UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
	)	
TENNESSEE VALLEY AUTHORITY	)	Docket Nos. 50-391-OL
	)	
(Watts Barr Unit 2)	)	

NRC STAFF'S ANSWER TO PETITION TO INTERVENE AND REQUEST FOR HEARING

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August 7, 2009

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INTRODUCTION

On July 13, 2009, Petitioners Southern Alliance for Clear Energy ("SACE"), Tennessee Environmental Council ("TEC"), We the People ("WTP"), Sierra Club, and Blue Ridge Environmental Defense League ("BREDL") filed a single combined petition to intervene and hearing request for the operating license application of Watts Bar Unit 2. Pursuant to 10 C.F.R. § 2.309(h), the Staff hereby files its answer.

While the Staff does not oppose the standing of the Petitioners, the Staff opposes granting party status to the impermissibly late submission of contentions by Petitioners TEC, Sierra Club, WTP and BREDL. The Staff opposes admission of Contentions 1-7.

BACKGROUND

This proceeding involves Watts Bar Unit 2, a partially-complete reactor located near Spring City, Tennessee. On May 1, 2009, the U.S. Nuclear Regulatory Commission ("NRC") published a Notice of Opportunity for Hearing on the operating license application of Tennessee

Valley Authority ("TVA") for the Watts Bar Nuclear Plant, Unit 2.[1] Pursuant to that Notice, requests for a hearing and petitions to intervene were due by June 30, 2009. *See* 74 Fed. Reg. at 20351. Upon request, the Secretary of the Commission extended SACE's filing deadline without comment to July 14, 2009. Order (June 24, 2009) (unpublished). No other potential petitioners requested additional filing time.

On July 13, 2009, Petitioners filed a single combined petition alleging seven environmental contentions.

DISCUSSION

I. Legal Standards

A. Admissibility Requirements for Timely-Filed Contentions

The legal requirements governing the admissibility of contentions are well established, and are currently set forth in 10 C.F.R. § 2.309(f). In brief, the regulations require that a contention must satisfy the following requirements in order to be admitted:

> (f) Contentions. (1) A request for hearing or petition for leave to intervene must set forth with particularity the contentions sought to be raised. For each contention, the request or 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;

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[1] *Tennessee Valley Authority [TVA]; Notice of Receipt of Update to Application for Facility Operating License and Notice of Opportunity for Hearing for the Watts Bar Nuclear Plant, Unit 2 and Order Imposing Procedures for Access*, 74 Fed. Reg. 20,350 (May 1, 2009) ("Notice").

> (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 requestor's/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 requestor/petitioner intends to rely to support its position on the issue;
>
> (vi) . . . provide sufficient information to show that a genuine dispute exists with the applicant/licensee 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 . . . .

10 C.F.R. § 2.309(f)(1)(i) – (vi).

The purpose of the contention admissibility rule § 2.309(f)(1) is to "focus litigation on concrete issues and result in a clearer and more focused record for decision." *Calvert Cliffs 3 Nuclear Project, LLC, And Unistar Nuclear Operating Services, LLC* (Combined License Application for Calvert Cliffs Unit 3), LBP-09-04, 69 NRC __ (Mar. 24, 2009)(slip op. at 21)(*quoting Changes to Adjudicatory Process*, 69 Fed. Reg. 2182, 2202 (Jan. 14, 2004)). The Commission has written that it "should not have to expend resources to support the hearing process unless there is an issue that is appropriate for, and susceptible to, resolution in an NRC hearing." *Id.* The contention admissibility rules are strict by design. *Id.*

Conclusory assertions and speculation in pleadings are insufficient to support the admission of a contention. *See Entergy Nuclear Operations, Inc.* (Indian Point, Units 2 and 3), LBP-08-13, 68 NRC 43, 200 (2008) and cases cited therein.

Failure to comply with any of these requirements is grounds for the dismissal of a contention. *Florida Power & Light Company* (St. Lucie Nuclear Power Plant, Units 1 and 2),

LBP-08-14, 68 NRC __, (Aug. 15, 2008)(slip op.)(*citing* 69 Fed. Reg. at 2221; *see also Private Fuel Storage, LLC.* (Independent Spent Fuel Storage Installation), CLI-99-10,49 NRC 318, 325 (1999)).

Further, to be admitted, contentions must satisfy the criteria in 10 C.F.R. § 2.309(f)(2). That regulation provides as follows:

> (2) Contentions must be based on documents or other information available at the time the petition is to be filed, such as the application, supporting safety analysis report, environmental report or other supporting document filed by an applicant or licensee, or otherwise available to a petitioner. On issues arising under the National Environmental Policy Act, the petitioner shall file contentions based on the applicant's environmental report.

10 C.F.R. § 2.309(f)(2).

B. Additional Requirements for the Admission of Non-Timely and Late-Filed Contentions.

The standards governing the admissibility of contentions filed after the initial deadline for filing (*i.e.,* "late-filed contentions") are well established. In brief, the admissibility of late-filed contentions in NRC adjudicatory proceedings is governed by three regulations. These are: (a) 10 C.F.R. § 2.309(f)(2), concerning late-filed contentions, (b) 10 C.F.R. § 2.309(c), concerning non-timely contentions, and (c) 10 C.F.R. § 2.309(f)(1), establishing the general admissibility requirements for contentions. *See Amergen Energy Co., LLC* (License Renewal for Oyster Creek Nuclear Generating Station), CLI-09-07, 69 NRC__,(April 1, 2009)(slip op. at 31-32); *Entergy Nuclear Vermont Yankee, LLC, and Entergy Nuclear Operations, Inc.* (Vermont Yankee Nuclear Power Station), LBP-06-14, 63 NRC 568, 571-72 (2006).

First, a late-filed contention may be admitted as a timely new contention if it meets the requirements of 10 C.F.R. § 2.309(f)(2). Under this provision, a contention filed after the initial filing period may be admitted with leave if it meets the following requirements:

> (2) . . . The petitioner may amend those [timely filed] contentions or file new contentions if there are data or conclusions

> in the NRC draft or final environmental impact statement, environmental assessment, or any supplements relating thereto, that differ significantly from the data or conclusions in the applicant's documents. Otherwise, contentions may be amended or new contentions filed after the initial filing only with leave of the presiding officer upon a showing that –
>
> (i) The information upon which the amended or new contention is based was not previously available;
>
> (ii) The information upon which the amended or new contention is based is materially different than information previously available; and
>
> (iii) The amended or new contention has been submitted in a timely fashion based on the availability of the subsequent information.

10 C.F.R. § 2.309(f)(2).

Second, a contention that does not qualify for admission as a new contention under 10 C.F.R. § 2.309(f)(2) may be admissible under the provisions governing nontimely contentions, set forth in 10 C.F.R. § 2.309(c)(1). As stated therein, nontimely contentions "will not be entertained absent a determination by the . . . presiding officer . . . that the . . . contentions should be admitted based upon a balancing of the following factors to the extent that they apply to the particular nontimely filing:"

> (i) Good cause, if any, for the failure to file on time;
>
> (ii) The nature of the requestor's/petitioner's right under the Act to be made a party to the proceeding;
>
> (iii) The nature and extent of the requestor's/petitioner's property, financial or other interest in the proceeding;
>
> (iv) The possible effect of any order that may be entered in the proceeding on the requestor's/petitioner's interest;
>
> (v) The availability of other means whereby the requestor's/petitioner's interest will be protected;
>
> (vi) The extent to which the requestor's/ petitioner's interests will be represented by existing parties;
>
> (vii) The extent to which the requestor's/ petitioner's participation will broaden the issues or delay the proceeding; and

> (viii) The extent to which the requestor's/ petitioner's participation may reasonably be expected to assist in developing a sound record.

10 C.F.R. § 2.309(c)(1); *Oyster Creek*, CLI-09-07, 69 NRC at ___ (slip op. at 31); *Amergen Energy Co., LLC* (Oyster Creek Nuclear Generating Station)*.,* LBP-06-22, 64 NRC 229, 234 n.7 (2006). To show good cause for late filing under 10 C.F.R. § 2.309(c)(1), "a petitioner must show that the information on which the new contention is based was not *reasonably available to the public*, not merely that the *petitioner* recently found out about it." *Dominion Nuclear Connecticut, Inc.* (Millstone Power Station, Unit No. 3), CLI-09-05, 69 NRC __ (Mar. 5, 2009), (slip op. at 15); emphasis in original.

Intervenors who file late must satisfy not only the Commission's requirements to demonstrate standing (10 C.F.R. § 2.309(d)) and submit at least one admissible contention (10 C.F.R. § 2.309(f)(1)), but also the Commission's stringent requirements for untimely filings (10 C.F.R. § 2.309(c)) and late-filed contentions (10 C.F.R. § 2.309(f)(2)). *Florida Power & Light Co., FPL Energy Seabrook, LLC, FPL Energy Duane Arnold, LLC, Constellation Energy Group, Inc.* (Calvert Cliffs Nuclear Plant, Units 1 and 2; Calvert Cliffs Independent Spent Fuel Storage Installation; Nine Mile Point Nuclear Station, Units 1 and 2; R.E. Ginna Nuclear Power Plant; Turkey Point Nuclear Generating Plants, Units 3 and 4; St. Lucie Nuclear Power Plant, Units 1 and 2; Seabrook Station; Duane Arnold Energy Center), CLI-06-21, 64 NRC 30, 33 (2006) (holding that failure to comply with pleading requirements for late filings constitutes sufficient grounds for rejecting intervention and hearing requests submitted three months late).

As the Commission has recognized, the requirements governing late-filed contentions and untimely filings, set forth in 10 C.F.R. §§ 2.309(c)(2) and 2.309(f)(2), “are stringent.” *Oyster Creek*, CLI-09-07, 69 NRC at __ (slip op at 31). Further, each of the factors set forth in the regulations is required to be addressed in a requestor’s nontimely filing. *Id.* at 31-32. Indeed,

under NRC case law, a petitioner's failure to address the late-filing criteria in 10 C.F.R. § 2.309(c) or 10 C.F.R. § 2.309(f)(2) "is reason enough" to reject the proposed new contention. *Millstone*, CLI-09-05, 69 NRC at __ (slip op. at 14).

II. Standing

The Commission's general requirements for standing (10 C.F.R. § 2.309(d)) are:

> (d) Standing. (1) General requirements. A request for hearing or petition for leave to intervene must state:
>
> (i) The name, address and telephone number of the requestor or petitioner;
>
> (ii) The nature of the requestor's/petitioner's right under the Act to be made a party to the proceeding;
>
> (iii) The nature and extent of the requestor's/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 requestor's/petitioner's interest.

10 C.F.R. § 2.309

The NRC generally applies judicial concepts to standing. *Crow Butte Res., Inc.* (License Renewal for In Situ Leach Facility, Crawford, Nebraska), CLI-09-09, 69 NRC ___ (May 18, 2009)(slip op.). In a traditional judicial setting, an individual seeking standing would have to show injury-in-fact, causation, and redressability. *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 560-61 (1992).

Commission proceedings have established a "proximity presumption" whereby an individual may satisfy standing requirements by demonstrating that his or her residence or activities are within the geographical area that might be affected by an accidental release of fission products, and in proceedings involving nuclear power plants this area has been defined

as being within a 50-mile radius of such a plant. Calvert Cliffs, LBP-09-04, 69 NRC at __ (slip op. at 12-13) (rejecting a claim that the 50-mile proximity presumption should be abandoned).[2] For an operating license application, a petitioner who lives within fifty miles of the reactor site does not need to specifically address injury, causation, and redressability. See, e.g., *Florida Power & Light Co.* (St. Lucie Nuclear Power Plant, Units 1 and 2), CLI-89-21, 30 NRC 325, 329 (1989)

In cases where an association or group is asserting standing on behalf of its members, the U.S. Supreme Court has recognized that

> . . . an association has standing to bring suit on behalf of its members when: (a) its members would otherwise have standing to sue in their own right; (b) the interests it seeks to protect are germane to the organization's purpose; and (c) neither the claim asserted nor the relief requested requires the participation of individual members in the lawsuit.

Hunt v. Washington State Apple Advertising Com'n, 97 S.Ct. 2434, 2441 (U.S.N.C., 1977). The Supreme Court has also stated that whether an association has standing to invoke remedial powers on behalf of the association's members depends in substantial measure on the nature of the relief sought. *Warth v. Seldin*, 95 S.Ct. 2197, 2213 (U.S.N.Y., 1975). If the association

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[2] The Calvert Cliffs Board stated that

> . . . the "common thread" in the decisions applying the 50-mile presumption "is a recognition of the potential effects at significant distances from the facility of the accidental release of fissionable materials." The NRC's regulations also recognize that an accidental release has potential effects within a 50-mile radius of a reactor. The Commission . . . has applied its expertise and concluded that persons living within a 50-mile radius of a proposed new reactor face a realistic threat of harm if a release of radioactive material were to occur from the facility. For this reason, the Commission does not require such persons to make individual showings of injury, causation, and redressability. . . . The non-trivial increased risk constitutes injury-in-fact, is traceable to the challenged action (the NRC's licensing of a new nuclear reactor), and is likely to be redressed by a favorable decision that either denies a license or mandates compliance with legal requirements that protect the interests of the petitioners.

Id. at 12-13(footnotes omitted).

seeks a declaration, injunction, or some other form of prospective relief, it can reasonably be supposed that the remedy, if granted, will inure to the benefit of those members of the association actually injured. Id.

Similarly, any organization seeking representational standing in an NRC proceeding must also show that at least one of its members may be affected, must identify that member, and must demonstrate that the member has authorized the organization to represent him or her and to request a hearing on his or her behalf. *Consumers Energy Company, Nuclear Management Company, LLC, Entergy Nuclear Palisades, LLC, and Entergy Nuclear Operations, Inc.* (Palisades Nuclear Power Plant), CLI-07-18, 65 NRC 399, 409 (2007) and cited authority. The member seeking representation must qualify for standing in his or her own right; the interests that the representative organization seeks to protect must be germane to its own purpose; and neither the asserted claim nor the requested relief must require an individual member to participate in the organization's legal action. *Id*. The Commission requires fact-specific standing allegations, and does not accept conclusory assertions. *Id*. at 410.

A. Standing of SACE

The Petition briefly described SACE's purpose as including promoting responsible energy choices that solve global warming and ensure healthy communities. Petition at 3. Although no address was given, the Petition states that SACE is based in Knoxville, Tennesee. Id. SACE Member Sandra Kurtz asserted that she lived 42.5 miles from the plant, and that Watts Bar should not be licensed unless it can be operated safely and without significant adverse environmental impacts, and she authorizes SACE to represent her. Petition at Attachment 1 ("Kurtz Declaration").

The Staff does not oppose standing of Knoxville-based SACE, in that the criteria of *Palisades* appear to be satisfied.

B. Standing of Sierra Club

The Petition briefly describes the purposes of the Sierra Club, which include protecting the environment. Petition at 3-4. Sierra Club member Ross McCluney asserts that he lives within fifty miles of the plant, and that he is concerned about the plant operating safely and without adverse environmental impacts, and he authorizes Sierra Club to represent him. ("McCluney Declaration").

Therefore, the Staff does not oppose representational standing of the San Francisco, California-based[3] Sierra Club. However, as explained below, Sierra Club filed impermissibly late, having failed to request a time extension for its filing. Further, as explained below, Sierra Club failed to address the Commission's regulations on non-timely filing.

C. Standing of BREDL

The Petition briefly describes BREDL as a nonprofit regional environmental organization. Petition at 4. At least one BREDL member living within 50 miles from the plant asserted concerns and authorized BREDL to represent them. ("Gregg Declaration").

Therefore, the Staff does not oppose representational standing of Glendale Springs, North Carolina-based[4] BREDL. However, as explained below, BREDL filed impermissibly late,

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[3] The Petition referred in one place to "The Tennessee Chapter" of Sierra Club (Petition at 4), as did the Reynolds Declaration. However, McCluney and Reynolds authorize "Sierra Club" to represent them, and do not specify any local chapter. McCluney Declaration and Reynolds Declaration. The Petition does not give the address of Sierra Club. The Staff notes that Sierra Club is registered in Tennessee as an active business with its principal office in San Francisco, CA. *See* http://www.tennesseeanytime.org/soscorp/index.html last visited July 21, 2009 (search for "Sierra Club"). The Staff presumes the Petitioner is the entity registered with the State under the same name.

[4] The Petition does not give the address of BREDL. The Staff notes that "Blue Ridge Environmental Defense League" is registered in Tennessee as an active business with its principal office in Glendale Springs, NC. See http://www.tennesseeanytime.org/soscorp/index.html last visited July 21, 2009 (search for "Blue Ridge Environmental Defense League"). The Staff presumes the Petitioner is the entity registered with the State under the same name.

having failed to request a time extension for its filing. Further, as explained below, BREDL failed to address the Commission's regulations on non-timely filing.

D. Standing of TEC

The Petition briefly describes TEC as a Tennessee-based environmental organization. Petition at 3. At least one member living within 50 miles authorized TEC to represent them. (“Cheely Declaration”).

Therefore, the Staff does not oppose representational standing of Nashville-based TEC under its full name of "Tennessee Environmental Council, Inc."[5]

However, as explained below, TEC filed impermissibly late, having failed to request a time extension for its filing. Further, as explained below, TEC failed to address the Commission's regulations on non-timely filing.

E. Standing of WTP

Petitioners briefly describe WTP as a non-profit educational organization involved across America. Petition at 3.

The intervention petition included a declaration from a member of "We the People, Inc." who lives within 50 miles of the plant and who authorized the organization to represent her interests. (“Declaration of Standing by Ann P Harris”).

In Tennessee, "We the People, Inc." is registered with the State as the name of a for-profit corporation in an "administratively dissolved" status. *See* http://www.tennesseeanytime.org/soscorp/index.html last visited July 21, 2009 (search for "We

[5] State of Tennessee shows the registration of an organization named "Tennessee Environmental Council, Inc." with principal office in Nashville, TN. *See* http://www.tennesseeanytime.org/soscorp/index.html last visited July 21, 2009 (search for "Tennessee Environmental Council"). Although Petitioners did not include the "Inc." as part of the name of TEC, the Staff presumes the actual name of the petitioner is the name registered with the State.

the People"). There is no nonprofit corporation registered in Tennessee under that name. Thus, there is a conflict between the for-profit goal of "We the People, Inc.," as filed with the State, and the nonprofit goal described in the petition. However, the Staff discovered that Ms. Harris is listed by the Commonwealth of Massachusetts as Director of a non-profit corporation named "We the People, Inc. of the United States" organized in Massachusetts with principal offices in Tallahassee, Florida. http://corp.sec.state.ma.us/corp/corpsearch/CorpSearchSummary.asp?ReadFromDB=True&UpdateAllowed=&FEIN=222879757.[6]

Thus, the Staff does not object to the representational standing of the Tallahassee, Florida-based "We the People, Inc. of the United States" under its proper and complete name.

However, as explained below, WTP filed impermissibly late, having failed to request a time extension for its filing. Further, as explained below, WTP failed to address the Commission's regulations on non-timely filing.

III. Late-Filed Contentions

The due date for timely contentions was June 30, 2009. Upon its timely request, Petitioner SACE was granted permission to file by July 14, 2009. Order (June 24, 2009) (unpublished)(ADAMS Accession No. ML091750643). Prior to filing its motion for more time, SACE consulted with the Staff and informed the Staff that availability of experts and access to

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[6] The organization "We the People, Inc. of the United States" does not appear to be registered with the State of Tennessee, thus its ability to transact business in Tennessee may be limited. See T.C.A. § 48-65-101 (Westlaw 2009) (Providing in subsection (a) that a foreign corporation may not transact business in Tennessee until it obtains a certificate of authority from the secretary of state, but also providing in subsection (b)(1) that maintaining any proceeding, claim, or dispute is not transacting business.)

However, under the Commission's rules, the registration status of a petitioning organization is not listed as a factor in determining representational standing.

documents were the bases for SACE's two-week extension request. Only counsel for SACE entered an appearance before the Commission prior to requesting an extension. Notice Of Appearance By Diane Curran, June 16, 2009 (ADAMS Accession No. ML091671861). The extension request by SACE was limited to just SACE. Southern Alliance For Clean Energy's Request For Extension Of Time To Submit Hearing Request/Petition To Intervene, June 16, 2009 (ADAMS Accession No. ML091671862). At no time during the request for an extension did SACE's counsel state that any other petitioner was or would be seeking additional time. No reason was offered on behalf of Sierra Club, BREDL, TEC or WTP as to why they each would be unable to meet the Commission's two-month long opportunity to file.

The Secretary of the Commission, in granting SACE's request for two more weeks to file, granted more time only to SACE, Order (June 24, 2009) (unpublished). The Secretary did not grant an extension to *all* potential filers, and the Secretary did not direct that the Staff re-notice the hearing opportunity in the *Federal Register*. Therefore, for all potential parties other than SACE, the original filing deadline was unchanged, and remained June 30, 2009.

Here, Petitioners Sierra Club, BREDL, TEC, and WTP did not seek an extension in advance of the deadline, and they did not attempt to address the late-filing factors of 10 C.F.R. § 2.309(c)(2). At this point, Sierra Club, BREDL, TEC, and WTP are impermissibly late and fail to explain the lateness, and their requests should not be entertained. *Id.* at 33-34; *Boston Edison Co*. (Pilgrim Nuclear Power Station), ALAB-816, 22 NRC 461 (1985) (*affirming* denial of an experienced petitioner who filed eight days late and failed to address the late-filing requirements in the previous rule 10 C.F.R. § 2.714(a)).

IV. Proffered Contentions

A. Contention 1: Failure to List and Discuss Compliance With Required Federal Permits, Approvals and Regulations

> TVA'S FSEIS is inadequate to satisfy 10 C.F.R. §§ 51.53(b) and 51.45(d) because the document fails to list or discuss the status of its compliance with permits, approvals and environmental standards. Petitioners are aware of at least two such permits or approvals that should be but are not listed in the FSEIS, and there may be more of which Petitioners are unaware.

Petition at 6.

1. Bases for Contention 1

As a basis for their claim, the Petitioners allege two omissions in TVA's Final Environmental Impact Statement (FEIS), citing 10 CFR § 51.45(d), as the regulatory authority to support their claim. *Id*. at 6-8.

First, they argue that the Applicant fails to address its compliance with a 1991 agreement, "Interagency Agreement Watts Bar Reservoir Permit Coordination" ("Agreement"), related to the Watts Bar Reservoir between TVA and several federal and Tennessee state agencies. *Id.* at 7. To support their argument, Petitioners proffer the 1991 agreement as Attachment 2 to their Petition. *Id.*

Second, they argue that TVA failed to discuss the status of its National Pollution Discharge Elimination System ("NPDES") permit for wastewater discharges from Watts Bar plant in the Tennessee River. *Id.* at 8. In further support of the basis, the Petitioners assert that "TVA's EIS must discuss the fact that the permit is expired, and explain the status of its application for reissuance of the permit, including whether TVA is in compliance with the terms of the expired permit under which it remains bound." *Id*.

2. The Staff Opposes Admission of Contention 1

The Staff disagrees; the contention should be rejected for failure to demonstrate a genuine dispute on a material issue of law and fact.

Regarding the first claim, the Petitioners have not presented a genuine dispute on a material issue of law. Section 51.45(d) requires that the Applicant's environmental report (in this case the FEIS) list "all Federal permits, licenses, approvals and other entitlements which must be obtained in connection with the proposed action. . . " Although the Petitioners explain that the "WBN Unit 2 falls squarely within the designated geographic area to which the agreement applies," and that "TVA is undertaking at least one category of action that is listed…: fixed water intake for commercial or industrial purposes," Petitioners have not demonstrated that the 1991 agreement is a required permit, license or approval that TVA must obtain in connection with the application. *See* Petition at 8. An examination of the agreement reveals that it specifically relates "only to the issues associated with the contaminated or potentially contaminated sediments resulting from the DOE Operations at Oak Ridge, Tennessee." Agreement at 2.

Regarding the second claim, Petitioners have not demonstrated that a genuine dispute on a material issue of fact exists. TVA reported the permit and year of issuance, 2005, in the FEIS. *Id*. at 46. The Staff notes that the expiration date for the permit can be found in Chapter 6.1 ("Literature cited") of the FSEIS. FSEIS 6.1 at 124 ("*Watts Bar Nuclear Plant National Pollutant Discharge Elimination System (NPDES) Permit TN0020168.* Effective February 15, 2005, expires November 4, 2006.) Also, TVA has reported that it submitted an application for renewal of the NPDES permit in May 2006 (which appears to be in advance of the November expiration date) in the FEIS. *See* FEIS Section 3.1.2 at 46. As Petitioners themselves acknowledged, the application for renewal of the NPDES permit is currently under review by the Tennessee Department of Environment and Conservation ("TDEC") and a decision has not been issued. Petition at 8.

As for Petitioners claim that TVA should also discuss compliance with the expired permit, TVA discusses the NPDES permit and compliance with the terms in the FEIS. For

example, Section 3.1.2 contains discussions regarding TVA's compliance at various outfalls as required in its NPDES permit and plans to comply with its terms as well as steps taken to support its application for reissuance. *See* FEIS Section 3.1.2 at 46. The FEIS also reports various modifications to the NPDES permit and approvals by TDEC that were made as late as April 2007. *See* FEIS at 47.

Thus, the FEIS provides the expiration date of the NPDES permit and the status of compliance. Because of this, the Staff contends that the Petitioners fail to raise a genuine dispute on a material issue of fact that would warrant litigation; the contention should be rejected.

Last, regarding Petitioners' argument that there might be other permits "of which petitioners are unaware" (Petition at 8) fails to support admissibility because it fails to identify a concrete and genuine dispute with the FSEIS. Speculating on the possibility of other omitted permits and approvals without identifying the permits that may have been omitted by TVA does not present a genuine dispute on a material issue of fact with the FSEIS. Therefore, the contention should be rejected.

B. Contention 2: Inadequate SAMA Uncertainty Analysis

> The WBN Unit 2 Severe Accident Mitigation Alternatives Analysis ("SAMA Analysis") is inadequate to satisfy NEPA and 10 C.F.R. § 51.53(b) with respect to consideration of alternatives to mitigate the consequences of severe accidents. The SAMA's uncertainty analysis does not fully account for the sensitivity of its results with regard to uncertainties in Level 3 parameters, such as meteorological conditions and radionuclide release fractions. Full consideration of Level 3 uncertainties would have a significant impact on the cost of a severe accident and could increase the number of SAMAs that would be cost-beneficial.

Petition at 9.

1. Bases for Contention 2

Petitioners argue that TVA incorrectly states that TVA used the 95th percentile probabilistic risk assessment (PRA) results in place of the mean PRA results. *Id*. at 10 (*citing* TVA SAMA Submittal at 29-30). However, Petitioners note that elsewhere in the SAMA Submittal, TVA specifies that it used 95th percentile values of core damage frequency (CDF) (derived from a Level 1 PRA) and large early release frequency (LERF) (derived from a Level 2 PRA), and makes no claim that TVA used the 95th percentile values when determining the environmental consequences (derived from Level 3 PRA). *Id.* at 10 (*citing* TVA Submittal at Section 9.2).

Petitioners assert that the results of TVA's SAMA analysis could be significantly affected if the 95 percentile values were used in the meteorological conditions and radioactive release fractions. *See id.* at 10-12.

To support Contention 2, Petitioners proffer the July 10, 2009 declaration of Dr. Edwin S. Lyman,[7] and rely on a report prepared by Dr. Lyman to support Riverkeeper, Inc's request for a hearing in the Indian Point License Renewal Proceeding.[8] *Id*. at 9-10.

Regarding meteorological data, Petitioners assert that using 95th percentile values, instead of average values, would result in an increase in calculated consequences, and therefore increase the number of SAMAs that would be cost-beneficial. *Id*. at 11. Similarly, for radionuclide release fractions, Petitioners argue that using 95 percentile values, instead of

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[7] Petition at Attachment 3, "Declaration of Dr. Edwin S. Lyman in Support of Petitioners' Contentions" (July 10, 2009) ("Lyman Declaration").

[8] The report was not included with the Petition. However, as part of Riverkeeper, Inc.'s request for a hearing in the Indian Point License Renewal proceeding, Riverkeeper, Inc. included "A Critique of the Radiological Consequence Assessment Conducted in Support of the Indian Point Severe Accident Mitigation Alternative Analysis" (November 2007) ("Lyman Report"), as Attachment 2 to his declaration in that proceeding. The *Lyman Report* may be viewed in ADAMS as part of ML073410093.

mean values, would result in more mitigation strategies being cost beneficial. *Id*. at 11-12.

2. The Staff Opposes Admission of Contention 2

The Staff opposes admission of Contention 2 because Petitioners have failed to show that TVA's analysis of SAMAs does not meet a statutory or regulatory requirement. 10 C.F.R. 2.309(f)(1)(vi).

In their argument, Petitioners cite no regulatory requirement that mandates that TVA uses 95 percentile values. Petitioners make no showing that the method used by TVA is inadequate, nor that TVA performed its modeling incorrectly. The Petitioners do not provide a rationale for using the 95th percentile values in place of the average values.[9] The Petitioners merely point out that, by using the 95th percentile values instead of the mean values, a different result would be achieved. Petition at 12. That is an insufficient basis to formulate a valid contention. *See Duke Energy Corporation* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2) LBP-03-17, 58 NRC 221, 240 (2003).[10]

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[9] It is the Commission's policy that PRA evaluations done in support of regulatory decisions should be as realistic as practicable. *Use of Probabilistic Risk Assessment Methods in Nuclear Regulatory Activities; Final Policy Statement*, 60 Fed. Reg. 42622, 42629 (Aug. 16, 1995).

[10] In the McGuire/Catawba proceeding, the petitioners BREDL and Nuclear Information and Resource Service claimed, *inter alia*, that Duke's "SAMA analysis understates the consequences of accidents, because it relies on assumptions that are unreasonable and unsupported." *McGuire/Catawba*, LBP-03-17, 58 NRC at 238. In rejecting the proffered contention, the McGuire/Catawba Board wrote:

> The Board views this proposed contention or subpart as an attempt to challenge the use by Duke of various models used in its calculation of accident consequences. But the Intervenors have made no showing either that the models used by Duke are defective or incorrect for the purpose used or that those models were used incorrectly by Duke. Nor have the Intervenors demonstrated that the models they are recommending are superior in any way to those employed by Duke. The Intervenors merely point out that, by using their models in the manner they are recommending, a different result would be achieved. That is an insufficient basis to formulate a valid contention.

Id. at 240.

In addition, another Board found this same issue, presented by the same expert, to be inadmissible. Contention 2 is similar to a portion of Contention EC-2 submitted by Riverkeeper Inc.[11] in the ongoing Indian Point License Renewal proceeding. Contention 2 relies, in part, on the same *Lyman Report*[12] to show that using the 95th percentile meteorological data increases the calculated consequences for other plants. Petition at 11 (*citing* to *Lyman Report*). The Atomic Safety and Licensing Board assigned to rule on Riverkeeper Inc.'s petition determined the contention supported by Dr. Lyman was inadmissible. *Indian Point*, LBP-08-13, 68 NRC at 187, ("Presentation of an alternative analysis is, without more, insufficient to support a contention alleging that the original analysis failed to meet applicable requirements. The same argument applies to [a petitioner's] arguments related to meteorological variation and the dose conversion factor.")[13]

Last, the Lyman Report addressed Indian Point license renewal proceeding, not the Watts Bar initial issuance proceeding. *See* Petition at 11. The report was not included as part of the intervention petition for Watts Bar. TVA does not own or operate Indian Point. Petitioners

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[11] Riverkeeper Contention EC-2 alleged that Entergy's analysis of SAMAs in its Environmental Report fails to satisfy NEPA, 42 U.S.C. § 4321-4380f, because its analysis of the baseline of severe accidents is incomplete, inaccurate, nonconservative, and lacking in the scientific rigor required by NEPA. Riverkeeper Petition at 54.

[12] In his report, Dr. Lyman stated, "Entergy fails to consider the uncertainties in its consequence calculation resulting from meteorological variations by only using mean values for population dose and offsite economic cost estimates." Lyman Report at 4.

[13] Riverkeeper moved for reconsideration or clarification of the Board's rejection of Contention EC-2, and the Board concluded no clarification was necessary regarding uncertainties. Order (Authorizing Interested Governmental Entities to Participate in this Proceeding) (Granting in Part Riverkeeper's Motion for Clarification and Reconsideration of the Board's Ruling in LBP-08-13 Related to the Admissibility of Riverkeeper Contention EC-2) (Denying Riverkeeper's Request to Admit Amended Contention EC-2 and New Contentions EC-4 and EC-5) (Denying Entergy's Motion for Reconsideration of the Board's Decision to Admit Riverkeeper Contention EC-3 and Clearwater Contention EC-1)(Dec. 18, 2008) (unpublished) at 7 (ADAMS Accession No. ML083530749).

have made no effort to explain how the *Lyman Report* upon which they intend to rely can be applied to Watts Bar and how the weather patterns in New York (where Indian Point is located) compare with the weather patterns in Tennessee. *See* Petition at 10-11 (showing that Dr. Lyman's findings were for "plants such as Indian Point"). Accordingly, Petitioners have failed to provide references to the specific sources and documents needed to support admission of a contention. 10 C.F.R. § 2.309(f)(1)(v).

C. Contention 3: Inadequate Consideration of Severe Accident Mitigation Alternatives With Respect to AC Backup for Diesel Generators.

> The SAMA Analysis is inadequate to comply with NEPA and 10 C.F.R. § 51.53(b) with respect to consideration of severe accident mitigation alternatives ("SAMAs") because it does not provide enough information to permit a reasonable assessment of the reliability of its AC power backup option for resolution of GSI-189, "Susceptibility of Ice Condenser and Mark III Containments to Early Failure From Hydrogen Combustion During A Severe Accident." In light of the significant reliability problems already experienced at Sequoyah and WBN Unit 1 with their voluntary measures for GSI-189 mitigation, TVA should be required to conduct a Phase 2 analysis of a range of measures for ensuring the reliability of its alternate power supply, including mandatory dedication of backup diesel generators, independence of the backup power supply to the igniters from backup power to other systems, and seismic qualification.

Petition at 12-13.

1. Bases for Contention 3

In support of Contention 3, Petitioners rely on their expert Dr. Lyman. *Id*. at 13. Petitioners provide a historical perspective about NRC research, rulemaking, and licensing actions addressing the topic of hydrogen igniters.[14] *Id*. at 13-14. Petitioners note that, for Watts Bar Unit 1, TVA provided a backup power supply. *Id*. at 14. Petitioners also note that the Staff

[14] Hydrogen igniters are used to reduce the risk of a hydrogen explosion. Petition at 13.

concluded that the rulemaking may not be warranted because the benefits of rulemaking may not be substantial enough when the cost-benefit analysis accounted for voluntary licensee actions to provide alternate sources of power to the hydrogen igniters. *Id.* at 14 (discussing Memo from Luis Reyes, Executive Director of Operations, to the Commission, dated June 14, 2005, "Status Of Staff Activities To Resolve Generic Safety Issue 189, 'Susceptibility Of Ice Condenser And Mark III Containments To Early Failure From Hydrogen Combustion During A Severe Accident'" (ADAMS Accession No. ML051440875)).

Petitioners describe an inspection report for Watts Bar Unit 1, and an inspection finding for Sequoyah, addressing backup power supply procedures and recordkeeping. Petitioners assert that the inspection findings show that the voluntary actions to provide backup power supplies were not effective to address Generic Safety Issue 189. *Id.* at 15-16.

Thus, Petitioners assert that TVA must include in its SAMA analysis information to show that the backup power is effective and reliable, and TVA cannot avoid additional analysis by asserting that the alternate power supply was implemented. *Id.* at 15-16. Petitioners state that such analysis must consider mandatory dedication of the power supply, independence of the power supply, and seismic qualification. *Id.* at 16.

2. The Staff Opposes Admission of Contention 3

The Staff opposes admission of Contention 3 because it fails to meet the admissibility requirements of 10 C.F..R. 2.309(f)(2) by, *inter alia*, failing to support its claim. Petitioners assert that the Watts Bar and Sequoyah inspection reports demonstrate that it is questionable if the backup power supply is 90% reliable. Petition at 14-15. These reports are subject to scrutiny, both for what they do and do not show. *See Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), LBP-96-2, 43 NRC 61, 90 (1996) ("A document put forth by an intervenor as the basis for a contention is subject to scrutiny both for what it does and does not show."); *rev'd and remanded in part on other grounds*, CLI-96-7, 43 NRC 235.

A review of the Watts Bar inspection report shows that it does not find questionable reliability of the backup power supply. Instead, it documented the closure of NRC Temporary Instruction (TI) 2515/174, “Hydrogen Igniter Backup Power Verification,” and concluded, "No findings of significance were identified." Watts Bar Nuclear Plant - NRC Integrated Inspection Report 05000390/2008003 and 05000391/2008003 at 23.

Similarly, Petitioners misread the Sequoyah inspection report. The report does not show a continuing reliability issue with the backup power supply, but instead states that "[t]he procedure revision was properly established on May 5, 2008." Sequoyah Nuclear Plant - NRC Integrated Inspection Report 05000327/2009002 and 05000328/2009002" at 24. In other words, the inspection report documented that the licensee already fixed the potential issue with supplying power. *See id*. Further, Petitioners provide no bases for projecting the past performance at Sequoyah onto Watts Bar's request for an operating license. Thus, the Petitioners' assertions regarding reliability are incorrect, and Petitioners fail to support their position on the issue. 10 C.F.R. 2.309(f)(1)(v).

To craft an admissible contention, Petitions must show 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. 10 C.F.R. 2.309(f)(1)(iv). The inspection reports cited by the Petitioners demonstrate that the ability to meet the performance of the hydrogen igniters is addressed by the NRC through its inspection program, thus is not material to the licensing findings the staff must make. *Cf. Nuclear Power Plant License Renewal; Revisions*, 60 Fed. Reg. 22461, 22473-74 (May 8, 1995) ("The Commission does not contend that all reactors are in full compliance with their respective CLB [current licensing bases] on a continuous basis. Rather, as discussed in the SOC for the previous rule, the regulatory process provides reasonable assurance that there is compliance with the CLB. The NRC conducts its inspection and enforcement activities under the presumption that non-compliances will occur.").

In addition, Contention 3 improperly seeks to impose new requirements and rules on the topic of hydrogen igniters. This is evident because the desired outcome of the Petitioners is to reopen the cost-benefit analysis for a replacement power supply, to make the power supply mandatory, and to impose other requirements on the power supply. *See* Petition at 16. The Petitioners highlight concerns about three reactors (*i.e.* Sequoyah Units 1 and 2 and Watts Bar Unit 1) operating under the Commission's existing rules, as verified by the Commission's inspection program. However, to the extent that Petitioners seek to modify the rules, they cannot have their complaint heard here, because the Commission's rules are not subject to attack by way of argument in an adjudicatory proceeding. 10 C.F.R. § 2.335(a); but see 10 C.F.R. § 2.802 (permitting any interested person to file a petition for rulemaking).

D. Contention 4: Inadequate Discussion of Need for Power and Energy Alternatives

> The discussion of the need for power and alternatives in Sections 1.6, 2.0, and 2.6 of the FSEIS for WBN Unit 2 is inadequate to satisfy NEPA because TVA fails to demonstrate that the power which will be generated by the proposed plant is actually needed. TVA also fails to justify its rejection of less financially and environmentally costly alternatives for generating additional power or for reducing demand through energy efficiency measures.[]

Petition at 16 (footnote omitted).

1. Bases for Contention 4

In proposed Contention Four, Petitioners argue that TVA failed to discuss fully the need for power and energy alternatives. *Id.* at 16. Specifically, Petitioners argue that TVA's energy demand projections are based on outdated studies, and fail to take into account the nationwide economic crisis. *Id.* at 17-19. Petitioners further argue that TVA failed to take into account energy efficiency when forecasting its need for power, and that TVA mistakenly assumed that only nuclear or fossil fuel plants can provide baseload power. *Id*. at 19-20.

2. The Staff Opposes Admission of Contention 4

NRC regulations require petitioners to "[d]emonstrate that the issue raised in the

contention is within the scope of the proceeding." 10 C.F.R. § 2.309(f)(1)(iii). NRC regulations also require petitioners to "[d]emonstrate 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." 10 C.F.R. § 2.309(f)(1)(iv). Here, Petitioners fail to meet both of these requirements because they cannot establish that a discussion of need for power and energy alternatives is a required part of an applicant's OL environmental report — in this case, TVA's FSEIS. In essence, Petitioners are challenging the substance of the Commission's rules governing OL environmental reports. This they cannot do. *See Southern Nuclear Operating Co.* (Vogtle ESP), LBP-07-03, 65 NRC 237, 252 (2007) ("a contention that attacks a Commission rule, or which seeks to litigate a matter that is, or clearly is about to become, the subject of a rulemaking, is inadmissible."). NRC rules do not require an applicant to discuss the need for power and energy alternatives in an operating license application. In 1982, the Commission issued a final rule that amended part 51 and clarified that consideration of the need for power and energy alternatives is not a required part of the application during an OL hearing. *Need for Power and Alternatives Energy Issues in Operating License Proceedings*, 47 Fed. Reg. 12,940 (March 26, 1982). The rule specifically provides that an applicant's supplemental environment report for an OL does not need to contain a "discussion of the need for power, or of alternative energy sources." 10 C.F.R. § 51.53(b). The Commission explained that the purpose of this rule was to "avoid unnecessary consideration of issues that are not likely to tilt the cost-benefit balance." *Need for Power*, 47 Fed. Reg. at 12,940.

Section 51.53(b), therefore, means that an OL applicant does not have to consider need for power and energy alternatives in its environmental reports. Also, Part 51 does not contemplate a need for power discussion in the NRC's final supplemental environmental impact statement. *See* 10 C.F.R. § 51.95(b) ("Unless otherwise determined by the Commission, a supplement on the operation of a nuclear plant will not include a discussion of need for power,

or of alternative energy sources[.]"). A contention, therefore, that challenges an environmental report's need for power analysis is inherently out of scope since NRC rules do not require this kind of information in OL proceedings. This would render such a contention inadmissible. 10 C.F.R. § 2.309(f)(iii). Such a contention would also be immaterial to findings that the NRC must make because the NRC is not required to include a need for power discussion in its final supplemental environmental impact statement. This contention therefore fails to satisfy 10 C.F.R. § 2.309(f)((iv).

Petitioners admit that 10 C.F.R. Part 51 does not require a discussion of need for power and energy alternatives. Petition at 16 n.4. However, Petitioners state that if the Board deems the contention inadmissible, then the Petitioners will request a waiver pursuant to 10 C.F.R. § 2.335(b). Petition at 16 n.4. First, Petitioners' intent to submit a waiver offers an implicit concession that this contention is barred by rule. Otherwise, no such waiver would be necessary. Second, Petitioners have not taken any steps under 10 C.F.R. § 2.335(b)[15] to procure such a waiver. Petitioners' contention, therefore, essentially amounts to a challenge to

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[15] 10 C.F.R. § 2.335(b) states:

> A party to an adjudicatory proceeding subject to this part may petition that the application of a specified Commission rule or regulation or any provision thereof, of the type described in paragraph (a) of this section, be waived or an exception made for the particular proceeding. 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. Any other party may file a response by counter affidavit or otherwise.

10 C.F.R. § 51.53(b). This is not allowed. *See* 10 C.F.R. § 2.355 ("no rule or regulation of the Commission . . . concerning the licensing of production and utilization facilities . . . is subject to attack . . . in any adjudicatory proceeding subject to this part."). As the Appeal Board explained when considering a similar set of facts:

> The Commission has provided by rule that neither need-for-power nor financial qualifications questions are to be explored in an operating license proceeding such as the one at bar. Needless to say, *in the absence of any endeavor by intervenors to seek a waiver of, or an exception to, the operation of these rules in this proceeding*, *the Board was obliged to apply them*.

Duke Power Co. (Catawba Nuclear Stations, Units 1 and 2), ALAB-813, 22 NRC 59, 84 (1985) (emphasis added). Petitioners have not submitted a waiver request. Therefore, absent this request, 10 C.F.R. § 2.355 and *Duke Power* prohibit them from raising contentions based on TVA's need for power analysis.

Petitioners attempt to evade § 2.335's prohibition on attacking rules by arguing that TVA's FSEIS opened the door to contentions on a need for power discussion. Petition at 2 ("While these issues would otherwise be precluded from consideration by 10 C.F.R. §§ 51.53(b) and 51.95(b), TVA's own actions have opened them to challenge here."). Petitioners cite to *Southern Nuclear Operating Co.* (Vogtle ESP) to support their argument. But *Vogtle* does not help the Petitioners on these facts. In that case, Southern Nuclear Operating Company (SNC) applied for an early site permit (ESP). *Vogtle*, LBP-07-03, 65 NRC at 246. SNC's environmental report for its ESP contained a "need for power" discussion, and petitioners challenged this discussion with a proposed contention. *Id.* at 270. The Board stated that even though applicants are not required to evaluate the need for power at the ESP stage and could have deferred the need for power discussion until the COL stage, SNC "opened the door for consideration and resolution of this as issue as part of the ESP hearing process." *Id.*

Petitioners argue that TVA, like SNC, opened the door for consideration of its need for power discussion. Petition at 2. This misses the mark. *Vogtle* is distinguishable from this case

because the dynamic between ESPs and combined operating licenses (COLs) is different than the dynamic between CPs and OLs. As the Board noted, an ESP applicant can defer its need for power discussion until the COL stage. *See Vogtle*, LBP-07-03, 65 NRC at 270 n. 20. But if that applicant decides to include a need for power discussion in its ESP environmental report, then a petitioner should be able to attack that discussion during the ESP phase. Otherwise, the petitioner runs the risk of waiving challenges to the need for power discussion because the applicant could reference that discussion when submitting its COL environmental report. *See* 10 C.F.R. § 51.50(c)(1)("If the combined license application references an early site permit, then the 'Applicants Environmental Report—Combined License Stage' need not contain information or analyses submitted to the Commission in 'Applicant's Environmental Report—Early Site Permit Stage[.]'"). In this case, however, TVA already submitted its need for power discussion when it applied for a CP. Petitioners' argument does not acknowledge this critical distinction, and thus their invocation of *Vogtle* is misplaced.

Petitioners also argue that because WBN is sixty percent complete, "it is appropriate to revisit the question of need and alternatives." Petition at 17. But this statement fails to reference any rule or regulation requiring applicants to "revisit" need at the OL stage. There is a rule, however, explicitly stating that environmental reports at the OL stage do not need to discuss need for power. 10 C.F.R. § 51.53(b). And Petitioners argument that WBN is only sixty percent complete does not negate the clear language of the rule. Indeed, in the absence of any § 2.335 waiver, Petitioners' Proposed Contention 4 amounts to an impermissible challenge to NRC regulations. This contention, therefore, is inadmissible.

E. Contention 5: Inadequate Basis for Confidence In Availability of Spent Fuel Repository and Safe Means of Interim Spent Fuel Storage

> The NRC published its Proposed Waste Confidence Decision and its Proposed Spent Fuel Storage Rule on October 9, 2008. 73 Fed. Reg. 59,547 and 59, 551. Neither the Proposed Waste Confidence Decision nor the Proposed Spent Fuel Storage Rule satisfies the requirements of NEPA or the Atomic Energy Act, and

> thus do not provide adequate support for any NEPA determination in this proceeding regarding the environmental impacts of spent fuel storage or disposal. The deficiencies in the Proposed Waste Confidence Decision also fatally undermine the adequacy of the NRC's findings in Table S-3 of 10 C.F.R. § 51.51 to satisfy NEPA. Unless and until the NRC remedies the deficiencies in the proposed Waste Confidence Decision, Table S-3, and the Proposed Spent Fuel Storage Rule, the NRC has no lawful basis to issue a license for WBN Unit 2.

Petition at 22.

1. Bases for Contention 5

In proposed Contention 5, Petitioners assert that the Commission does not have a lawful basis to issue an OL for WBN Unit 2 because of deficiencies in the NRC's proposed Waste Confidence Decision[16] and proposed Waste Confidence rule.[17] *Id.* at 23. Petitioners concede that the issues raised in this contention are "generic in nature," but argue that the contention should be admitted and held in abeyance in order to avoid a premature judicial review. *Id.*

The remainder of the bases is a discussion of why the proposed update to the Commission's Waste Confidence Rule was wrong. *Id.* at 24-26.

2. The Staff Opposes Admission of Contention 5

Proposed Contention 5 is inadmissible because it challenges an ongoing, general rulemaking, is outside the scope of this proceeding, and fails to provide a concise statement of the alleged facts or expert opinions which support the requestor's/petitioner's position on the issue. *See* 10 C.F.R. § 2.309(f)(1).

Petitioners cannot challenge agency rules or ongoing rulemakings as part of an adjudicatory licensing proceeding. As the Commission explained, "[i]t has long been agency

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[16] *Waste Confidence Decision Update*, 73 Fed. Reg. 59551 (Oct. 9, 2008)

[17] *Consideration of Environmental Impacts of Temporary Storage of Spent Fuel after Cessation of Reactor Operation*, 73 Fed. Reg. 59547 (Oct. 9, 2009).

policy that Licensing Boards 'should not accept in individual license proceedings contentions which are (or are about to become) the subject of general rulemaking by the Commission.'" *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI 99-11, 49 NRC 328, 345 (1999)(*quoting Potomac Elec. Power Co.* (Douglas Point Nuclear Generating Station, Units 1 and 2), ALAB-218, 8 AEC 79, 85 (1974). The Commission further explained that the proper forum for challenging agency rules lies in the rulemaking process: "If petitioners are dissatisfied with our generic approach to the problem, their remedy lies in the rulemaking process, not in this adjudication." *Id.*

Here, Petitioners' contention amounts to a challenge to the NRC's waste confidence rule and the ongoing waste confidence rulemaking. Petitioners argue that "[t]his contention seeks to enforce, in this specific proceeding, the NRC's commitment that 'it would not continue to license reactors if it did not have reasonable confidence that the wastes can and will in due course be disposed of safely.'" Petition at 22. This ignores § 51.23's generic determination that spent fuel can be stored safely for at least 30 years beyond the licensed life of operation. Specifically, § 51.23(b) provides, "no discussion of any environmental impact of spent fuel storage . . . is required in any environmental report . . . or other analysis prepared in connection with the *issuance* or amendment *of an operating license for a nuclear power reactor under parts 50* and 54 of this chapter." 10 C.F.R. § 51.23(b)(emphasis added). Petitioners' attempt to litigate the basis for the NRC's confidence that wastes can be safely stored is, therefore, beyond the scope of this proceeding because TVA is not required to include an analysis of long-term waste storage in its FSEIS.

Contention 5 also challenges the ongoing waste confidence rulemaking. In this regard, Petitioners' Contention 5 mirrors contentions filed by BREDL, its chapter Bellefonte Efficiency and SACE in a previous adjudication involving TVA's Bellefonte Combined Operating License application for Bellefonte Units 3 and 4. The *Bellefonte* Board ruled the contention inadmissible.

Tennessee Valley Authority (Bellefonte Nuclear Power Plant Units 3 and 4) Memorandum and Order Ruling on Request to Admit New Contention (April 29, 2009)(slip op.). The Board stated, "[g]iven that the proposed update to the Commission's waste confidence decision and the proposed revision of the waste confidence rule are the subjects of an ongoing Commission policy review and an associated rulemaking, we find that [petitioners' contention] does not present a matter appropriate for adjudication before this Licensing Board." *Id.* (Slip op. at 12). One month later, another Board considered a very similar waste confidence contention filed by other intervenors in *Calvert Cliffs*. The result was the same: "[A]ssuming *arguendo* that Contention Eight was timely filed . . . it would not be admissible in this proceeding because it is an attack upon an ongoing policy review and rulemaking. . . . The proposed new contention is . . . inadmissible for the reasons stated by the *Bellefonte* Board." *Calvert Cliffs 3 Nuclear Project, LLC.* (COL for Calvert Cliffs Unit 3)(unpublished), 69 NRC ___ (June 9, 2009) (slip op. at 6-7). Petitioners do not explain what has changed since *Bellefonte* and *Calvert Cliffs* that warrants admissibility of their proposed contention. This contention, therefore, is not admissible.

Proffered Contention 5 is also inadmissible because it is outside the scope of this proceeding. Petitioners assert that "generic determinations under NEPA must be applied to individual licensing decisions and must be adequate to justify those individual decisions." Petition at 22. Petitioners cite to *Baltimore Gas & Electric*[18], and argue that licensing WBN Unit 2 without making a specific waste confidence determination violates this opinion. Petition at 22-23. But this reliance is misplaced. Instead, the Court explained:

> NEPA does not require agencies to adopt any particular internal decisionmaking structure. Here, the agency has chosen to evaluate generically the environmental impact of the fuel cycle and inform individual licensing boards,

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[18] *Baltimore Gas & Elec. Co. v. Nat. Res. Def. Council*, 462 U.S. 87 (1983).

> through the Table S-3 rule, of its evaluation. *The generic method chosen by the agency is clearly an appropriate method of conducting the "hard look" required by NEPA.* The environmental effects of much of the fuel cycle are not plant specific, for any plant, regardless of its particular attributes, will create additional wastes that must be stored in a common long-term repository.

Baltimore Gas & Electric, 462 U.S. at 100-101 (emphasis added). Thus Petitioners' argument is inherently flawed because NEPA, as interpreted in *Baltimore Gas & Electric*, does not require an individual determination of waste confidence. This contention, therefore, is outside the scope of this proceeding and is inadmissible. 10 C.F.R. § 2.309(f)(1)(iii).

As for Petitioners' request that the contention be admitted and held in abeyance (Petition at 23), the *Calvert Cliffs* Board already considered and rejected such an argument. The Board explained, "we know of no legal basis upon which to admit an otherwise inadmissible contention in order to avoid an intervenor's perceived need to file such an appeal." Slip op. at 7.

Finally, this contention fails to provide a concise statement of the alleged facts or expert opinions which support the requestor's/petitioner's position on the issue provide sufficient information to show that a genuine dispute exists with the applicant/licensee on a material issue of law or fact. *See* 10 C.F.R. § 2.309(f)(1)(v). Petitioners explicitly state that expert declarations by Dr. Arjun Makhjijani and Dr. Gordon Thompson provide the basis for this contention. Petition at 22. Petitioners, however, failed to include in its Petition any declaration from Dr. Thompson. Although they did include Dr. Makhijiani's declaration, he focuses exclusively on TVA's need for power and energy alternatives discussion, and makes no mention of waste confidence. *Id.* at Attachment 5. Petitioners, therefore, have neither provided, nor referenced, any expert opinion supporting its waste confidence contention. This also renders proposed contention 5 inadmissible. 10 C.F.R. § 2.309(f)(1)(v).

F. Contention 6: TVA's EIS Fails To Satisfy The Requirements Of NEPA Because It Does Not Contain An Adequate Analysis Of The Environmental Effects Of The Impact Of A Large, Commercial Aircraft Into The Watts Bar Nuclear Power Plant

NEPA and NRC regulations require TVA to include in its EIS an analysis of

> "reasonably foreseeable" impacts which have "catastrophic consequences, even if their probability of occurrence is low." 40 C.F.R. § 1502.22(b)(1). An aircraft attack on WBN is a reasonably foreseeable event with potentially catastrophic consequences. TVA's discussion and analysis of the impacts of such an event, however, falls woefully short of what is required by NEPA and, therefore, must be revisited.

Petition at 27.

1. Bases for Contention 6

In proposed Contention 6, Petitioners argue that TVA's discussion of a potential aircraft attack is flawed. *Id.* at 27. Petitioners recognize that NEPA only requires an analysis of "reasonably foreseeable" impacts, and argue recent NRC rulemakings demonstrate that an aircraft impact is reasonably foreseeable. *Id.* Petitioners specifically point to the Power Reactor Security Rule[19] and Aircraft Impact Rule[20] as evidence that the NRC believes aircraft impacts are reasonably foreseeable. *Id.* at 27-29. Petitioners also cite to *San Luis Obispo Mothers for Peace v. NRC*[21] to support their contention. Petition at 31.

2. The Staff Opposes Admission of Contention 6

The Petitioners present Contention 6 as a NEPA-terrorism contention concerning an aircraft attack.[22] Petitioners cite to a Ninth Circuit opinion to support their view that NEPA, as a general matter, requires a discussion of the environmental impacts of a terrorist act. Petition at 31 (citing to *San Luis Obispo Mothers for Peace v. NRC*, 449 F.3d 1016 (9th Cir. 2006)

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[19] *Power Reactor Security Requirements*, 74 Fed. Reg. 13,926 (March 27, 2009).

[20] *Consideration of Aircraft Impacts for New Nuclear Power Reactors*, 74 Fed. Reg. 28,112 (June 12, 2009).

[21] *San Luis Obispo Mothers for Peace v. NRC*, 449 F.3d 1016 (9th Cir. 2006).

[22] Petitioners say, "no doubt that the impacts of an aircraft *attack*…" Petition at 29; *see also* Petition at 27 ("An aircraft *attack* on WBN…) (emphasis added)). This indicates that the Contention is limited to malevolent acts, and does not cover accidental aircraft crashes.

(*SLOMFP)*.

Petitioners, however, do not address or acknowledge that after *SLOMFP,* the Commission has reiterated its belief that NEPA does not require consideration of terrorism. *See Amergen Energy Co.* (License Renewal for Oyster Creek), CLI-07-08, 65 NRC 124, 129 (2007) ("Terrorism contentions are, by their very nature, directly related to security'. . . Moreover, as a general matter, NEPA imposes no legal duty on the NRC to consider intentional malevolent acts." (internal quotations and citations omitted)). Furthermore, the United States Court of Appeals for the Third Circuit recently upheld the Commission's view of NEPA on appeal. *NJ Dep't of Envt'l Protection v. NRC*, 561 F.3d 132 (3d Cir. 2009). The court explained, "NRC's lack of control over airspace supports our holding that a terrorist attack lengthens the causal chain beyond the 'reasonably close casual relationship' required by those cases.[23]" *Id.* at 140. The court also expressed its disagreement with the Ninth Circuit's *SLOMPF* decision. *Id.* at 143.

Boards are required to follow Commission decisions that NEPA-terrorism contentions are inadmissible unless the proposed licensing action occurs within the Ninth Circuit's jurisdiction. As the *Shearon Harris* Board recently explained: "Because the Supreme Court has neither endorsed nor rejected the reasoning of the Ninth Circuit, and because the [proposed licensing action] is located outside the jurisdiction of the Ninth Circuit, we are bound by the Commission's decision in *Oyster Creek*[.]" *Carolina Power & Light Co.* (Shearon Harris Nuclear Power Plant, Unit 1), LBP 07-11, 65 NRC 41, 87 (2007). Although *Oyster Creek* and *Shearon*

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[23] The Third Circuit cited to the Supreme Courts' *Department of Transportation v. Public Citizen,* 541 U.S. 752 (2004), and *Metro. Edison Co. v. People Against Nuclear Energy*, 460 U.S. 766 (1983). The Court explained in *Metro. Edison* that NEPA attaches only when there is a "reasonably close relationship between a change in the physical environment and the effect at issue." *Id.* at 773. *Public Citizen* refined this test.

Harris involved license renewals, the same rationale applies to an OL hearing. The Commission was clear in *Oyster Creek* that its holding was not limited to license renewal cases. *Oyster Creek*, NRC at 129 ("Moreover, *as a general matter*, NEPA 'imposes no legal duty on the NRC to consider intentional malevolent acts[.]" (emphasis added)). This confirms that Boards have consistently held that NEPA-terrorism contentions in other types of proceedings are inadmissible. *See, e.g.*, *Crow Butte Resources, Inc.* (License Amendment for the North Trend Expansion Project), LBP-08-6, 67 NRC __ (Apr. 29, 2008)(slip op. at 114) (finding a NEPA-terrorism contention inadmissible); *Vogtle,* LBP-07-03, 65 NRC 237, 269 (2007) (finding a NEPA-terrorism contention inadmissible because it was outside the scope of the proceeding and because it failed to present a dispute regarding a material issue of law or fact inadmissible). This case is no different, and proposed Contention 6 should not be admitted.

Petitioners seek support for their NEPA-terrorism contention in recent NRC rulemaking related to security. Petition at 27-29. Specifically, Petitioners rely upon the Power Reactor Security Rule and Aircraft Impact Rule to support its claim that aircraft impacts are reasonably foreseeable. *Id.*

At the outset, it is important to underscore the distinction between security rules implemented under the AEA and NEPA requirements. In *Oyster Creek*, the Commission explained:

> New Jersey apparently believes that the NRC's ongoing attention to protecting nuclear facilities against terrorism equates to an obligation to perform a site-specific NEPA-terrorism review. . . . This is not so. *The NRC's decision to use its Atomic Energy Act authority to require all of its power reactor licensees to take precautionary measures against improbable, but potentially destructive, terrorist attacks does not compel the agency to analyze the consequences of successful attacks at particular sites under NEPA*.

Amergen Energy Co., LLC (License Renewal for Oyster Creek), CLI-07-08, 65 NRC 124, 131 n. 31 (2007) (emphasis added). Petitioners, like New Jersey in *Oyster Creek*, mistakenly conflate security rules issued under the Atomic Energy Act with NEPA's reasonably foreseeable test.

These two rulemakings are distinct from NEPA, and the Board should maintain this distinction. *See, e.g.*, *Ground Zero Center for Non-Violent Action v. Dep't of the Navy*, 383 F.3d 1082, 1090-91 (9th Cir. 2004) (explaining that the fact that the Navy took a potential missile accident into account when planning a base layout did not necessarily mean it was required to discuss the environmental impacts of such an accident under NEPA).

Petitioners cite to the Power Reactor Security Rule, primarily focusing upon section 50.54(hh). Petition at 27-28. That section reads, "Each licensee shall develop, implement, and maintain procedures that describe how the licensee will address the following areas if the licensee is notified of a potential aircraft threat." 74 Fed. Reg. at 13969. But this language contains no indication of the likelihood of an aircraft impact. Likewise, the statement of considerations for this rule does not address the likelihood of an aircraft impact. It is unreasonable, therefore, to use § 50.54(hh) as support for the claim, "[t]here is no doubt that the impacts of an aircraft attack on a nuclear plant are reasonably foreseeable." Petition at 29. The Power Reactor Security Rule was just that—a *security* rule. Petitioners' attempt to infuse NEPA significance into the rule is contrary to the Commission's *Oyster Creek* decision. *Oyster Creek,* CLI-07-08, 65 NRC at 131 n. 31.

Petitioners also cite to the recently issued Aircraft Impact Rule. Petition at 28-29. The Aircraft Impact Rule, however, provides, "The Commission has determined that the impact of a large, commercial aircraft is a beyond-design-basis event[.]" 74 Fed. Reg. 28112. And the Commission has noted, "Credible accidents are therefore generally called 'design basis events' or 'design basis accidents,' *and events too improbable to be considered credible* are called 'beyond design basis' events." *Private Fuel Storage, LLC* (Independent Spent Fuel Storage Installation), CLI-01-22, 54 NRC 225, 259 (2001); *see also Public Citizen v. NRC*, No. 07-71868, slip. op. 9615, 9632 (9th Cir. 2009) (holding that the NRC did not "act arbitrarily nor capriciously in concluding that air-based threats were beyond the scope of the DBT rule."). The

Aircraft Impact Rule, therefore, not only fails to support Petitioners' contention, but rather expresses the Commission's intent that aircraft impacts for NEPA purposes are *not reasonably foreseeable*. This contention, therefore, is inadmissible.

G. Contention 7: Inadequate Consideration of Aquatic Impacts

> TVA claims that the cumulative impacts of WBN Unit 2 on aquatic ecology will be insignificant (FSEIS Table S-1 at page. S-2, and Table 2-1 at page. 30). TVA's conclusion is not reasonable or adequately supported, and therefore it fails to satisfy 10 C.F.R. § 51.53(b) and NEPA. TVA's discussion of aquatic impacts is deficient in three key respects. First; TVA mischaracterizes the current health of the ecosystem as good, and therefore fails to evaluate the impacts of WBN2 in light of the fragility of the host environment. Second, TVA relies on outdated and inadequate data to predict thermal impacts and the impacts of entrainment and impingement of aquatic organisms in the plant's cooling system. Third, TVA fails completely to analyze the cumulative effects of WBN2 when taken together with the impacts of other industrial facilities and the effects of the many dams on the Tennessee River.

Petition at 31-32.

The contention is presented as three parts, and each part is described and addressed in the Staff response below. The Staff opposes admission of Contention 7, and in particular the Petitioners' underlying basis as described below.

1. NEPA Contentions and Need for Data

A similar contention was recently addressed in *Tennessee Valley Authority* (Bellefonte Nuclear Power Plant, Units 3 and 4), LBP-08-16, 68 NRC 361 (2008). The Petitioners in *Bellefonte* relied on the same expert, Dr. Young, although the Board did not consider Dr. Young's declaration because it was impermissibly late. *Id.* at 399-400. However, the *Bellefonte* Board rejected portions of the contention that asserted site-specific studies were needed, writing:

> Looking to the substance of the contention, to the degree it seeks in subparts (1), (4), and (6) a Board affirmation that applicant TVA

> must include site-specific studies in support of its ER, we are unwilling to provide such a ruling. As the Licensing Board in the Vogtle early site permit (ESP) proceeding recently observed:
>
> > [I]n support of their argument the ER is deficient because of its lack of site-specific studies, Joint Petitioners have not demonstrated with any references -- nor are we aware of any -- that suggest site specific studies are generally required. Rather the appropriate scope of the baseline for a project is a functional concept: an applicant must provide enough information and in sufficient detail to allow for an evaluation of important impacts.
>
> *Vogtle*, LBP-07-3, 65 NRC at 257.

Id. at 400.

The *Bellefonte* board divided the contention into nine subtopics, only two of which it admitted: First, the ER fails to assess the impacts of Bellefonte facility operations on aquatic resources in the area given the thirty percent-plus decline in local species since 1994 identified in the ER. Second, the ER fails to identify and consider the direct impacts of the proposed intake structure on fish and mussels by estimating the structure's impingement/entrainment mortality level, instead relying improperly on the structure's compliance with Clean Water Act section 316(b), 40 U.S.C. § 1326(b) and the implementing EPA performance standards in 40 C.F.R. § 125.94. However, as described below, facts in the instant case are distinguishable, and do not support admission of Contention 7.

2. The Staff Opposes The First Basis for Contention 7

The first bases regarded TVA's mischaracterized of the current health of the ecosystem as good, and thus did not perform a sufficient review. See Petition at 31-32. In

particular, the Petitioners' expert objects to TVA finding the quality of the fish community near Watts Bar to be "Good" (FSEIS at 55 (citing to Appendix C, Tables C-2 and C-3)).[24] Young Declaration at III.C.2-3, 11. Appendix C of the FSEIS is "Aquatic Ecology Supporting Information."

Table C-2 of Appendix C is, "Scoring Results for the 12 Metrics and Overall Reservoir Fish Assemblage Index for Chickamauga Reservoir, 2005." Table C-2 tabulates data from fish collections (electro fishing and gill netting) on species richness and composition, trophic composition (i.e. percent top carnivore and percent omnivore), and fish abundance and health (i.e. average number per run, and percent anomalies). From these data, TVA calculates an "RFAI" which is a raw number, and TVA assigns an adjective to describe the result (e.g. in Table C-2, the RFAI received a rating of "Good" while an RFAI of 39 received a rating of "Fair"). Table C-3 of Appendix C is "Recent (1993-2005) RFAI Scores Developed Using the RFAI Metrics Upstream and Downstream of Watts Bar Nuclear Plant," and, as shown in its title, also provided calculated RFAIs.[25]

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[24] In context, TVA uses the term "Good" as follows:

> TVA began a program to systematically monitor the ecological conditions of its reservoirs in 1990, though no samples were taken on the Watts Bar or Chickamauga Reservoirs until 1993. Previously, reservoir studies had been confined to assessments to meet specific needs as they arose. Reservoir (and stream) monitoring programs were combined with TVA's fish tissue and bacteriological studies to form an integrated Vital Signs Monitoring Program. Part of the monitoring consisted of the reservoir fish assemblage index (RFAI), a method of assessing the quality of the fish community. Since the institution of the Vital Signs Monitoring Program; the quality of the fish community in the vicinity of the WBN site has remained relatively constant with an average rating of "good" (see Appendix C, Tables C-2 and C-3).

FSEIS at 55.

[25] The Petitioners and their expert Dr. Young do not discuss the relationship between RFAI and the "Good" or "Fair." In the FSEIS, TVA does not directly discuss the details of the RFAI, but instead (continued. . .)

Although Petitioners have objected to the use of the term "Good" (Petition at 32-33) to describe the health, they have not addressed why the underlying RFAI methodology is incorrect, or shown an error applying the technique. More significantly, they have not shown that TVA used the RFAI index as a decision point to perform, or not to perform, an environmental analysis.

Similarly, where Petitioners imply that TVA erred in assessing mussel health as "excellent" (Petition at 33), Petitioners fail to acknowledge that in Table C-4 "Individual Metric Ratings and the Overall Benthic Community Index Scores for Watts Bar Forebay and Sites Downstream of Watts Bar Nuclear Plant, Watts Bar and Chickamauga Reservoirs, November 2005" TVA made three findings based on a "Benthic Score Index" for different locations: "15 Poor," 31 "Excellent" and "29 Good." Thus it is a misreading of the Table to state that TVA gave the mussel population an excellent rating. Petitioners do not dispute the concept of the benthic index, nor do they allege that TVA's collection techniques or calculations were wrong.[26]

Furthermore, the Staff submits that Petitioners have not shown what steps or characterization failed to occur as a result of TVA's RFAI and benthic index measurements. But

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(. . .continued)

indicates the RFAI comes from TVA's combined reservoir, stream, fish tissue and bacteriological studies. FSEIS at 55. However, other submittals from TVA, it appears that TVA assigns descriptive language based on RFAI scores. See e.g., Biological Monitoring of the Tennessee River Near Watts Bar Nuclear Plant Discharge 2004, at Figure 3, "Annual Watts Bar Reservoir RFAI scores for sample years between 1993 and 2004," (showing scores of 22-31 as "Poor," 32-40 as "Fair," 41-50 as "Good," and 51-60 as "Excellent.") (ML063560378). The index is used in other submittals to the NRC. See e.g. ML090340105 (regarding Sequoyah nuclear plant).

[26] It appears that Petitioners' expert also misreads Table C-3 of the FSEIS by stating that it "shows a steadily declining RFAI score between 1993 and 2005, from 52 to 42, in the area downstream of WBN1 and 2." Young Declaration at ¶ III.C.3 (citing FSEIS at 151). In fact, a review of the table shows that the 1999 downstream score was 42, the 2000 score increased to 44, and the 2001 score increased further to 46. FSEIS at Table C-3 p. 151. TVA reported the average score to be 46. Thus it is not a steadily declining RFAI score.

where Petitioners claim that TVA omitted some review or step (Petition at 33) Petitioners fail to state what was missing.[27]

The failure to provide a direct dispute with the applicant's information, or to identify an omission of a relevant matter required by law precludes admission of the contention. 10 C.F.R. 2.309(f)(1)(vi).

3. The Staff Opposes The Second Basis for Contention 7

Basis 2 does not support admission. Petitioners argue that, "TVA relies on outdated and inadequate data to predict the effects of WBN Unit 2's cooling system on fish, mussels, and other aquatic organisms." Petition at 33. Essentially, Petitioners seek new or additional data collections, and assert that TVA's understanding and conclusions are unsupported due to TVA's decision not to make new data collections. See e.g. *id.* at 34. A contention cannot be admitted if the contention merely seeks more site specific data. See *Bellefonte*, LBP-08-16, 68 NRC at 400. Further, regarding the date of the studies, the U.S. District Court for D.C. recently noted that NEPA does not require agencies to make new information collections:

> As our Circuit Court found in deciding a similar issue, while it is "desirable ... for agencies to use the most current and comprehensive data available when making decisions," an agency's reliance on outdated data is not arbitrary or capricious, "particularly given the many months required to conduct full [analysis] with the new data." *Id.*; *see also W. Coal Traffic League v. ICC,* 735 F.2d 1408, 1411 (D.C.Cir.1984) (noting, in a case involving a different regulation, that "[w]hile the legislature did require the [agency] to revisit the standards periodically with a view to revision, it did not command the [agency] to behave like Penelope, unravelling each day's work to start the web again the next day"); *Winthrop v. FAA,* 535 F.3d 1, 10 (1st Cir.2008) (noting that the agency "adequately considered the continuing validity of the [then-outdated] data

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[27] Further, where Petitioners' Expert asserts that TVA failed to evaluate "to any meaningful degree" the impact of the WBN1 cooling system (Young Declaration at III.C.10), the expert simply fails to address and dispute the contents of TVA's environmental documents in which TVA claimed to perform such evaluations like, for example the TVA Environmental Assessment, Watts Bar Nuclear Plant Supplemental Condenser Cooling Withdrawal (1998) ("TVA EA for SCCW").

> underlying the FEIS" and that "its determination that the data were still adequate, accurate, current, and valid was not arbitrary and capricious").

Theodore Roosevelt Conservation Partnership v. Salazar, 605 F.Supp. 2d 263, 273 (D.D.C. 2009).

Here, Petitioners have not argued nor have they provided factual or expert analysis as to *why* TVA could have reached better (or different) conclusions with new information. Petitioners must show that TVA's use of the data led to a flawed assessment of environmental consequences, and cannot simply argue that TVA *could* have collected more information. *See Winthrop v. FAA,* 535 F.3d 1, 10 (1st Cir 2008) (noting that the agency "adequately considered the continuing validity of the [then-outdated] data underlying the FEIS"). As Petitioners did not show that TVA's use of the data led to a flawed assessment, Petitioners have not met the admissibility requirements of 2.309(f)(1).

For example, Petitioners state that TVA should not have extrapolated the previously-collected data, but fail to explain why extrapolation was impermissible, or why it provided incorrect results. Petition at 34. Petitioners further state that TVA made a *potentially* erroneous assumption of uniform distribution of ichthyoplankton. Petition at 34; Young Declaration at ¶ III.D.11 (citing Table C.16 of NRC's 1978 FEIS). Dr. Young states that he cannot verify if the assumption is correct. Young Declaration at ¶ III.D.11. Dr. Young hypothesizes how a non-uniform distribution could be fit to Table C.16. Young Declaration at ¶ III.D.12. Dr. Young concludes that TVA should take more entrainment data during Unit 1 operations.

Petitioners, through their expert Dr. Young, do not show that TVA used its data incorrectly, nor that using a non-uniform assumption would have led TVA to a materially-different result. It is insufficient to support a contention by simply alleging that more site-specific data are needed. See *Bellefonte*, LBP-08-16, 68 NRC at 400

Petitioners believe the information collected was insufficient to support a conclusion of

no significant impact for impingement. Petition at 35. However, Petitioners do not state that they disagree with the conclusion. *See id.* They point to no error or misuse of data by TVA. *Id.* Again, speculation is insufficient for admission; there must be some supporting concrete fact under the Commission's rules.

Last, Petitioners assert that TVA ignored various aspects such as temporal distribution of ichthyoplankton, thermal plume core temperature and the effects of temperature on eggs. Petition at 35-36. In making these claims, it does not appear that Petitioners considered the available information. For example, in TVA's June 2007 Final Supplemental Environmental Impact Statement for Completion and Operation of Watts Bar Nuclear Plant Unit 2, Appendix A "Summary of Previous Hydrothermal Impact Studies," TVA lists the following ten different studies that address thermal impact on the river system, including, for example, the 1993 Discharge Temperature Limit Evaluation for Watts Bar Nuclear Plant, the 1997 Verification Studies of Thermal Discharge for Watts Bar Nuclear Plant, the 1998 Supplemental Condenser Cooling Water Project Environmental Assessment (EA) [("1998 SCCW EA")], and the July 1999 Verification Study of Thermal Discharge for Watts Bar Nuclear Plant Supplemental Condenser Cooling Water System. June 2007 FSEIS at Appendix A, 133-134. The FSEIS provides summaries of these documents. *Id*. Within the 1998 SCCW EA, which was summarized in the June 2007 FSEIS, TVA directly addresses, for example, the effect of temperature on various species of fish. 1998 SCCW EA, § 3.3.3.3 "Fisheries - Thermal Impacts", p. 36-39. Dr. Young states he reviewed this document. Young Declaration at ¶ II.1. Therefore, it appears that Petitioners are seeking more site-specific data, which does not support admission of the contention. Petitioners have not shown how the data used by TVA was incorrect.

4. The Staff Opposes the Third Basis for Contention 7

The third basis for Contention 7 asserts that the cumulative impact analysis in TVA's FEIS was inadequate for failing to consider both the local environment and the entire

Tennessee River "continuum." Petition at 36. Petitioners' expert asserts that each river segment is different, and various disruptions exist in the river. *Id.*

A Board recently considered, and ruled inadmissible, a similar contention that asserted a failure of an applicant to consider the overall synergistic effect of a reactor on the Chesapeake Bay when considered with other existing and planned facilities. *Calvert Cliffs Unit 3*, LBP-09-04, 69 NRC at __ (slip op. 34-43) (Contention #3). The *Calvert Cliffs* Board observed:

> [I]t would be inconsistent with NEPA's rule of reason to require that the cumulative impacts analysis individually analyze the effects of remote facilities absent a demonstration that such additional effort would lead to a different conclusion.

Id. at 42 (footnote omitted).

In rejecting the proffered *Calvert Cliffs* Contention 3, the Board stated,

> A "bald assertion that a matter ought to be considered or that a factual dispute exists . . . is not sufficient"; rather, "a petitioner must provide documents or other factual information or expert opinion that set forth the necessary technical analysis to show why the proffered bases support its contention."

Id. at 42-43 (footnote omitted).

An issue in *Calvert Cliffs* was the synergistic effect of facilities some of which were over 100 miles distant. The Board, in rejecting this contention, noted that no evidence was before them to suggest a missed synergistic effect from the proposed facilities, and thus the contention failed under 2.309(f)(1)(v) for lack of support. *Id.* at 43.

The Tennessee River is a long body of water that runs through several states. Therefore, this case may be applied to Watts Bar. Petitioners have presented no specific information of any unconsidered cumulative effect. Petitioners only offer the bald assertion that what was considered was not sufficient. Thus, this basis for contention 7 is inadmissible for failing to meet 10 C.F.R. 2.309(f)(1)(v) (requiring a contention to include specific information and support). *C.f. Calvert Cliffs*, LBP-09-04, 69 NRC at __ (slip op. at 43)..

TVA's 2007 FEIS Supplement addresses cumulative impacts in several locations. E.g. 2007 FEIS Supplement at 4,8, 28, 29, 33, 45, 46, 68. Petitioners do not directly state what portion of the TVA's review of cumulative impacts[28] they dispute, thus fail to craft an admissible contention by failing to identify an error in the application.

Petitioners assert that removing the existing disruptions and industrial facilities is needed in order to restore the river to its natural state, and that the same actions are needed to halt the current decline of the river. See Petition at 36. The *actions* requested by Petitioners are not part of the review performed pursuant to NEPA, which is limited to inquiry, not action. *Tennessee Valley Authority v. Hill* 437 U.S. 153, 188 n. 34 (1978) (contrasting NEPA with the Endangered Species Act of 1973, and noting that "NEPA essentially imposes a procedural requirement on agencies, requiring them to engage in an extensive inquiry as to the effect of federal actions on the environment; by way of contrast, the 1973 Act is substantive in effect, designed to prevent the loss of any endangered species, regardless of the cost.")

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[28] TVA asserts they considered cumulative impacts. For example, they wrote,

> The reviews by TVA (1993a) and the U.S. Nuclear Regulatory Commission (NRC) (1995a) hereafter referred to as the 1995 NRC FES, updated existing environmental information at that time. Some modifications to plant design and operations have occurred since that time. This document summarizes the environmental effects assessed in past WBN-related environmental reviews and assesses the potential for new or additional effects that could result from the completion and operation of Unit 2. Table S-1 summarizes the potential for additional direct, indirect, and cumulative environmental effects.

2007 FEIS Supplement at Summary S-2.

SUMMARY

Only SACE timely filed a request for hearing and contentions and appears to have standing. The other Petitioners did not timely file their contentions. Nonetheless, the Staff opposes admission of all proffered contentions for the reasons described above.

Signed (electronically) by

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE BOARD

In the Matter of	)	
	)	
TENNESSEE VALLEY AUTHORITY	)	Docket No. 50-391-OL
	)	
(Watts Bar Unit 2)	)	

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing "NRC STAFF'S ANSWER TO PETITION TO INTERVENE AND REQUEST FOR HEARING", dated August 7, 2009, have been served upon the following by the Electronic Information Exchange, this 7th day of August, 2009:

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