternative in ER Section 9.1, which, in fact, does not explicitly set out the benefits associated with not constructing and operating two new units at the Vogtle ESP site, Petitioners appear to ignore the cost-benefit analysis contained in ER Section 10.4, which sets forth the applicant’s assessment of the costs and benefits associated with the proposed action, including environmental costs, both in that ER section and other sections referenced therein.¹⁷ Because Petitioners have not identified a dispute with these discussions, they fail to challenge the ER, and therefore have not identified a genuine dispute with the applicant on a material issue of law or fact. See 10 C.F.R.

§ 2.309(f)(1)(vi). For this reason, this portion of the proposed contention should be rejected.

¹⁷ “Petitioners have an ‘ironclad obligation’ to examine the application and publicly available documents to uncover any information that could serve as a foundation for a contention.” *Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 & 4), CLI-01-17, 54 NRC 3, 19 (2001) (citing *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, & 3), CLI-99-11, 49 NRC 328, 338 (1999)). See Final Rule, “Rules of Practice for Domestic Licensing Procedures - Procedural Changes in the Hearing Process,” 54 Fed. Reg. 33,168, 33,170 (Aug. 11, 1989).

Alternative Cooling Technologies - Sensitive Biological Resources

Petitioners also complain that the ER “dismisses dry cooling as an alternative cooling technology without any discussion of aquatic impacts,” citing the discussion in ER Section 9.4.1.1 of alternative heat dissipation systems. Petition at 14-15. Noting that the ER states that dry cooling is appropriate where, *inter alia*, the source of cooling water is associated with extremely sensitive biological resources, Petitioners claim that the ER “ignores . . . extremely sensitive biological resources” in the Savannah River. *Id.* In this vein, Petitioners argue that the ER “fails to evaluate the impacts of the *proposed* cooling system intake and discharge on threatened and endangered species in the project area.” *Id.* (Emphasis added.) Although Proposed Contention EC 1.3 is phrased in terms of alternatives, this portion of the basis primarily speaks to the applicant’s evaluation of environmental impacts of the proposed action itself, essentially as a continuation of Proposed Contention EC 1.2, which shapes the Staff’s answer below.¹⁸

In particular, Petitioners note that shortnose sturgeon, a Federally-listed endangered species, have been collected at the Savannah River Site. Petition at 15. Finally, Petitioners argue that the ER fails to address potential alternatives to protect the robust redhorse, which has been designated an endangered species by the State of Georgia. *Id.*

With regard to the proposed action, relevant discussion appears in the ER in several places. As an initial matter, Section 2.4.2.3 discusses sensitive aquatic populations, and identifies both the shortnose sturgeon and the robust redhorse. See ER at 2.4-15.¹⁹ ER Section 4.3.2 addresses the environmental impact of construction activities on aquatic

¹⁸ Cf. *McGuire*, CLI-02-28, 56 NRC at 379 (“[w]hen an issue arises over the scope of an admitted contention, NRC opinions have long referred back to the basis set forth in support of the contention.”).

¹⁹ The shortnose sturgeon is also discussed in the ER at pages 2.4-10 – 2.4-11, in the discussion of diadromous fish of the Middle Savannah River.

ecosystems. Regarding the ESP site and vicinity, Section 4.3.2.1 concludes that impacts to aquatic communities from construction will be small and temporary. ER at 4.3-4.

Section 4.3.2.2, which addresses the construction of a new transmission line, addresses the shortnose sturgeon specifically, stating:

Only two listed aquatic species, the shortnose sturgeon and the Atlantic pigtoe mussels, are known to occur in the counties . . . where the new line will be constructed [reference omitted]. As noted in Section 2.4.2, shortnose sturgeon spawn in the Savannah River. The new transmission line would not cross the Savannah River, but could cross one or more of its tributaries, including Brier Creek and McBean Creek. Because shortnose sturgeon do not leave the Savannah river during spawning runs to enter tributary streams (Hall, Smith and Lamprecht 1991; March et al. 2005), construction of this line will have no effect on spawning shortnose sturgeon.

ER at 4.3-5.

Environmental impacts of operation on aquatic ecosystems from the proposed intake system are addressed in ER Section 5.3.1.2. Impacts from the proposed discharge systems are discussed in ER Section 5.3.2.2. The ER further assesses thermal, chemical, and physical impacts to aquatic communities. ER at 5.3-5.²⁰

In the context of this proposed contention, Petitioners do not challenge these discussions as they relate to environmental impacts on sensitive biological resources. Absent such a specific challenge to the application, Petitioners have not articulated a genuine dispute with the applicant on a material issue of law or fact. See 10 C.F.R. § 2.309(f)(1)(vi). Further, Petitioners' statements omit a "concise statement of the alleged facts or expert opinions" that support their position on the issue, and on which they intend to rely at hearing. See 10 C.F.R. § 2.309(f)(1)(v). For these reasons, this portion of the proposed contention is inadmissible.

In summary, as discussed above, Proposed Contention EC 1.3 should be rejected.

²⁰ In Section 5.3.2.2.1 ("Thermal Effects"), the ER specifically calls out "important migrating fish species," including the shortnose sturgeon. *Id.*

4. PROPOSED CONTENTION EC 2: The ER fails to provide a thorough analysis of the disparate environmental impacts of the project on the minority and low-income communities residing in close proximity to the site.

The essence of Proposed Contention EC 2 is that the ER is inadequate because it fails to provide a thorough analysis of the disparate environmental impacts of operation of two new units at the Vogtle ESP site on the minority and low-income communities residing in close proximity to the site. In particular, Petitioners contend that the ER neglects to recognize subsistence fishing along the Savannah River as an exposure pathway that will disproportionately impact low-income and minority populations. Petition at 15, 19.

Petitioners base their proposed contention on the ER's purported failure to:

- (1) consider the unique burdens faced by minority and low-income populations who depend on the Savannah River for food;
- (2) consider that impacts to important fish species targeted by subsistence fishermen result in disproportionate impacts to minority populations that rely on these fish as a source of nutrition;
- (3) take into account the assertedly disproportionate impact on minority and low-income populations based on their higher-than-average consumption of fish;
- (4) consider the disproportionate impact on low-income and minority populations based on the cumulative effects of hazardous substances in the Savannah River, as well as on the asserted increased harm posed by certain cooking methods prevalent in the area; and
- (5) consider the purported lack of knowledge of fish consumption advisories, or awareness of risks, among minority and low-income populations. See Petition at 20-22.

NRC Staff Response

In the context of an environmental justice ("EJ") inquiry regarding a proposed uranium enrichment facility, the Commission held, among other things, that "disparate impact" analysis is the agency's principal tool for advancing EJ under NEPA. *Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), CLI-98-03, 47 NRC 77, 100 (1998). Further, the "NRC's

goal is to identify and adequately weigh, or mitigate, effects on low-income and minority communities that become apparent only by considering factors peculiar to those communities.”

Id. Subsequently, in a proceeding involving the licensing of a proposed fuel storage facility, the Commission reiterated that Executive Order 12,898 instructed Federal agencies to consider EJ in their decisions - “that is, whether a proposed government action will have a *disproportionately high and adverse environmental impact* on minorities and low-income populations.”

Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), CLI-02-20, 56 NRC 147, 153 (2002) (emphasis added, and citing Exec. Order No. 12,898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, 59 Fed. Reg. 7629 (Feb. 11, 1994)). Most recently, the Commission published a final policy statement setting out its views and policy on the significance of the Executive Order and guidelines on when and how EJ will be considered in NRC licensing and regulatory actions. Policy Statement on the Treatment of Environmental Justice Matters in NRC Regulatory and Licensing Actions, 69 Fed. Reg. 52,040 (Aug. 24, 2004). Therein, the Commission concluded:

The NRC’s obligation is to assess the proposed action for significant impacts to the physical or human environment. Thus, admissible contentions in this area are those which allege, with the requisite documentary basis and support as required by 10 CFR Part 2, that *the proposed action* will have *significant adverse impacts* on the physical or human environment that were not considered because the impacts to the community were not adequately evaluated.

Id. at 52,047 (emphasis added).

As explained below, the proposed contention, on the whole, is inadmissible on the grounds that it neither sets forth sufficient information to show that a genuine dispute exists regarding the Applicant’s discussion of the environmental impacts on minority and low-income populations, nor raises an issue material to the findings the NRC must make to support the proposed action. See 10 C.F.R. §§ 2.309(f)(1)(iv), (vi).

As an initial matter, Petitioners cite to ER Table 3.0-1, in which SNC states the plant design parameters for annual normal releases from two new units are projected to be .52 curies, excluding tritium (annual activity contained in routine liquid effluent streams), and 2020 curies of tritium (annual activity of tritium contained in routine liquid effluent streams). See ER at 3.04-3.05 (“Table 3.0-1, “VEGP Site Characteristics, AP1000 Design Parameters and Site Interface Values”). See Petition at 19. However, Petitioners do not challenge these figures, or, more importantly, allege facts or provide expert opinion on the effect of these projected liquid effluents on fish populations in the Savannah River. Rather, Petitioners’ asserted bases for Proposed Contention EC 2 focus on impacts resulting from operations at the Savannah River Site completely unrelated to the Vogtle ESP application, and therefore do not raise an issue material to the findings that the NRC must make to support the proposed action. See 10 C.F.R. § 2.309(f)(1)(iv).

Further, the information provided by Petitioners to support the validity of this proposed contention does not show a link between the impacts from subsistence consumption of fish caught in the Savannah River and operation of new units at Vogtle. In the ER, SNC states, among other things, that it investigated the possibility of subsistence-living populations in the vicinity of Vogtle, and none of its contacts reported dependencies or practices, such as subsistence agriculture, hunting, or fishing, through which such populations could be disproportionately adversely affected by the project. ER at 5.8-17. Petitioners’ arguments to the contrary fail for one fundamental reason – the documents provided as bases for their arguments do not demonstrate a genuine dispute with the application.

The contents of the reports discussed below are subject to Board scrutiny, both as to those portions of the reports that support Petitioners’ assertions, and those portions that do

not.²¹ As discussed below, the documents used by Petitioners to support their proposed contention address environmental impacts on fishing associated with operations of the Savannah River Site, not with the proposal at issue here, construction and operation of two new nuclear units at the Vogtle ESP site.

In apparent contrast to the ER, Petitioners contend that many people, particularly African Americans, use the Savannah River for subsistence fishing, and that those persons would be disproportionately affected (via bioaccumulation) by increases in hazardous and radioactive material from the addition of two new reactors at the Vogtle site. As support for this proposition, Petitioners cite Arjun Makhijani & Michele Boyd, “Nuclear Dumps by the Riverside: Threats to the Savannah River from Radioactive Contamination at the Savannah River Site,” dated March 11, 2004 (Mar. 11, 2004) (“Makhijani Report”) (appended to the Petition as Exhibit 2.3). Petitioners correctly cite the report (*see, e.g.*, Makhijani Report at 9, 41-43), but it nevertheless fails to support their proposed contention. The Report discusses concerns associated with water resources resulting from contamination generated by operations at the *Savannah River Site*. *Id.* at 6. It provides no support for the premise that any reactors constructed *at the Vogtle site* have now, or would in the future, result in disproportionately high and adverse impacts – or indeed, *any* impacts, on minority and low-income populations that rely on subsistence fishing. Therefore, this basis for the proposed contention should be rejected for its failure to articulate a genuine dispute with the application.

Further, Petitioners’ bare assertion (Petition at 20) that the ER is inadequate for its purported failure to consider that impacts to “important fish species” will result in

²¹ Regarding consideration of information proffered to establish the validity of a proposed contention, a document put forth by an intervenor as supporting the basis for a contention is subject to scrutiny, both for what it does and does not show. The contents of such documents are subject to scrutiny by the Licensing Board, both as to those portions that support a petitioner’s assertions, and those portions that do not. *Yankee Atomic Elec. Co.* (Yankee Nuclear Power Station), LBP-96-2, 43 NRC 61, 90, *rev’d in part on other grounds*, CLI-96-7, 43 NRC 235 (1996).

disproportionate impacts to the minority populations that rely on the fish is baseless. Absent *any* supporting discussion (such as alleged facts or expert opinion that would be relied on at hearing) for the Petitioners' belief that this omission creates a genuine dispute with the Applicant, this statement does not constitute a basis sufficient to support an admissible contention, and should be rejected. See 10 C.F.R. § 2.309(f)(1)(v), (vi).

Next, Petitioners assert that the ER fails to account for the disproportionate impact on minority and low-income populations based on their higher-than-average consumption of fish. Petition at 21. As support for this proposition, Petitioners rely on Joanna Burger *et al.*, "Factors in Exposure Assessment: Ethnic and Socioeconomic Differences in Fishing and Consumption of Fish Caught Along the Savannah River, 19 Risk Analysis 427 (1999) ("Burger Report") (appended to the Petition as Exhibit 2.4), and Joanna Burger *et al.*, "Science, Policy, Stakeholders, and Fish Consumption Advisories: Developing a Fish Fact Sheet for the Savannah River," 27 Environmental Management 501 (2001) ("Burger Report II") (appended to the Petition as Exhibit 2.5). The Burger Report is cited for the propositions that African Americans consume more fish per year than Caucasians, often eat fish in "much larger portions," and, further, that low-income individuals also consume greater amounts of fish than those with higher incomes." See Burger Report at 431. As to these points, Petitioners conclude:

The combination of these factors means that African-Americans and low-income individuals are at specific risk from hazardous materials in the Savannah River, *and that any increase in such materials from the addition of two new nuclear reactors will adversely affect those populations in particular.*

Petition at 21 (emphasis added). Assuming that the statements in the Burger reports are true, they nevertheless do not provide support for the conclusion, drawn above by Petitioners, that two new Vogtle units will have *disproportionately* high and adverse impacts upon minority and/or

low-income populations.²² Like the Makhijani Report (which, in fact, cites the Burger Report), both of these reports address contamination from the Savannah River Site. They do not support, in any way, an argument that two new reactors at Vogtle would create disproportionately high and adverse environmental impacts on a minority or low-income population. In short, this basis does not demonstrate a genuine dispute with the Applicant.

Petitioners' argument as to the ER's failure to take into account the effect of cooking methods on contaminants is similarly unavailing. Petitioners cite to J. Burger *et al.*, "Effects of Cooking on Radiocesium in Fish from the Savannah River: Exposure Differences for the Public," 46 Arch. Environ. Contam. Toxicol. 231, 232 (2004) ("Cooking Effects Report") (appended to the Petition as Exhibit 2.6) for the proposition that radiocesium levels increase by 32% when fish is fried with breading, and by 62% without breading, and that over 80% of persons interviewed in the referenced study deep-fried their fish regularly. See Burger Report at 432, Table 1. Not only does this argument fail for the reason stated above – its lack of relation to the two proposed units at issue in the application – it also fails because the documents cited, on their face, do not support the proposition that cooking methods have a disproportionately high and adverse impact on minority and low-income populations. Rather, the Cooking Effects Report discusses cooking methods generally, without calling out minority and/or low-income populations. As such, it fails to support this basis for the proposed contention. See 10 C.F.R. § 2.309(f)(1)(vi).

Finally, Petitioners argue that the ER is inadequate because it fails to consider the asserted lack of knowledge of fish consumption advisories, or awareness of associated risks, among minority and low-income populations. Petition at 22. Petitioners again rely on the

²² The Staff does not concede that these reports, or, indeed, any of the material relied upon for this proposed contention, would be sufficient to support a contention regarding *disproportionately high and adverse* impacts upon minority and/or low-income populations, even if they did, *arguendo*, have a nexus to the proposed Vogtle units.

Burger Report, noting that minority and low-income populations have “less awareness of the consumption advisories” as compared to other groups. *Id.*, citing Burger Report II at 507. Petitioners conclude that this factor, in combination with a purported higher-than-average consumption of fish from the river, means that “minority and low-income populations are particularly susceptible to health risks posed by contamination.” Petition at 22. Once again, Petitioners show no nexus between the information in its supporting documents and the construction and operation of two new units at Vogtle. Therefore, this basis does not support an admissible contention.

In summary, nowhere in its proposed contention and bases do Petitioners argue that the environmental impact *from the proposed reactors* will have a disproportionately high and adverse impact on the identified minority or low-income populations, relative to the general population. Absent a claim to the contrary, EJ considerations are not pertinent. *Cf. PFS*, 56 NRC at 154; Policy Statement at 52,047 (“If there will be no significant impact as a result of the proposed action, it follows that an EJ review would not be necessary.”). Since the proposed contention fails to identify a significant impact on a minority or low-income population *resulting from the proposed action*, it does not demonstrate a genuine dispute implicating EJ considerations and NEPA.

Therefore, Proposed Contention EC 2, on the whole, does not satisfy the requirements of 10 C.F.R. § 2.309(f)(1)(vi), and should be rejected.

5. PROPOSED CONTENTION EC 3: The ER fails to discuss the environmental implications of the substantial likelihood that spent fuel generated by the new reactors will have to be stored at the Vogtle site for more than 30 years after the reactors cease to operate, and perhaps indefinitely.

In Proposed Contention EC 3, Petitioners fundamentally argue that the ER improperly omits a discussion of the environmental impacts of spent fuel potentially generated by two new

units constructed and operated at the Vogtle ESP site remaining onsite for more than 30 years after those reactors cease operation. Petition at 26. This omission is improper, Petitioners argue, because the Waste Confidence Decision “has been outdated by changed circumstances and new and significant information.” *Id.* In particular, the Petitioners make the following three assertions as bases for their proposed contention:

- The 1990 Waste Confidence Decision is based on the assumption that work on a second repository for spent fuel and high-level waste will begin in 2010. However, this assumption is unreasonable because it is unlikely that work on a second repository will begin “while the Yucca Mountain proceeding is underway,” and that proceeding has been “substantially delayed,” with the Department of Energy (“DOE”) now predicting that the proposed repository will not open until 2017. *Id.* at 30.
- At the time of the 1990 Waste Confidence Decision, “the prospect of new reactor licensing was virtually nonexistent.” *Id.* In contrast, Petitioners state that, in 2005, Congress approved “more than \$13 billion” for new reactors. In addition, several applications for ESPs are pending, and a number of companies have stated that they intend to file combined license applications. Due to these developments, Petitioners state that “it is ‘clear’ that the time has come to conduct a careful and thorough evaluation of the availability of a second repository.” *Id.*
- The Waste Confidence Decision was made prior to the attacks of September 11, 2001, and therefore does not reflect a current assessment of the vulnerability of spent fuel stored at nuclear power plant sites to accidents caused by intentional attack. The environmental impacts of storing spent fuel at reactor sites for any period of time should, therefore, be re-examined in light of new information regarding the threat of intentional attack against U.S. facilities, including nuclear power plants. *Id.*

NRC Staff Response

The “Waste Confidence” proceeding, a generic rulemaking which was initially completed in 1984, assessed the degree of assurance that radioactive wastes can be disposed of safely, determined when disposal or offsite storage would be available, and determined whether the wastes could be stored safely at reactor sites beyond the expiration of existing facility licenses until offsite disposal or storage was available. See *generally* Waste Confidence Decision, 49 Fed. Reg. 34,658 (Aug. 31, 1984); Final Rule, Requirements for Licensee Actions Regarding the Disposition of Spent Fuel Upon Expiration of Reactor Operating Licenses, 49 Fed. Reg. 34,688 (Aug. 31, 1984). At that time, the Commission made five findings of

reasonable assurance regarding the safe disposal of high-level radioactive waste and spent fuel (see 49 Fed. Reg. at 34,659-60) and codified those findings at 10 C.F.R. § 51.23. At bottom, the Waste Confidence Rule simply provides direction on how to handle the discussion, in the context of the agency's NEPA review, of certain environmental impacts related to spent fuel in certain types of licensing proceedings. See 10 C.F.R. § 51.23(b).

The Commission has reviewed the Waste Confidence Decision twice, in 1990 and 1999. In 1990, the Commission made minor revisions to two findings, and reaffirmed the remaining findings. See Waste Confidence Decision Review, 55 Fed. Reg. 38,474 (Sept. 18, 1990). The Commission's 1999 review found that a comprehensive evaluation of the Waste Confidence Decision at that time was not necessary, given that experience and developments since 1990 confirmed the Commission's 1990 findings. See Waste Confidence Decision Review: Status, 64 Fed. Reg. 68,005 (Dec. 6, 1999).

As stated above, and as Petitioners correctly note, issues associated with the Waste Confidence Decision have been consistently addressed through rulemaking, and the Decision itself is codified at 10 C.F.R. § 51.23. As such, Proposed Contention EC 3 is plainly inadmissible because it constitutes an impermissible challenge to the Commission's regulations. 10 C.F.R. § 2.335(a) ("[N]o rule or regulation of the Commission . . . is subject to attack . . . in any adjudicatory proceeding subject to [10 C.F.R. Part 2]"). Indeed, similar proposed contentions have been rejected on this basis in previous decisions involving ESP applications. See *North Anna ESP*, LBP-04-18, 60 NRC 253, 268-69 (2004); *System Energy Resources, Inc.* (Early Site Permit for Grand Gulf ESP Site), LBP-04-19, 60 NRC 277, 296-97 (2004);

Exelon Generation Co. LLC (Early Site Permit for Clinton ESP Site), LBP-04-17, 60 NRC 229, 246-47 (2004).²³

Section 2.335(b) offers litigants in NRC adjudicatory proceedings the opportunity to request that “a Commission rule or regulation or any provision thereof . . . be waived or an exception made for the particular proceeding.” The provision goes on to state:

The sole ground for petition of waiver or exception is that special circumstances with respect to the subject matter of the particular proceeding are such that the application of the rule or regulation (or a provision of it) would not serve the purposes for which the rule or regulation was adopted. The petition must be accompanied by an affidavit that identifies the specific aspect or aspects of the subject matter of the proceeding as to which the application of the rule or regulation (or provision of it) would not serve the purposes for which the rule or regulation was adopted. The affidavit must state with particularity the special circumstances alleged to justify the waiver or exception requested.

In this case, Petitioners have failed to establish that they meet any of the requirements imposed by the Commission on litigants wishing to waive a Commission rule. Indeed, Petitioners have not even attempted to comply with the particularized requirements of Section 2.335(b) (*i.e.*, submission of a supporting affidavit), and, in any event, do not demonstrate any special circumstances sufficient to support a request to set aside the rule for the instant proceeding. Absent such a showing, which Petitioners here have not made, a request to reconsider the Waste Confidence Rule must be addressed via rulemaking. *Clinton ESP*, LBP-04-17,

²³ Furthermore, with respect to Petitioners’ second basis, discussed above, the Licensing Board in the *Clinton*, *North Anna*, and *Grand Gulf* proceedings noted that when the Commission amended the Waste Confidence Rule in 1990, “it clearly contemplated and intended to include waste produced by a new generation of reactors.” *Clinton ESP*, LBP-04-17, 60 NRC at 247; *North Anna ESP*, LBP-04-18, 60 NRC at 269; *Grand Gulf ESP*, LBP-04-19, 60 NRC at 296 (all three decisions citing the 1990 Waste Confidence Decision Review, as follows:

See 55 Fed. Reg. [at] 38,504 . . . (“The availability of a second repository would permit spent fuel to be shipped offsite well within 30 years after expiration of [the current fleet of] reactors’ [operating licenses]. The same would be true of spent fuel discharged from any new generation of reactor designs.”); see *also id.* at 38,501-04.)

60 NRC at 247; *North Anna ESP*, LBP-04-18, 60 NRC at 270; *Grand Gulf ESP*, LBP-04-19, 60 NRC at 297.

For these reasons, Proposed Contention EC 3 relating to waste confidence issues is inadmissible.

6. PROPOSED CONTENTION EC 4: The ER fails to address direct, indirect, and cumulative environmental impacts of intentional attacks on the proposed nuclear power plants, or to evaluate a reasonable range of alternatives for avoiding or mitigating those impacts.

Petitioners argue, in Proposed Contention EC 4, that the ER does not satisfy NEPA and 10 C.F.R. § 51.45(b) because it does not address (1) the environmental impacts of intentional attacks on Vogtle²⁴ or the proposed new units, or (2) evaluate a reasonable range of alternatives for avoiding or mitigating these impacts. Petition at 32.

As a basis for these assertions, Petitioners cite the recent decision of the U.S. Court of Appeals for the Ninth Circuit in *San Luis Obispo Mothers for Peace v. NRC*, 449 F.3d 1016 (9th Cir. 2006) ("*Mothers for Peace*"), in which the Court held, among other things, that NRC's rationale for its refusal to consider environmental effects of terrorist attack on a proposed interim spent fuel storage installation at the Diablo Canyon Power Plant under NEPA was not reasonable.

NRC Staff Response

As an initial matter, a petition for a writ of certiorari has been filed by the affected licensee in the *Mothers for Peace* proceeding, Pacific Gas and Electric Company ("PG&E"). See Petition for a Writ of Certiorari, 2006 WL 2826275 (U.S. Oct. 3, 2006) (No. 06-0466).²⁵

²⁴ Petitioners contend (Petition at 34) that the ER should also evaluate the potential that severe accidents caused by attacks on the existing Vogtle units will lead to accidents at the new units.

²⁵ Petitioners assert (Petition at 33, n.36) that, because the NRC did not file its own petition for certiorari, or submit a response in support of PG&E, it "does not consider the decision to warrant Supreme Court review and is prepared to carry out the Ninth Circuit's mandate." In fact, on December 15, 2006, the
(continued...)

As that petition has not yet been acted upon by the Supreme Court, the Ninth Circuit's decision may ultimately be modified or reversed. Given the foregoing, the Commission has not altered its position that the agency is not obligated to evaluate the environmental impacts of intentional malevolent acts as a part of its NEPA review of a proposed licensing action. *E.g., Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-02-25, 56 NRC 340 (2002); *Duke Cogema Stone & Webster* (Savannah River Mixed Oxide Fuel Fabrication Facility), CLI-02-24, 56 NRC 335 (2002); *Dominion Nuclear Conn., Inc.* (Millstone Nuclear Power Station, Unit 3), CLI-02-27, 56 NRC 367 (2002); *Duke Energy Corp.* (McGuire Nuclear Station, Units 1 & 2; Catawba Nuclear Station, Units 1 & 2), CLI-02-26, 56 NRC 358 (2002).

In accordance with the foregoing Commission decisions, Petitioners' Proposed Contention EC 4 fails to constitute an admissible contention, because it is not material to the findings the NRC must make to support the action that is involved in the proceeding. 10 C.F.R. § 2.309(f)(1)(iv). See *Grand Gulf*, LBP-04-18, 60 NRC at 265-66 ("In order to be admissible, the regulations require that all contentions assert an issue of law or fact that is material to the outcome of a licensing proceeding, meaning that the subject matter of the contention must impact the grant or denial of a pending license application."). Further, the proposed contention is not within the scope of this ESP proceeding and must, therefore, be rejected. 10 C.F.R. § 2.309(f)(1)(iii); *Clinton ESP*, LBP-04-17, 60 NRC at 241; *North Anna ESP*, LBP-04-18, 60 NRC at 265; *Grand Gulf ESP*, 60 NRC at 289.

Further, the Court's decision in *Mothers for Peace* is not binding on the NRC in this proceeding, an adjudication in which the Ninth Circuit is not a potential venue for review of the

²⁵(...continued)

Solicitor General filed a "Brief for the Federal Respondents" ("Brief") which stated, among other things, that, although the Federal Respondents recommend that the certiorari petition be denied, "[t]he decision of the court of appeals is incorrect, and the United States would participate in support of petitioner [PG&E] if certiorari were granted . . ." Brief at 24 (emphasis added).

Commission's final action. See 28 U.S.C. § 2343; *Georgia Dep't of Med. Assistance v. Bowen*, 846 F.2d 708, 710 (11th Cir. 1988) ("It is clear, of course, that an agency of the United States is not required to accept an adverse determination by one circuit court of appeals as binding throughout the United States."). Accordingly, the Board should continue to apply established precedent and reject this proposed contention unless the Commission acts to change its position.²⁶

7. PROPOSED CONTENTION EC 5: The ER fails to disclose and analyze an adequate range of alternatives to the proposal.

In Proposed Contention EC 5, Petitioners argue that the ER's discussion of energy alternatives is flawed because (1) it is based on "premature and incomplete information that cannot be adequately assessed" at the current time, because Georgia Power Company

²⁶ Even if such a contention were admissible, the following bases would not support admitting this contention. First, as part of this proposed contention, Petitioners state that "the ER should evaluate a range of reasonable design alternatives to the proposed action" that would protect the environment from a successful attack, including "below-ground construction." Petition at 35. To support its argument for a design alternative of below-grade construction, Petitioners append, as Exhibit 4.2, a 1953 letter from Dr. Edward Teller to the Honorable Sterling Cole, chairman of the Joint Committee on Atomic Energy, recommending such construction. However, this letter does not support the proposed contention. "A document put forth by an intervenor as supporting a basis for a contention is subject to scrutiny both for what it does and does not show." *Yankee Atomic Elec. Co.* (Yankee Nuclear Power Station), LBP-96-2, 43 NRC 61, 90, *rev'd in part on other grounds*, CLI-96-7, 43 NRC 235 (1996). The Teller letter addresses operational safety – not security. Dr. Teller's concern is "the danger that a reactor might *malfunction* and release its radioactive poison." (Emphasis added.) For this reason, this portion of the proposed contention should be rejected, for failure to provide the requisite support that a genuine dispute on a material issue exists. 10 C.F.R. § 2.309(f)(1)(vi). Cf. *Clinton ESP*, LBP-04-17, 60 NRC at 244-45; *North Anna ESP*, LBP-04-18, 60 NRC at 267-68; *Grand Gulf ESP*, LBP-04-19, 60 NRC at 292 (rejecting a similar contention raised in the context of ESP safety reviews).

Similarly, Petitioners cite to a March 1984 report, "The Second Nuclear Era," by A.M. Weinberg *et al.*, for the Institute for Energy Analysis, Oak Ridge Associated Universities ("Weinberg Report"). The report was the result of a study of the decline of the nuclear era following the accident at Three Mile Island, Unit 2, and the characteristics of a "Second Nuclear Era" that "might be instrumental in restoring nuclear power to an appropriate place in the energy options of our country." See Weinberg Report at vii. The Weinberg Report's discussion of such a "second generation" of reactor designs focused, again, on operational security. Although there is a brief discussion of protection against terrorist acts with respect to the preliminary "PIUS" reactor design, the Report states outright, "[W]e must also concede we adopted the stance that certain threats – acts of war, . . . , sabotage, acts of terrorism – are too farfetched to be considered in design standards." Weinberg Report at 12. As such, the Report does not support the proposition that a genuine dispute on a material issue exists with respect to the alternatives portion of this proposed contention.

("Georgia Power") must submit "a detailed assessment of the maximum achievable cost effective potential for energy efficiency and demand response programs in its service area [to the Georgia Public Service Commission ("GPSC") in 2007;" and (2) it lacks a "full and objective evaluation of all reasonable alternatives." Petition at 36-37.

As an initial matter, in footnote 43, Petitioners cite to a recent decision of the U.S. Court of Appeals for the Seventh Circuit, *Environmental Law & Policy Center v. NRC*, 2006 WL 3490839, at *7, for the proposition that evaluation of "supply alternatives" is premature at this time. Petitioners are correct that 10 C.F.R. §§ 52.17(a)(2) and 52.18 provide that the environmental review performed in connection with an ESP application "*need not* include an assessment of the benefits (for example, the need for power) of the proposed action." (Emphasis added.) Similarly, in 2003, the staff informed then-potential ESP applicants that the Commission had determined that an ESP applicant need not include an assessment of alternative energy sources in its ER.²⁷ However, should an applicant, as here, elect to include these assessments in its ESP application, then those assessments can, and will, be considered by the Staff at the ESP stage.²⁸

Need for Power

The first portion of this proposed contention goes, not to alternatives, but rather to the need for power. In particular, Petitioners raise several concerns associated with proceedings related to the ESP before the GPSC. They contend that the information in the ER is "premature, and necessarily incomplete" because Georgia Power's 2007 Integrated Resource

²⁷ See, e.g., Letter from J.E. Lyons, NRC, to G.A. Zinke, Entergy Nuclear, dated June 2, 2003 (ADAMS Accession No. ML031480443).

²⁸ See *Exelon Generation Co., LLC* (Early Site Permit for the Clinton ESP Site), CLI-05-29, 62 NRC 801, 806 n.24 (2005) ("[w]hen (as here) an ESP applicant chooses to address alternative energy sources and to obtain agency consideration of its alternative energy source assessment, that issue becomes material to the adjudication and is appropriate for litigation on properly grounded contentions").

Plan, to be filed with the GPSC in January 2007, will not be reviewed until later in 2007.²⁹ In a related vein, Petitioners note with disapproval that the 2004 Integrated Resource Plan did not include nuclear power as an option for meeting future demand. Petition at 37. Petitioners also complain that the target value of 2,234 MWe for a two-unit facility at Vogtle has not been reviewed by the GPSC, and that no specific proposal for building new nuclear reactors has been filed with or approved by the GPSC. *Id.* at 38.

Evaluation of the need for power is performed as part of the agency's NEPA review of the potential benefits of the proposed action and reasonable alternatives thereto.

See 10 C.F.R. § 51.45(c). However, the Petitioners' concerns listed above relate to purely economic GPSC matters that fall outside the NRC's jurisdiction.³⁰ For this reason, this portion of the proposed contention should be rejected because it is beyond the scope of the proceeding. 10 C.F.R. § 2.309(f)(1)(iii).³¹

In addition, none of these assertions challenges, with any specificity, the discussion of the ER in the area of need for power (*see generally* ER Chapter 8), and therefore Petitioners fail to demonstrate a genuine dispute with the applicant with respect to the need for power.

10 C.F.R. § 2.309(f)(1)(vi) requires that a contention include "specific references to specific portions of the application (including the applicant's environmental report . . .) that the petitioner

²⁹ As a factual matter, in ER Section 10.4.1.1, the applicant agrees that Georgia Power and the GPSC will not formally review the case for including new nuclear capacity in the GPC generation mix until GPC submits its 2007 Integrated Resource Plan.

³⁰ See Final Rule, General Requirements for Decommissioning Nuclear Facilities, 53 Fed. Reg. 24,018, 24,038 (June 27, 1988) ("The rule, and the NRC's implementation of it, does not deal with financial ratemaking issues such as rate of fund collection, procedures for fund collection, cost to ratepayers, taxation effects, equitability between early and later ratepayers, accounting procedures, ratepayer versus stockholder considerations, responsiveness to change and other similar concerns These matters are outside NRC's jurisdiction and are the responsibility of the State [public utility commissions] and [the Federal Energy Regulatory Commission].").

³¹ In a related vein, these bases for the proposed contention are irrelevant to the NRC's review of need for power, because they are not material to the findings (here, under NEPA) that the NRC must make to support the action that is involved in the proceeding. 10 C.F.R. § 2.309(f)(1)(iv).

disputes and the supporting reasons for each dispute.” Here, in contrast, Petitioners do not challenge any specific information in the ER, but rather, make unsupported assertions regarding matters before the GPSC. Although Petitioners argue that the ER is incomplete, they do not take issue with the specific information provided therein, or identify omissions from the ER. For this reason also, these assertions do not provide the basis for an admissible contention.

Alternative Energy Sources

Petitioners go on to assert, in the second part of this proposed contention, issues relating to alternative energy sources that do not constitute an admissible contention.

First, Petitioners complain that “the ER” is deficient “in that there is significant, untapped energy efficiency potential in the service territory of the applicant utilities,” citing a 2005 study by ICF Consulting.³² Petitioners state that the ICF report documents “significant under-utilization of demand side resources that are readily available.” Petition at 38. More broadly, Petitioners argue that “[t]he ER fails to present the fuller scenario and analyses for demand side options available to the Georgia utilities . . .” *Id.*

With respect to the ICF report, at least one Board has held that attaching a document in support of a contention without an explanation of its significance does not provide an adequate basis for a contention. *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-98-10, 47 NRC 288, 298-99 (1998). By its own terms, the ICF report presents ICF’s “projections of current technical and economic potential and of achievable potential for the 2005-2015 period.” See ICF Report at 1-3. The report provides the following projections:

By 2010, we project achievable potential of between 2.3% and 8.7% of electricity sales, 1.7% and 6.1% of electricity peak demand, and 1.8% and 5.5% of natural gas sales [citation

³² See “Assessment of Energy Efficiency Potential in Georgia,” dated May 5, 2005 (Chapter 3 of the study, “Estimates of Energy Efficiency Potential,” is appended to the Petition as Exhibit 5.2). The entire report is available at <<http://www.gefa.org/pdfs/assessment.pdf>>.

omitted]. The actual achieved savings within these ranges will depend on the intensity of policy intervention.

Id. And, the report draws the conclusion essentially reiterated by Petitioners: “Overall, the potential for increased energy efficiency in Georgia is large, with a wide range of associated positive impacts on the economy and the environment.” *Id.* at 6-1. However, these conclusions, standing alone, do not furnish a basis for finding fault with ER Section 9.2.1.3, “Demand Site Management,” presumably the section challenged by Petitioners (although they do not so state). Quite simply, Petitioners do not develop the contents or conclusions of the ICF report to dispute the ER analysis on demand side management programs, or, indeed, dispute the particulars of the ER in any way. Therefore, this basis cannot support the proposed contention because it fails to show a genuine dispute with the applicant.

Second, Petitioners complain that the ER does not discuss “Combined Heat & Power” (“CHP”) potential. This assertion relies on a set of slides, apparently prepared in connection with a presentation discussing CHP.³³ Citing the slides, Petitioners state only that “Georgia has the technical potential for an additional 6,445 MW of [CHP] capacity (2,615 commercial and 3,830 industrial).” Petition at 39 n.47. See “CHP Market Review,” Southeast Planning Session, given by Bruce Hedman (July 6, 2005) at 22. However, the presentation, standing alone, does not provide sufficient context or basis to support an admissible contention on this issue. A petitioner is obligated to provide the analyses and supporting evidence showing why its bases support its contention. *Georgia Inst. of Tech.* (Georgia Tech Research Reactor, Atlanta, Georgia), LBP-95-6, 41 NRC 281, 305 (1995). Petitioners do not explain the context of the presentation, where it was given or why, or how it is relevant to the Vogtle ESP matter. They do not proffer Mr. Hedman (who is listed as the presenter) as an expert witness, nor do they provide any information regarding his background or expertise in CHP matters. Furthermore,

³³ See <http://www.chpcenterse.org/pdfs/EEA-Southeast_Planning_session_7-6-05.pdf>.

the CHP presentation itself contains little to no explanatory text – indeed, the basis for the figures cited by Petitioners is entirely unclear. As it stands, the presentation is tantamount to an unsupported assertion, and cannot serve as a basis for an admissible contention. Because the Petitioners have not provided further explanation, this basis should be rejected.

Third, Petitioners complain that the Applicant’s discussion in ER Section 9.2.2.6 (“Biomass Related Fuels”) is deficient in that it fails to identify which biomass energy technologies and biomass feedstocks were analyzed. Petitioners assert that some biomass energy technologies, “particularly those utilizing gasification technologies,” and some existing biomass feedstocks, including pecan hulls, pine bark, and poultry litter “could be more cost effective and should be studied” as alternatives to new nuclear reactors. Petition at 39 n.47. Under the rules, a petitioner “must do more than submit ‘bald or conclusory’ allegation[s] of a dispute with the applicant.” *Millstone*, CLI-01-24, 54 NRC at 358. Here, however, Petitioners provide neither alleged factual basis nor expert opinion to support their unfounded assertions regarding biomass. Therefore, this portion of the proposed contention should be rejected.

Fourth, Petitioners complain that “statements” – unidentified by Petitioners – made in ER Section 9.2.2.11 (“Integrated Gasification Combined Cycle (IGCC)”) presume that the stated risks for cost-of-service utilities of new IGCC facilities are greater than the risks of building new nuclear units, whereas “an overall risk comparison has not been made available nor has it been reviewed yet by the [GPSC].” Petition at 39 n.47. Here again, the proposed contention should be rejected for lack of specificity and basis. Not only have Petitioners failed to identify the offending information in the ER, but once again have provided no analysis or reasoning to support their belief. See 10 C.F.R. § 2.309(f)(1)(vi).³⁴

³⁴ In addition, as discussed above, with respect to its GPSC assertions, this portion of the proposed contention should be rejected because such matters fall outside the NRC’s jurisdiction and are, therefore, beyond the scope of the proceeding. 10 C.F.R. § 2.309(f)(1)(iii).

Finally, Petitioners state, without elaboration, that ER Section 10.4.1.2 (“Fuel Diversity and Natural Gas Alternative”) should analyze “other baseload options including biomass and IGCC,” as opposed to discussing natural gas only. Petition at 39 n.47.³⁵ For the reasons discussed above with respect to the third and fourth bases, this statement alone constitutes an unfounded assertion, and does not form a valid basis for an admissible contention.³⁶

For all of the reasons discussed above, Proposed Contention EC 5 should be rejected.

CONCLUSION

Based on the foregoing, the Staff does not challenge the standing of Center for a Sustainable Coast, Savannah Riverkeeper, SACE, WAND, or BREDL. The Staff opposes admission of Proposed Contentions EC 1.3, EC 2, EC 3, EC 4, and EC 5. The Staff does not oppose admission of Proposed Contention EC 1.1 as it relates to the ER’s discussion of baseline aquatic ecology conditions in the Savannah River. The Staff does not oppose admission of Proposed Contention EC 1.2 as it relates to the following specific issues in the area of thermal impacts: the putative absence of scientific studies or field observations to support the conclusions regarding thermal impacts; the asserted lack of data on actual thermal plume size since commencement of operation at the existing units; the ER’s purportedly insufficient discussion of only fish species and life history stages that provide support to its conclusion that additional units will not affect fish species; and the ER’s purportedly insufficient

³⁵ In support of this argument, Petitioners cite to footnote 1 of the Petition, “discussing inadequacies of the 2004 Integrated Resource Plan.” *Id.* However, footnote 1 relates to standing issues, and therefore is unrelated to the proposed contention.

³⁶ Further, it should be noted that Petitioners refer to biomass and IGCC as “baseload options.” In Sections 9.2.2.6 and 9.2.2.11, the Applicant concluded that biomass energy and IGCC, respectively, are not reasonable alternatives for baseload power. See ER at 9.2-11 (“SNC has concluded that, due to the small scale of biomass generating plants, high cost, and lack of an obvious environmental advantage, biomass energy is not a reasonable alternative for baseload power.”), and 9.2-16 (“Because IGCC technology currently is not cost-effective and requires further research to achieve an acceptable level of reliability, an IGCC facility is not a reasonable alternative to the proposed project.”). Petitioners have not, in this proposed contention or any other, set forth any alleged facts or expert opinion to challenge these fundamental conclusions.

cumulative impact assessment based on lack of field monitoring data. In addition, the Staff does not oppose admission of Proposed Contention EC 1.2 as it relates to the ER's purportedly incomplete discussion of the impacts of liquid chemical effluent discharges to the Savannah River.

Respectfully submitted,

/signed (electronically) by/

Brooke D. Poole
Tison A. Campbell
Counsel for the NRC Staff

Dated at Rockville, Maryland
this 10th day of January, 2007

Attachment A
NRC Staff Determinations of Petitioners' Proximity to the Vogtle ESP Site

Name	Petitioner(s)	Distance¹
Susan Bloomfield	SACE	35.6 mi
David J. Matos	SACE	50.6 mi
William J. Mareska	SACE, Savannah Riverkeeper	35.6 mi
Frank Carl	Savannah Riverkeeper	39.3 mi
Mike Stacy	Savannah Riverkeeper	33.1 mi
Sam Booher	Center for a Sustainable Coast	38.8 mi
Judy Jennings	Center for a Sustainable Coast	103 mi
Karen Grainey	Center for a Sustainable Coast	108 mi
Terence Alton Dicks	WAND	30.3 mi
Judith Lorraine Stocker	WAND	36.6 mi*
Gwendolyn Walker	WAND	40.9 mi
Carey K. Barber	BREDL	29.5 mi
Audra Roper	BREDL	44.8 mi
Kia Luke	BREDL	28.4 mi
Charles W. Barber, Sr.	BREDL	29.5 mi
Mildred L. Walker	BREDL	26.7 mi
Cicero Luke	BREDL	28.5 mi
Cynthia Richardson	BREDL	29.6 mi
Shirley Coleman	BREDL	29.8 mi
Heather Oglesby	BREDL	24.9 mi
Clarence Guidry	BREDL	44.2 mi
Holice C. McClain, Sr.	BREDL	29.6 mi
Marvin McRae	BREDL	40.6 mi
Cora L. Moore	BREDL	28.6 mi
Melvin Lee Avery	BREDL	39.0 mi
Bernice Bussey	BREDL	34.5 mi
Rosalyn Conyers	BREDL	30.1 mi

1 As verified by NRC Staff with Google Maps (<http://maps.google.com>) or, as indicated by *, with Mapquest (www.mapquest.com)

** The addresses of the group members have been withheld to protect their personal privacy interests.

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))

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing "NRC STAFF ANSWER TO PETITION FOR INTERVENTION OF 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" have been served upon the following persons by Electronic Information Exchange and electronic mail this 10th day of January, 2007:

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