

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of )  
)  
)  
FLORIDA POWER AND LIGHT COMPANY ) Docket Nos. 52-040 & 52-041  
)  
)  
(Turkey Point Nuclear Plant, Units 6 & 7) )

---

NRC STAFF'S ANSWER TO "CITIZENS ALLIED FOR SAFE ENERGY, INC.  
PETITION TO INTERVENE AND REQUEST FOR A HEARING"

---

Patrick A. Moulding  
Sarah W. Price  
Russell E. Chazell  
Counsel for the NRC Staff

September 13, 2010

## TABLE OF CONTENTS

	<u>Page</u>
INTRODUCTION .....	1
BACKGROUND .....	1
DISCUSSION.....	3
I.    LEGAL STANDARDS .....	3
A.    Standing to Intervene .....	3
B.    Legal Requirements for Contentions .....	6
II.   CASE HAS ESTABLISHED STANDING.....	10
III.  CONTENTIONS .....	12
A.    PROPOSED CONTENTION 1 .....	12
B.    PROPOSED CONTENTION 2 .....	23
C.    PROPOSED CONTENTION 3 .....	33
D.    PROPOSED CONTENTION 4 .....	38
E.    PROPOSED CONTENTION 5 .....	41
F.    PROPOSED CONTENTIONS 6 AND 7 .....	47
1.    PROPOSED CONTENTION 6.....	49
2.    PROPOSED CONTENTION 7.....	58
G.    PROPOSED CONTENTION 8 .....	72
CONCLUSION .....	75

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of )  
 )  
 )  
FLORIDA POWER AND LIGHT COMPANY ) Docket Nos. 52-040 & 52-041  
 )  
 )  
(Turkey Point Nuclear Plant, Units 6 & 7) )

NRC STAFF'S ANSWER TO "CITIZENS ALLIED FOR SAFE ENERGY, INC.  
PETITION TO INTERVENE AND REQUEST FOR A HEARING"

INTRODUCTION

Pursuant to 10 C.F.R. § 2.309(h)(1), the staff of the U.S. Nuclear Regulatory Commission (Staff) hereby answers the "Citizens Allied For Safe Energy, Inc. Petition To Intervene And Request For A Hearing." ("Amended Petition"). The Staff agrees that Citizens Allied For Safe Energy, Inc. ("CASE") has presented information sufficient to support its standing in this proceeding. The Staff also agrees that CASE has proffered at least one admissible contention. Therefore, the Staff submits that the Amended Petition should be granted.

BACKGROUND

On June 30, 2009, Florida Power and Light Company ("Applicant"), pursuant to the Atomic Energy Act of 1954, as amended (AEA) and the Commission's regulations, submitted an application for combined licenses (COL) for two AP1000 Pressurized Water Reactors (PWRs) to be located adjacent to the existing Turkey Point Units 1 through 5, at the Turkey Point site near Homestead, Florida ("Application"). See Letter from Mano K. Nazar, Florida Power & Light, to Michael Johnson, NRC Office of New Reactors, dated June 30, 2009 (ADAMS Accession No. ML091830589). The Application references the standard design certification (DCD) issued to Westinghouse Electric

Company, as amended, including Revisions 16 and 17. The proposed units would be known as Turkey Point, Units 6 & 7.

On August 3, 2009, the Staff published a notice of the receipt and availability of the Application in the *Federal Register*. 74 Fed. Reg. 38,477 (Aug. 3, 2009). The Application was accepted for docketing on September 4, 2009. 74 Fed. Reg. 51,621 (Oct. 7, 2009). On June 18, 2010, the NRC published a Notice of Hearing and Opportunity to Petition for Leave to Intervene, which provided members of the public sixty days from the date of publication to file a petition for leave to intervene in this proceeding. See “Florida Power & Light Company, Combined License Application for the Turkey Point Units 6 & 7, Notice of Hearing, Opportunity for Leave to Petition to Intervene and Associated Order Imposing Procedures for Access to Sensitive Unclassified Non-Safeguards Information and Safeguards Information for Contention Preparation,” 75 Fed. Reg. 34,777 (June 18, 2010). In response to the Notice of Hearing, CASE submitted a Petition, through which it seeks to intervene in this proceeding, on August 17, 2010.<sup>1</sup> On August 20, 2010, CASE filed a second, and modified, version of its petition (“Amended Petition”).<sup>2</sup> On August 31, 2010, this Atomic

---

<sup>1</sup> In accordance with the Notice of Hearing in this proceeding, timely petitions were to be filed by August 17, 2010. CASE’s representative filed declarations from several of its members through the Electronic Information Exchange (EIE) system on August 17. However, according to emails between CASE’s representative and the Office of the Secretary (which were cc’d to the EIE service list), CASE encountered difficulties with the Electronic Information Exchange system on the evening of August 17, and the Petition was not served via EIE on that date. By email dated August 18, the Office of the Secretary advised CASE’s representative to refile its petition via EIE. CASE’s representative filed the Petition and several attachments via EIE throughout the day on August 18, 2010, with the last portion filed at 8:44pm Eastern Time. Consequently, the Petition and its attachments were not received by the Staff through EIE until August 18, 2010.

<sup>2</sup> The Staff notes that, contrary to the statement in the Certificate of Service accompanying the Amended Petition, Staff counsel did not receive the Amended Petition itself, either through email or EIE, on August 17. See Amended Petition at 47.

Although CASE’s August 20 filing did not explain in detail how it differed from the initial petition, the filing did acknowledge the addition of at least one contention. See Amended Petition (Continued...)

Safety and Licensing Board was established to preside over the proceeding. See 75 Fed. Reg. 54,400 (Sept. 7, 2010).

### DISCUSSION

In the Amended Petition, CASE asserts that it has standing to intervene on behalf of its members. Amended Petition at 3-6. The Petition further proffers 8 contentions. *Id.* at 10-46. For reasons explained below, the Staff does not oppose CASE's standing to intervene as a party and agrees that CASE has proffered at least one admissible contention. Therefore, the Staff submits that the Amended Petition should be granted.

#### I. LEGAL STANDARDS

##### A. Standing to Intervene

In accordance with the Commission's Rules of Practice:

[a]ny person whose interest may be affected by a proceeding and who desires to participate as a party must file a written request for hearing or petition for leave to intervene and a specification of the contentions that the person seeks to have litigated in the hearing.

10 C.F.R. § 2.309(a). The regulations further provide that the Licensing Board:

will grant the [petition] if it determines that the [petitioner] has standing under the provisions of [10 C.F.R. § 2.309(d)] and has proposed at least one admissible contention that meets the requirements of [10 C.F.R. § 2.309(f)].

*Id.*

---

at 45-46. It also appears that the Amended Petition revised text and citations on several of the Petition's introductory pages (*compare* Petition at 2-12 *with* Amended Petition at 2-11), including revising the short list of proposed contentions (*compare* Petition at 2 & 11 *with* Amended Petition at 10-11). The Amended Petition also apparently omits several duplicate pages from the initial petition. See Petition at 48-56. On the assumption that CASE intended the Amended Petition to supersede its earlier filing, the Staff has directed its response to the Amended Petition, and citations throughout this response are accordingly directed to the contention numbering and page numbering of the Amended Petition.

Under the general standing requirements set forth in 10 C.F.R. § 2.309(d)(1), 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 [AEA] 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(d)(1).

As the Commission has observed:

[a]t the heart of the standing inquiry is whether the petitioner has "alleged such a personal stake in the outcome of the controversy" as to demonstrate that a concrete adverseness exists which will sharpen the presentation of issues.

*Sequoyah Fuels Corp. and Gen. Atomics* (Gore, Oklahoma Site), CLI-94-12, 40 NRC 64, 71 (1994) (citing *Duke Power Co. v. Carolina Env'tl. Study Group, Inc.*, 438 U.S. 59, 72 (1978), and quoting *Baker v. Carr*, 369 U.S. 186, 204 (1962)).

To demonstrate such a "personal stake," the Commission applies contemporaneous judicial concepts of standing. Accordingly, petitioner must (1) allege an "injury in fact" that is (2) "fairly traceable to the challenged action" and (3) is "likely" to be "redressed by a favorable decision."

*Sequoyah Fuels*, 40 NRC at 71-72 (quoting *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 560-61 (1992) (citations and internal quotations omitted) and citing *Cleveland Elec. Illuminating Co.* (Perry Nuclear Power Plant, Unit 1), CLI-93-21, 38 NRC 87, 92 (1993)). See also *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-99-10, 49 NRC 318, 323 (1999).

In reactor licensing proceedings, licensing boards have typically applied a "proximity" presumption to persons "who reside in or frequent the area within a 50-mile radius" of the proposed plant. See, e.g., *Fla. Power & Light Co.* (Turkey Point Nuclear

Generating Plant, Units 3 and 4), LBP-01-6, 53 NRC 138, 148 (2001). The Commission noted this practice with approval, stating that:

We have held that living within a specific distance from the plant is enough to confer standing on an individual or group in proceedings for construction permits, operating licenses, or significant amendments thereto[.] See, e.g. *Virginia Electric and Power Co.* (North Anna Power Station, Units 1 and 2), ALAB-522, 9 NRC 54 (1979). . . . [T]hose cases involved the construction or operation of the reactor itself, with clear implications for the offsite environment[.] See, e.g., *Gulf States Utilities Co.* (River Bend Station, Units 1 and 2), ALAB-183, 8 [sic, 7] AEC 222, 226 (1974).

*Fla. Power & Light Co.* (St. Lucie Nuclear Power Plant, Units 1 and 2), CLI-89-21, 30 NRC 325, 329 (1989). The proximity presumption establishes standing without the need to establish the elements of injury, causation, or redress. *Turkey Point*, LBP-01-6, 53 NRC at 150. The Commission has recently affirmed that the 50-mile proximity presumption applies to applications for new nuclear power plants, including combined license applications. *Calvert Cliffs 3 Nuclear Project LLC & Unistar Nuclear Operating Services, LLC* (Combined License Application for Calvert Cliffs, Unit 3), CLI-09-20, 70 NRC \_\_\_ (slip op. at 5-8) (Oct. 13, 2009).

An organization may establish its standing to intervene based upon a theory of organizational standing (showing that its own organizational interests could be adversely affected by the proceeding), or representational standing (based upon the standing of its members).

To demonstrate organizational standing, an organization must be able to intervene in its own right. “Organizations seeking to intervene in their own right must satisfy the same standing requirements as individuals seeking to intervene . . . because an organization, like an individual, is considered a ‘person’ as we have defined that word in 10 C.F.R. § 2.4 and as we have used it in 10 C.F.R. § 2.309 regarding standing.”

*Consumers Energy Co.* (Palisades Nuclear Power Plant), CLI-07-18, 65 NRC 399, 411

(2007). Thus, to establish organizational standing, an organization “must demonstrate a palpable injury in fact to its organizational interests that is within the zone of interests protected by the AEA or NEPA.” *Crow Butte Resources, Inc.* (License Amendment for the North Trend Expansion Project), LBP-08-6, 67 NRC 241, 271 (2008).

Where an organization seeks to establish representational standing, it must show that at least one of its members may be affected by the proceeding, it must identify that member by name and address and it must show that the member “has authorized the organization to represent him or her and to request a hearing on his or her behalf.” See, e.g., *Palisades*, CLI-07-18, 65 NRC at 409; *Amergen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), LBP-06-07, 63 NRC 188, 195 (2006) (citing *GPU Nuclear Inc.* (Oyster Creek Nuclear Generating Station), CLI-00-6, 51 NRC 193, 202 (2000)). Further, for the organization to establish representational standing, the member seeking representation must qualify for standing in his or her own right, the interests that the organization seeks to protect must be germane to its own purpose, and neither the asserted claim nor the requested relief may require an individual member to participate in the organization’s legal action. *Palisades*, CLI-07-18, 65 NRC at 409; *Private Fuel Storage*, CLI-99-10, 49 NRC at 323 (citing *Hunt v. Wash. State Apple Advertising Comm’n*, 432 U.S. 333, 343 (1977)).

B. Legal Requirements for 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) of the Commission’s Rules of Practice.

The standards in 10 C.F.R. § 2.309(f)(1) may be summarized as follows. An admissible contention must: (1) provide a specific statement of the legal or factual issue sought to be raised; (2) provide a brief explanation of the basis for the contention; (3) demonstrate that the issue raised is within the scope of the proceeding; (4) demonstrate

that the issue raised is material to the findings the NRC must make to support the action that is involved in the proceeding; (5) provide a concise statement of the alleged facts or expert opinions, including references to specific sources and documents, that support the petitioner's position and upon which the petitioner intends to rely at the hearing; and (6) provide sufficient information to show that a genuine dispute with the Applicant exists with regard to a material issue of law or fact, including references to specific portions of the application that the petitioner disputes, or in the case when the application is alleged to be deficient, the identification of such deficiencies and supporting reasons for this belief. See 10 C.F.R. § 2.309(f).<sup>3</sup>

---

<sup>3</sup> Section 2.309(f) provides:

(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;

(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; and

(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.

(vii) [omitted]

(Continued...)

Sound legal and policy considerations underlie the Commission's contention requirements. The purpose of the contention rule is to "focus litigation on concrete issues and result in a clearer and more focused record for decision." 69 Fed. Reg. at 2202; *see also Vermont Yankee Nuclear Power Corp. v. NRDC*, 435 U.S. 519, 553-54 (1978); *BPI v. AEC*, 502 F.2d 424, 428 (D.C. Cir. 1974); *Phila. Elec. Co.* (Peach Bottom Atomic Power Station, Units 2 and 3), ALAB-216, 8 AEC 13, 20 (1974). The Commission has stated 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." 69 Fed. Reg. at 2202. The Commission has emphasized that the rules on contention admissibility are "strict by design." *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 358 (2001), *pet. for reconsideration denied*, CLI-02-01, 55 NRC 1 (2002). Failure to comply with any of these requirements is grounds for the dismissal of a contention. 69 Fed. Reg. at 2221; *see also, Private Fuel Storage, L.L.C.*, CLI-99-10, 49 NRC at 325; *Ariz. Pub. Serv. Co. et al.* (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), CLI-91-12, 34 NRC 149, 155-56 (1991). "Mere 'notice pleading' does not suffice." *Amergen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), CLI-06-24, 64 NRC 111, 119 (2006).

---

(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.

Finally, it is well established that the purpose for requiring a would-be intervener to establish the basis of each proposed contention is: (1) to assure that the contention raises a matter appropriate for adjudication in a particular proceeding; (2) to establish a sufficient foundation for the contention to warrant further inquiry into the assertion; and (3) to put other parties sufficiently on notice of the issues so that they will know generally what they will have to defend against or oppose. *Peach Bottom*, ALAB-216, 8 AEC at 20-21; *Ariz. Pub. Serv. Co., et al.* (Palo Verde Nuclear Generating Station, Units 1, 2 and 3), LBP-91-19, 33 NRC 397, 400 (1991). The *Peach Bottom* decision requires that a contention be rejected if:

- (1) it constitutes an attack on applicable statutory requirements;
- (2) it challenges the basic structure of the Commission's regulatory process or is an attack on the regulations;
- (3) it is nothing more than a generalization regarding the petitioner's view of what applicable policies ought to be;
- (4) it seeks to raise an issue which is not proper for adjudication in the proceeding or does not apply to the facility in question; or
- (5) it seeks to raise an issue which is not concrete or litigable.

*Peach Bottom*, 8 AEC at 20-21.

These rules focus the hearing process on real disputes susceptible to resolution in an adjudication. See *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 334 (1999). For example, "a petitioner may not demand an adjudicatory hearing to attack generic NRC requirements or regulations or to express generalized grievances about NRC policies." *Id.* Specifically, NRC regulations do not allow a contention to attack a regulation unless the proponent requests a waiver from the Commission. See 10 C.F.R. § 2.335; *Entergy Nuclear Vermont Yankee, LLC* (Vermont Yankee Nuclear Power Station), *Entergy Nuclear Generation Co.* (Pilgrim Nuclear Power Station), CLI-07-3, 65 NRC 13, 17-18 and n.15 (2007) (citing *Millstone*, CLI-01-24, 54 NRC at 364).

## II. CASE HAS ESTABLISHED STANDING

In support of its standing in this proceeding, CASE provides declarations demonstrating that it has members who live within 50 miles of the Turkey Point site. Amended Petition at 3.<sup>4</sup>

CASE asserts representational standing to intervene in this proceeding by claiming members of their organizations who live within 50 miles of the proposed site that have authorized it to represent them in this proceeding. *Id.* CASE states that these “attached Declarations declare that people who live near (within 50 miles, though some live much closer) the Turkey Point site, declare further that they are members of CASE and that they support this petition. Thus, they have presumptive standing in this intervention by virtue of their support for the action and their proximity to the proposed nuclear plants that may be constructed on the site.” *Id.* at 5. CASE has established representational standing by demonstrating that their members would otherwise have standing to participate in their own right and that at least one of their members have authorized them to represent the member’s interests. *See Palisades*, CLI-07-18, 65 NRC at 409.

All but one of CASE’s members that provided declarations have established standing to intervene in his or her own right by satisfying the proximity presumption.<sup>5</sup>

---

<sup>4</sup> The Amended Petition asserts that 25 CASE members signed declarations in support of the Petition. However, it appears that only 18 were actually filed. Declarations were submitted by: (1) Ms. Cynthia Acosta, signed 8/16/2010; (2) Ms. Blanca Alvarez, signed 8/16/2010; (3) Mr. Dale Andree signed 8/14/2010; (4) Mr. Dieter Bauer, signed 8/16/2010; (5) Ms. Anna Bystrik, signed 8/17/2010; (6) Mr. Russell Clusman, signed 8/16/2010; (7) C.D. Flash, signed 8/17/2010; (8) Mr. Warren S. Hoskins, signed 8/15/2010; (9) Ms. Lisa Kasenow, signed 8/1/2010; (10) Mr. Alan Kobrin, signed 8/15/2010; (11) Mr. Daniel Marmorstein, signed 8/15/2010; (12) Mr. Kenneth J. Muller, signed 8/16/2010; (13) Mr. Robert C. Ross, signed 8/16/2010; (14) Ms. Susana Rossi, signed 8/15/2010; (15) Mr. Richard L. Rotundo, signed 8/15/2010; (16) Ms. Beth Schwartz, signed 8/17/2010; (17) Ms. Judith A. Siskind, signed 8/16/2010; and (17) Mr. Dean Whitman, signed 8/15/2010.

Further, all of these individuals have authorized CASE to represent their interests in the instant proceeding. Accordingly, CASE has satisfied the standards for representational standing set forth in *Palisades*, CLI-07-18, 65 NRC at 409.<sup>6</sup>

The Staff agrees that CASE has demonstrated representational standing to intervene in this proceeding.

---

<sup>5</sup> CASE member Lisa Kasenow acknowledges in her declaration that her residence is more than 50 miles from the Turkey Point site. She states that she resides approximately 160 miles from the site and owns non-residential property “10-12 miles from Turkey Point.” Kasenow Declaration at 1. Further, Ms. Kasenow states that she has “2 immediate family members who live 7 miles from Turkey Point.” *Id.* An individual’s reference to the proposed facility’s proximity to the residence of other persons (such as family members), without more explanation of the nature of the individual’s own contacts in the area, is insufficient to demonstrate standing under the proximity presumption. See, e.g., *PPL Bell Bend, LLC* (Bell Bend Nuclear Power Plant), CLI-10-07, 71 NRC \_\_ (slip op. at 7) (2010) (“[A] petitioner who seeks to base standing in a combined license proceeding on contacts within a 50-mile radius of the proposed facility must provide enough detail to allow the Board to distinguish a casual interest from a substantial one.”). Likewise, even assuming Ms. Kasenow owns “non-residential property” within the 50-mile radius, she does not explain the nature of that property or otherwise describe the extent of her contacts within the 50-mile radius and thus has not demonstrated standing in her own right under the traditional injury-in-fact standard. *Id.* Nevertheless, given the other member declarations supporting CASE’s representational standing, the fact that Ms. Kasenow has not demonstrated standing in her own right does not alter the Staff’s view that CASE has demonstrated representational standing.

The address provided in the declaration of Ms. Anna Bystrik was difficult to read. However, the entire zip code she provided (33156) falls within 50 miles of the Turkey Point site. Address locations were reviewed using Microsoft *Streets and Trips* and Google Maps.

<sup>6</sup> Because CASE has asserted standing only on a theory of representational standing, and has not additionally sought to assert organizational standing, the Staff has not addressed organizational standing in its response.

III. CONTENTIONS<sup>7</sup>

A. PROPOSED CONTENTION 1:

The emergency plan on file with Miami-Dade County does [sic] adequately protect public health of people in the Turkey Point Plume Exposure Zone following an accidental radiation release from FPL's nuclear reactor facilities at Turkey Point.

Amended Petition at 11. Although the plain language of the contention states that the emergency plan is adequate, it is clear from the discussion of the contention that CASE intended to contend that the emergency plan is inadequate. Proposed Contention 1 is inadmissible for the reasons discussed below.

CASE asserts the following four general bases for this proposed contention: (1) "[e]vacuation plans are not adequate for timely evacuation of all the people who could be affected in an accidental radiation release"; (2) [e]vacuation screening and shelter provisions lack capacity for the number of people living in the evacuation zone"; (3) "[p]otassium iodide (KI) cannot be delivered in a timely manner to provide best protection from thyroid cancer"; and (4) "[r]eactor design proposed for TPN 6 & 7 elevates risk of radiation release and makes effective evacuation and KI plans more critical." *Id.* at 11-12.<sup>8</sup>

---

<sup>7</sup> In the Amended Petition, there is one "contention" alluded to in the outline at the outset of the pleading that does not appear to be addressed anywhere in the remainder of the petition. See Amended Petition at 2 (Item "8": "The projections for the Turkey Point units 6 & 7 decommissioning fund do not reflect the issues raised in contentions in section 1."). Because CASE does not elaborate on this statement elsewhere in the Amended Petition, nor explain to what extent any attachments are offered as support for it, the Staff has declined to address it specifically in its response. However, to the extent that this single-sentence reference could be construed as a contention, the Staff submits that as the Petitioners provide no additional information to explain or support it, it fails to meet the admissibility criteria of 10 C.F.R. § 2.309(f)(1)(ii)-(vi).

<sup>8</sup> Because the four bases present distinct arguments, the Staff responds to each of these bases separately below. For the reasons explained below, each basis fails to provide support for the admissibility of the contention; moreover, these bases do not have any cumulative force that (Continued...)

In connection with these bases, CASE makes several additional statements regarding the emergency plan. CASE states that the evacuation routes “include only three main roads” and asserts that “[e]ven a moderate wind from the south would overtake people fleeing the evacuation area.” *Id.* at 13. It asserts that the “Florida Department of Community Affairs states that up to 17 hours would be required to evacuate coastal areas of Miami-Dade County”; CASE subsequently asserts that “[i]n only two hours, even the lightest breeze would push the radiation plume over residents attempting to evacuate the 10-mile EPZ[.]” *Id.* CASE states that as a result “parents working outside the evacuation zone would have to drive back into the zone to retrieve their children, adding to traffic congestion and further delaying evacuation.” *Id.* CASE also appears to question the capacity of the Tamiami Park Emergency Reception Center to accommodate evacuating residents. *Id.* at 14. CASE states that Miami-Dade County “has no effective plan to transport KI [potassium iodide] from the [Florida International University (FIU)] campus to residents who shelter-in-place in their houses or businesses prior to their exposure from a moving radiation cloud.” *Id.*

CASE also asserts that “[a]nalysis of the AP1000 by nuclear engineer Arnie Gundersen has revealed an elevated likelihood of corrosion leakage in combination with a ‘chimney effect’ in the containment housing that would rapidly vent radiation into the atmosphere during a core meltdown.” *Id.* CASE states that therefore “the needs for more effective plans for evacuation and KI distribution are more compelling for TPN 6 & 7 than for the existing TPN 3 & 4 reactors.” *Id.* Finally, CASE provides an excerpt from what it describes as a statement by the U.S. Coast Guard. *Id.* at 15. CASE

---

would constitute an admissible contention. The Staff will respond to the other proposed contentions using the same approach.

characterizes the statement as indicating that the Coast Guard requires “the level of protection that CASE believes all the residents of the area deserve[.]” *Id.*

Staff Response: Proposed Contention 1 is inadmissible because it is unsupported by alleged facts or expert opinion and fails to identify a genuine dispute with the application regarding a material issue of law or fact. See 10 C.F.R. § 2.309(f)(1)(v)-(vi).

With respect to Basis 1, to support the assertion that “[e]vacuation plans are not adequate for timely evacuation of all people who could be affected in an accidental radiation release,” the Petitioners make statements regarding the evacuation plan and provide links to two websites. Amended Petition at 13. However, the referenced documents either do not support the statements made by CASE, or do not demonstrate how the Emergency Plan (EP) is defective. *Id.* at 13,

First, CASE asserts that “evacuation routes include only three main roads,” that people evacuating from South Dade and the Florida Keys would “further congest” those three routes, that “the radiation plume may extend 50 miles,” and that “[e]ven a moderate wind from the south would overtake” evacuating people. *Id.* The Commission requires petitioners to submit “supporting information and references to specific documents and sources that serve to establish the validity of the contention.” *Amergen Energy Co., LLC (Oyster Creek Nuclear Generating Station)*, CLI-06-24, 64 NRC 111, 118-19 (2006). “[P]etitioners must do more than submit ‘bald or conclusory allegation[s]’ of a dispute with the applicant.” *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Unit 2), LBP-03-12, 58 NRC 75, 81 (2003); see also “Final Rule, Rules of Practice for Domestic Licensing Proceedings -- Procedural Changes in the Hearing

Process," 54 Fed. Reg. 33,168, 33,171 (1989). CASE provides no support, factual or otherwise, for these statements,<sup>9</sup> contrary to 10 C.F.R. § 2.309(f)(1)(v).

Second, the two websites referenced by CASE do not appear to stand for the propositions for which they are presented. The Petitioners reference the Florida Department of Community Affairs Miami-Dade profile to state that "up to 17 hours would be required to evacuate coastal areas of Miami-Dade County." Amended Petition at 13. Although that statement is contained in the referenced document, CASE then alleges that "in only two hours, even the slightest breeze would push the radiation plume over residents attempting to evacuate the 10-mile EPZ." *Id.* In determining contention admissibility, "[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." *Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), LBP-96-2, 43 NRC 61, 90 (1996); *rev'd in part on other grounds*, CLI-96-7, 43 NRC 235 (1996). CASE does not explain how these websites support its assertion regarding the speed of the radiation plume (e.g., that evacuating residents would be exposed to a radiation plume within two hours), nor does it offer any other facts or expert opinion to do so, contrary to 10 C.F.R. § 2.309(f)(1)(v).

Lastly, CASE references a document from Miami-Dade County, which it characterizes as explaining "nuclear emergency evacuation to parents." Amended Petition at 13. It appears that CASE is arguing that because of the instructions in this document, parents will drive into the evacuation zone to pick up their children and thus, cause further traffic congestion and delay the evacuation. See *id.* As a threshold matter, CASE has misinterpreted to whom this document is addressed. The referenced

---

<sup>9</sup> With regard to the 50 mile radiation plume, Petitioner describes this in a parenthetical as "(Ingestion Exposure Pathway EPZ)", but provides no context or reference for that parenthetical. Amended Petition at 13.

document is guidance to “special facilities,” such as schools, for managing their emergency preparedness planning,<sup>10</sup> not to parents for retrieving their children during an emergency. Thus, it is not clear what instructions parents will receive in the event of the need to evacuate, or why this guidance would “add[] to traffic congestion and further delay[] evacuation.” See *id.* at 13. Moreover, CASE fails to explain why, even if true, this would represent an inadequacy in the evacuation plan.

For similar reasons, Basis 1 of Proposed Contention 1 also fails to provide sufficient information to show that a genuine dispute exists with the applicant on a material issue of law or fact or to include references to specific portions of the application (including the applicant’s environmental report and safety report) that the petitioner disputes. See 10 C.F.R. § 2.309(f)(1)(vi). CASE makes general statements regarding evacuation routes, evacuation times and the possible effects of parents driving into the evacuation zone to pick up their children, but it does not explain how any of its statements contradict the emergency plan in the COL application, much less demonstrate that it is inadequate. In determining contention admissibility, “[a]ny contention that fails directly to controvert the application or that mistakenly asserts the application does not address a relevant issue can be dismissed.” See *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Unit 3), LBP-08-9, 67 NRC 421, 433 (citing *Sacramento Mun. Util. Dist.* (Rancho Seco Nuclear Generating Station), LBP-93-23, 38 NRC 200, 247-48 (1993), *review declined*, CLI-94-2, 39 NRC 91 (1994)). Having failed to identify any specific disagreement with the application itself, contrary to 10 C.F.R. § 2.309(f)(1)(vi), this basis does not support the admissibility of Proposed Contention 1.

---

<sup>10</sup> See [http://www.miamidade.gov/oem/library/preparedness\\_planning\\_sheet.pdf](http://www.miamidade.gov/oem/library/preparedness_planning_sheet.pdf).

With respect to Basis 2, to support the assertion that “[e]vacuation screening and shelter provisions lack capacity for the number of people living in the evacuation zone,” Petitioner references the Florida Division of Emergency Management’s *FloridaDisaster.Org* website. Amended Petition at 13. The link is to a spreadsheet of hurricane shelters by county.<sup>11</sup> Although this spreadsheet purports to contain data for over 50 hurricane shelters in Miami-Dade County, CASE’s statement appears to address only one of those shelters, Tamiami Park Emergency Reception Center. *Id.* After asserting that this single shelter “has a host capacity for 1000 evacuees and a reported usage capacity of 2450,” *see id.*, CASE appears to conclude that “plans to evacuate people in the radiation plume could not accommodate 98% of residents in the 10-mile EPZ....” *Id.* at 14.<sup>12</sup> Particularly when other shelters within Miami-Dade County are identified in the same referenced document as having available capacity, CASE fails to explain why the Tamiami Park center is the only center available in the event of an evacuation and thus fails to demonstrate a genuine dispute with the EP on a material issue of law or fact as required by 10 C.F.R. § 2.309(f)(1)(vi). Without further explanation, CASE’s reliance on this document fails to support CASE’s stated conclusion, contrary to 10 C.F.R. § 2.309(f)(1)(v). *See Yankee Nuclear*, LBP-96-2, 43 NRC at 90.

For similar reasons, this basis for Proposed Contention 1 fails to provide sufficient information to show that a genuine dispute exists with the applicant on a

---

<sup>11</sup> See <http://www.floridadisaster.org/Response/engineers/documents/2008SESP/2008-SESP-AppxA/2008SESP-AppxA-Miami-Dade.pdf>.

<sup>12</sup> CASE misidentifies the label of the capacity column in the spreadsheet as “usage capacity”; the spreadsheet labels it as “Total Risk Capacity.” Amended Petition at 13-14. See <http://www.floridadisaster.org/Response/engineers/documents/2008SESP/2008-SESP-AppxA/2008SESP-AppxA-Miami-Dade.pdf>.

material issue of law or fact or to include references to specific portions of the application that the petitioner disputes. See 10 C.F.R. § 2.309(f)(1)(vi); *Millstone*, LBP-08-9, 67 NRC at 433. CASE fails to explain why concerns regarding the capacity of the Tamiami Park in particular contradict any assumption, analysis, or conclusion in the application, much less demonstrate an inadequacy in the emergency plan. Without identifying any specific disagreement with the application itself, contrary to 10 C.F.R. § 2.309(f)(1)(vi), this basis does not support the admissibility of Proposed Contention 1.

With respect to Basis 3, to support the assertion that “KI [potassium iodide] cannot be delivered in a timely manner to provide best protection from thyroid cancer,” CASE makes statements regarding the use and distribution of KI and provides links to two websites. Amended Petition at 14. However, the referenced documents either do not support the statements made by CASE or do not demonstrate how the COL application is defective. CASE begins by asserting that both the NRC and the World Health Organization (WHO) state that “KI should be ingested **prior** to encountering the radiation cloud.” *Id.* (emphasis in original).<sup>13</sup> CASE then quotes a document on the Florida Power & Light (FPL) website regarding the distribution of KI by the Florida Department of Health, which states that “[i]f conditions warrant, the Florida Health Department will make potassium iodide available at the reception centers.”<sup>14</sup> *Id.* CASE subsequently asserts that “the time required to evacuate the 10-mile EPZ to the ERC at

---

<sup>13</sup> CASE provides no reference to verify the alleged WHO statement, only a website link to an NRC document stating that “[i]f radioactive iodine is taken into the body after consumption of potassium iodide, it will be rapidly excreted from the body.” The web address provided in the petition is inaccurate; it appears the Petitioners intended to reference <http://www.nrc.gov/about-nrc/emerg-preparedness/about-emerg-preparedness/potassium-iodide-use.html>. In any event, this statement is taken out of context. The NRC website does not discuss encounters with the “radiation cloud,” but simply discusses why KI may be taken during an emergency and generally who should do so. *Id.*

<sup>14</sup> See [http://www.fpl.com/environment/nuclear/pdf/turkey\\_point.pdf](http://www.fpl.com/environment/nuclear/pdf/turkey_point.pdf), at 7.

Tamiami Park (up to 17 hours) would be too great to prevent initial exposure to inhaled radioiodines” and that “the county has no effective plan to transport KI from the FIU campus to residents who shelter-in-place[.]” *Id.*

As explained in connection with Basis 1, *supra*, CASE fails to identify or support any dispute between the contention and the contents of the COL application emergency plan with respect to expected evacuation times. With respect to Basis 3, CASE likewise does not provide facts or expert support to explain why evacuation times would be “too great to prevent initial exposure to inhaled radioiodines,” what timeframe for distribution of KI would be necessary, or why any existing County plan to do so is inadequate, contrary to 10 C.F.R. § 2.309(f)(1)(v). Amended Petition at 14. Furthermore, CASE does not reference the COL application. Consequently, it does not explain in what way its claims regarding KI distribution – even if correct – contradict any assumption, analysis, or conclusion therein, contrary to 10 C.F.R. § 2.309(f)(1)(vi). *See Millstone*, LBP-08-9, 67 NRC at 433. Accordingly, Basis 3 does not support the admissibility of Proposed Contention 1.

With respect to Basis 4, CASE asserts that “[a]nalysis of the AP1000 by nuclear engineer Arnie Gundersen has revealed an elevated likelihood of corrosion leakage in combination with a ‘chimney effect’ in the containment housing that would rapidly vent radiation into the atmosphere during a core meltdown.” Amended Petition at 14. CASE states that therefore “the needs for more effective plans for evacuation and KI distribution are more compelling for TPN 6 & 7 than for the existing TPN 3 & 4 reactors.” *Id.* The only documentary support referenced in connection with this basis is a document titled “Declaration of Arnold Gundersen Supporting Blue Ridge Environmental Defense League’s New Contention Regarding AP1000 Containment Integrity On The Vogtle Nuclear Power Plant Units 3 and 4” (“Gundersen Declaration”), which appears to

have been offered to support a contention in a separate NRC combined license proceeding.

Even if CASE were correct that the alleged AP1000 design issue would “rapidly vent radiation into the atmosphere during a core meltdown,” neither the Petition nor the Gundersen Declaration explain why that would affect any assumption or analysis in the Turkey Point emergency plan, let alone demonstrate that the Turkey Point application is inadequate. Amended Petition at 14. The Gundersen Declaration includes a brief statement that “given the probability of gaseous release of radioactive isotopes in the event of an accident, the Vogtle emergency planning zones and the owner-controlled exclusion zones must be expanded.” Gundersen Declaration at 10. However, CASE does not explain how such a statement demonstrates a need for “more effective plans for evacuation and KI distribution” at Turkey Point, or how such an assertion regarding the Vogtle site’s emergency planning zones is relevant to the Turkey Point site or emergency plan. Amended Petition at 14. CASE therefore has not demonstrated any factual or expert support for its assertion regarding the Turkey Point application, contrary to 10 C.F.R. § 2.309(f)(1)(v). “[N]either mere speculation nor bare or conclusory assertions, even by an expert, alleging that a matter should be considered will suffice to allow the admission of a proffered contention.” *Southern Nuclear Operating Co.* (Early Site Permit for Vogtle ESP Site), LBP-07-03, 65 NRC 237, 253 (2007) (citing *Fansteel, Inc.* (Muskogee, Oklahoma Site), CLI-03-13, 58 NRC 195, 203 (2003)).<sup>15</sup>

---

<sup>15</sup> To the extent CASE intends its Basis 4 to encompass a challenge to the adequacy of the AP1000 design, it concerns issues that are outside the scope of this proceeding, contrary to 10 C.F.R. § 2.309(f)(1)(iii). The Gundersen Declaration was submitted in the combined license proceeding for Southern Nuclear Operating Company’s application for two AP1000 units to be located at the Vogtle site in Georgia. However, most of the declaration focuses on Mr. Gundersen’s opinion that the AP1000 reactor design is inherently flawed and lacking in containment integrity, due to the fact that its containment has only a single barrier, which cannot (Continued...)

Furthermore, as with the other proposed bases for Contention 1, CASE does not cite any portion of the application with which it disagrees. The Petition summarily concludes that “the needs for more effective plans for evacuation and KI distribution are more compelling for TPN 6 & 7 than for the existing TPN 3 & 4 reactors.” Petition at 14. However, it does not explain how the alleged AP1000 design issue would challenge any emergency planning provisions employed in connection with the proposed units, or in what way the proposed Units 6 and 7 emergency plan is thus deficient. It therefore fails to demonstrate how its allegation represents a dispute with the application on a material issue, contrary to 10 C.F.R. § 2.309(f)(1)(vi). See *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Unit 2), LBP-03-12, 58 NRC 75, 81 (2003) (“[P]etitioners must do more than submit ‘bald or conclusory allegation[s]’ of a dispute with the applicant. They must ... ‘read the pertinent portions of the license application, including the Safety Analysis Report and the Environmental Report, state the applicant’s position and the petitioner’s opposing view,’ and ‘explain[] why they have a disagreement with [the applicant].’”). Accordingly, Basis 4 does not support the admissibility of Proposed Contention 1.

---

be compensated for by the protective coatings of the containment structure or by ASME inspection programs. Gundersen Declaration at 3-7. Mr. Gundersen thus concludes that because of these alleged design deficiencies, the “existing coating application and inspection regime suggested by the applicant does not provide adequate margins of safety in Vogtle Units 3 and 4.” *Id.* at 9. The thrust of his concern thus lies with the AP1000 reactor design, and his challenges pertaining to the Vogtle COL application are subsidiary to and derived from the challenges to the reactor design. Furthermore, the AP1000 design issue to which Mr. Gundersen refers has not been substantively changed in connection with Westinghouse’s proposed amendment to the AP1000 design that is currently under NRC review. Because Mr. Gundersen’s concern thus essentially challenges the AP1000 reactor design, as codified in 10 C.F.R. Part 52, Appendix D, it raises issues that were resolved in the certified design, in violation of 10 C.F.R. § 52.63(a)(5), and otherwise impermissibly challenges established NRC regulations, in violation of 10 C.F.R. § 2.335. For these reasons, to the extent CASE seeks to invoke the Gundersen Declaration as demonstrating the inadequacy of the AP1000 design, it raises issues outside the scope of the Turkey Point COL proceeding, in contravention of 10 C.F.R. § 2.309(f)(1)(iii).

CASE concludes the discussion of Proposed Contention 1 by quoting the text of a letter purporting to be from the Commander of the Seventh Coast Guard District.<sup>16</sup> Amended Petition at 15. CASE fails to explain why the statements in the letter contradict any aspect of the COL application and thus fail to demonstrate a genuine dispute with the applicant. In determining whether a contention contains the necessary factual or expert support, “attaching a document in support of a contention without any explanation of its significance does not provide an adequate basis for a contention.” See *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-98-10, 47 NRC 288, 298-99 (1998); see also *Rancho Seco*, LBP-93-23, 38 NRC 200, 246 (“A contention that simply alleges that some matter ought to be considered does not provide the basis for an admissible contention.”). Accordingly, this excerpted letter does not support the admissibility of the contention.

For the foregoing reasons, Proposed Contention 1 is inadmissible.<sup>17</sup>

---

<sup>16</sup> CASE did not attach the letter to its petition, nor otherwise explain its source.

<sup>17</sup> The Staff notes that CASE filed two other documents with its petition that arguably bear on Contentions 1 and 2. These are the “Expert Declaration by Dr. Philip K. Stoddard in Support of Petitioner’s Standing to Intervene in this Proceeding” (“Stoddard Declaration”) and the “Curriculum Vitae for Philip Kraft Stoddard” (“Stoddard CV”). For several reasons, the Staff submits that these documents do not alter the Staff’s analysis above or otherwise render the contention admissible. Most significantly, neither document is referenced or even mentioned in the text of either proposed contention 1 or proposed contention 2. The Amended Petition thus does not explain how these documents support the proposed contentions. “Simply attaching material or documents as a basis for a contention, without setting forth an explanation of that information’s significance, is inadequate to support the admission of the contention.” See *PPL Susquehanna LLC* (Susquehanna Steam Electric Station, Units 1 and 2), LBP-07-10, 66 NRC 1, 23 (2007).

Even if CASE had appropriately explained the relationship of these documents to its contention, a brief review of the Stoddard Declaration and Stoddard CV indicates that none of the educational, teaching, or research expertise listed for Dr. Stoddard appears to be in any disciplines related to emergency planning or evacuation plans, the asserted subject matter of the contention. Nor does Dr. Stoddard directly claim to have training or expertise in these areas in the portion of his Declaration concerning “Education, Research, and Professional Work Experience. Rather, he states that “as Mayor of South Miami” he has “familiarized [himself] with emergency procedures, emergency shelters, and local evacuation routes...[and] with the World (Continued...)

B. PROPOSED CONTENTION 2:

Failure and omission [sic] of the FPL COL for the proposed Turkey Point Nuclear Reactors 6&7 to provide for the safe and orderly evacuation of the population during or following a nuclear event (unusual nuclear occurrence [sic]).

Amended Petition at 15. CASE states that “[t]he evacuation plan does not meet the criteria of protect(ing) [sic] the health and safety of the public as prescribed by the Atomic Energy Act of 1954, and as exemplified by 10 CFR 50.47” and that “the increase in population, and findings of studies of actual population and institutional response to actual emergencies are not adequately reflected in the FPL emergency response plan.”

*Id.* at 16. CASE alleges that “[t]he plan, particularly with respect to

---

Health Organization reports on radiological emergencies” and that he has “analyzed the radiological emergency plans in place within Miami-Dade County.” Stoddard Declaration at 2. CASE has not explained why Dr. Stoddard’s statements would constitute “expert support” for the purpose of 10 CFR 2.309(f)(1)(v). *See, e.g., Pacific Gas and Electric Company* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), LBP-78-36, 8 NRC 567, 570 (1978) (“the qualifications of an expert witness are established either through consideration of his academic training or of his relevant experience, or through some combination of these factors”,). In the *Diablo Canyon* decision, the licensing board denied the expert status of someone who was “not qualified on the basis of [] academic background alone,” but was, the Board said, a “well-informed layman, with a broad general knowledge of the field, but [without] the requisite depth of knowledge [] to qualify as an expert.” *See Diablo Canyon*, 8 NRC at 573-74. It seems clear that Dr. Stoddard is an expert in his chosen field of study. However, his CV does not indicate any expert-level knowledge of the subject of the contention at issue. Since neither the Petitioners nor Dr. Stoddard himself have affirmatively asserted expert-level education, training, or experience bearing on the issues raised in this contention, he should not be regarded as an expert for that purpose.

Furthermore, the Stoddard Declaration does not identify documents on which the declarant relies for his opinions, *see* 10 C.F.R. 2.309(f)(1)(v), and does not explain the factual basis underlying his assertions regarding the emergency plan’s alleged failings. *See USEC, Inc.* (American Centrifuge Plant), CLI-06-10, 63 NRC 451, 472 (2006) (“an expert opinion that merely states a conclusion (e.g., the application is ‘deficient,’ ‘inadequate,’ or ‘wrong’) without providing a reasoned basis or explanation for that conclusion is inadequate because it deprives the Board of the ability to make the necessary, reflective assessment of the opinion ....”) Also, like Contention 1, the Stoddard Declaration does not cite any particular portion of the application, let alone identify a clear disagreement with it, contrary to 10 C.F.R. § 2.309(f)(1)(vi). Accordingly, even if the Board were to consider these two documents, they fail to provide support sufficient for Contention 1 to meet 10 C.F.R. § 2.309(f)(1) requirements.

evacuation/population response is therefore incomplete and also does not follow NUREG 0654 guidelines.” *Id.*

CASE asserts the following six general bases for this proposed contention: (1) that the Applicant has simply made “minor modification[s]” to the existing Turkey Point emergency plan rather than preparing a new one for the COL application. *Id.* at 18; (2) that “the use of the existing Turkey Point evacuation plan does not reflect the LARGE population expansion in permanent population that has occurred between 1970 and now,” *Id.* at 16, (Emphasis in original); (3) that “NUREG 0654 advocates evacuation over sheltering yet the FPL COL indicates that sheltering is an acceptable alternative for some part of the population,” *Id.*; (4) that “[t]hese [population] figures do not include seasonal visitors, migrant workers, or people attending sports events and visiting parks and tourist attractions,” *Id.* at 17; (5) that “[e]vacuation from a nuclear plant is far different from other events,” *Id.* at 23, due to “actual population and institutional response to actual emergencies,” *Id.* at 16; and (6) that the evacuation plan does not protect the “health and safety of the public” because it does not meet the requirements of the Atomic Energy Act, 10 C.F.R. § 50.47, and “does not follow NUREG 0654 guidelines.” *Id.*

Additionally, CASE restates assertions made in Proposed Contention 1 regarding the time to evacuate the population and the routes of the evacuation by stating that “it will take from 6 to 11.4 hours to evacuate 100% of the population plus up to 6 hours for some of the population to prepare to evacuate[,] ... [a]nd only three roads on which to do it ....”<sup>18</sup> *Id.*

---

<sup>18</sup> These reassertions do not change the Staff’s analysis of the inadmissibility of CASE’s claims in Proposed Contention 1 regarding the evacuation plan, nor do they raise additional bases to support Proposed Contention 2.

Lastly, CASE makes a “closing statement” in which it raises concerns regarding the location of Turkey Point. *Id.* at 25-26.

*Staff Response:* Proposed Contention 2 is inadmissible because it fails to demonstrate that the issue raised is within the scope of the proceeding and material to the findings that the NRC must make in this proceeding; is unsupported by alleged facts or expert opinion; and fails to identify a genuine dispute with the application regarding a material issue of law or fact. See 10 C.F.R. § 2.309(f)(1)(iii)-(vi).

With respect to Basis 1, CASE provides no support for the assertion that the Applicant has simply made “minor modification[s]” to the existing Turkey Point emergency plan rather than preparing a new one for the COL application. Amended Petition at 18. CASE’s argument, in large part, appears to rest on the presumption that the Applicant’s evacuation plan is in fact the emergency plan currently in use for the existing Turkey Point units, with “minor modification.” *Id.* CASE’s assertion that the Applicant is proposing to use the existing units’ plan is raised in the context of the validity of population estimates for the evacuation plan. CASE’s assertions concerning these population estimates are discussed *infra*. As a threshold matter, however, CASE alleges that the evacuation plan is the same plan as that used for the existing plants but provides no reference to the proposed emergency plan in the COL application to explain or support that assertion or show how its claims constitute a genuine dispute with the application as required by 10 C.F.R. § 2.309(f)(1)(vi). In determining contention admissibility, “[a]ny contention that fails directly to controvert the application or that mistakenly asserts the application does not address a relevant issue can be dismissed.” See *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Unit 3), LBP-08-9, 67 NRC 421, 433 (citing *Sacramento Mun. Util. Dist.* (Rancho Seco Nuclear Generating Station), LBP-93-23, 38 NRC 200, 247-48 (1993), *review declined*, CLI-94-2, 39 NRC 91 (1994)). Having failed to identify any specific disagreement with the

application itself, contrary to 10 C.F.R. § 2.309(f)(1)(vi), this basis does not support the admissibility of Proposed Contention 2.

With respect to Basis 2, that “the use of the existing Turkey Point evacuation plan does not reflect the LARGE population expansion in permanent population that has occurred between 1970 and now,” *Id.* at 16 (emphasis in original), CASE has not identified, as discussed *supra*, any part of the COL application that states that the Turkey Point 6 & 7 evacuation plan is the same plan being used for the existing units. Moreover, CASE fails to provide support, factual or otherwise, for its claim that either the existing or proposed plan fails to appropriately account for post-1970 population growth. See 10 C.F.R. § 2.309(f)(1)(v). The COL application provides population estimates as of 2009. Specifically, the Applicant’s EP plan states that the “Permanent Resident Population Basis,” EP, Part 5, Supplement 1, *Turkey Point Nuclear Power Plant Development of Evacuation Time Estimates*, Rev 0 (March 2009), Table 1-1, p. 1-9, was based on the “2000 Census, extrapolated to 2009.” *Id.* Indeed, CASE cites the extrapolated 2009 population estimate from the COL application in Table 2 of its Amended Petition. Amended Petition at 17. However, CASE does not explain in what way the emergency plan is therefore deficient. CASE has not explained the basis for its disagreement with the application, and “it is the petitioner who is obligated to provide the analyses and expert opinion showing why its bases support its contention.” *Georgia Institute of Technology* (Georgia Tech Research Reactor, Atlanta, Georgia), LBP-95-6, 41 NRC 281, 305 (1995), *quoting* *Ariz. Pub. Serv. Co.* (Palo Verde Nuclear Generating Station, Units 1, 2 and 3), CLI-91-12, 34 NRC 149 (1991). Consequently, with respect to its statements regarding population expansion, the information that CASE has provided does not show that a genuine dispute exists with the applicant on a material issue of law or fact, contrary to 10 C.F.R. § 2.309(f)(1)(vi). Accordingly, this basis does not support the admissibility of Proposed Contention 2.

With respect to Basis 3, CASE asserts that “NUREG 0654 advocates evacuation over sheltering yet the FPL COL indicates that sheltering is an acceptable alternative for some part of the population.” Amended Petition at 16. CASE further asserts that according to the “Abstract of NUREG 0654,” studies have “led the NRC staff to conclude that the preferred initial protective action for a severe (core damage) accident is to evacuate promptly rather than to shelter the population near the plant, barring any constraints to evacuation” and that “[t]he guidance in this document is intended to update and simplify the decisionmaking process for protective actions for severe reactor accidents given in Appendix 1 to NUREG-0654/FEMAREP.” *Id.* at 19. However, while the language CASE cites in the Petition comes from the abstract of Supplement 3 to NUREG-0654 issued in July 1996,<sup>19</sup> there is additional language in the same document which clarifies the conditions under which evacuation is recommended over sheltering. NUREG-0654, Supplement 3 (1996) only discusses evacuation or sheltering in the context of a general emergency. NUREG-0654, Supplement 3 (1996) at 1-3. The document states that “[t]he general emergency class involves actual or imminent substantial core degradation or melting with the potential for loss of containment. The preferred initial protective action for this class is to evacuate immediately about 2 miles in all directions from the plant and about 5 miles downwind, unless other conditions make evacuation dangerous.” *Id.* The Applicant’s EP states that it is consistent with this guidance. The EP states that “[a]t a *General Emergency* classification, Turkey Point will provide the state and counties with [Protective Action Recommendations (PARs)] for the public. For incidents involving actual, potential, or imminent releases of radioactive material to the atmosphere, EPA 400-R-92-001 and NUREG-0654, Supplement 3, are

---

<sup>19</sup> See <http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr0654/r1/s3/>.

used for the basis for the general PARs.” EP, Part 2 at J-7 (emphasis in original). Further, the EP provides a flow chart depicting the PAR in the event of a general emergency showing that evacuation will commence at 0-2 miles (complete radius) and 2-5 miles (downwind). Beyond those distances, sheltering is called for. *Id.* at J-10. Thus, it appears from the Applicant’s EP that both sheltering and evacuation is called for within certain distances of the plant. Petitioners fail to explain why the Applicant’s proposed evacuation plan is inadequate or otherwise fails to meet the guidance of NUREG-0654. “[P]etitioners must do more than submit ‘bald or conclusory allegation[s]’ of a dispute with the applicant. They must ‘read the pertinent portions of the license application, including the Safety Analysis Report and the Environmental Report, state the applicant’s position and the petitioner’s opposing view,’ and ‘explain[] why they have a disagreement with [the applicant].’” *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Unit 2), LBP-03-12, 58 NRC 75, 81 (2003) (Internal citations omitted). Because CASE’s petition fails to explain how the EP deviates from the cited NUREG-0654 guidance or is otherwise inadequate, CASE fails to show that a genuine dispute exists with the application, contrary to 10 C.F.R. § 2.309(f)(1)(vi).

Additionally, the provisions of 10 C.F.R. § 50.47(b)(10) require that sheltering be considered in developing the range of protective action recommendations in the emergency plan.<sup>20</sup> The COL application includes a discussion of these required considerations. See EP at Part 2, Section J. CASE fails to address why this discussion is inaccurate or inadequate, nor does it provide factual support for such a dispute, contrary to 10 C.F.R. § 2.309(f)(1)(v) and (vi). Alternatively, to the extent that CASE is

---

<sup>20</sup> The appropriateness of consideration of sheltering is also addressed in other NRC guidance documents: “[A] licensee’s emergency plan, implementing procedures, and notification forms need to include the consideration of sheltering consistent with Federal guidance.” NRC Regulatory Issue Summary 2004-13, at 3.

seeking to dispute the appropriateness of considering sheltering in the emergency response, that dispute constitutes an impermissible challenge to NRC regulations and cannot be the basis of an admissible contention. See 10 C.F.R. § 2.335. Where a “contention and its foundational support impermissibly challenge statutory requirements or the basic structure of the Commission’s regulatory program, [that contention raises] a matter that is not within the scope of [the] proceeding and fail[s] to establish a genuine dispute on a material issue of law or fact.” See 10 C.F.R. § 2.309(f)(1)(iii), (vi).” *Tennessee Valley Auth.* (Bellefonte Nuclear Power Plant, Units 3 and 4), LBP-08-16, 68 NRC 361, 389 (2008). For the above reasons, this basis does not support the admissibility of Proposed Contention 2.

With respect to Basis 4, CASE asserts that “[t]hese [population] figures do not include seasonal visitors, migrant workers, or people attending sports events and visiting parks and tourist attractions.” Amended Petition at 17. However, the COL application states that it accounts for these categories of persons in the Evacuation Time Estimate (ETE) study. In that study, the application states that it considers transient populations, employees, and special events. See EP, Supplemental Information 1, at 3-3 to 3-10.

Thus, to the extent that CASE is asserting the application is deficient for not including “seasonal visitors, migrant workers, or people attending sports events and visiting parks and tourist attractions,” Amended Petition at 17, that assertion does not support a genuine dispute with the application, contrary to 10 C.F.R. § 2.309(f)(1)(vi), because the application asserts that these categories of persons are included in the estimates used in the emergency plan and CASE identifies no basis to challenge those

statements.<sup>21</sup> In determining contention admissibility, a “bald assertion...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.” *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-98-7, 47 NRC 142, 180 (1998). Accordingly, this basis does not support the admissibility of Proposed Contention 2.

With respect to Basis 5, CASE asserts that “[e]vacuation from a nuclear plant is far different from other events,” because people will respond differently to an emergency involving a nuclear power plant than they would for some other event. Amended Petition at 23. CASE questions whether “there will be sufficient gasoline for that many cars” and whether “the station owners or manager will stay around given the threat to themselves and their families,” and states that “[i]t is an impossible situation. Build the reactors somewhere else.” *Id.* According to CASE, “[e]xperience and studies have shown that in extreme evacuation situations the public will not follow an orderly procedure” and “[p]anic and fear prevail and any attempt at planned evacuation is impossible, especially in a nuclear event.” *Id.* at 22. CASE also suggests that trained workers would not carry out assigned duties during an emergency and would simply join any evacuation, and that evacuations would be characterized by “over-response” even to non-“catastrophic” events. *Id.* at 22-23. Additionally, CASE asserts that “[b]y adding two nuclear reactors to the two already at Turkey Point, the possibility and probability of a nuclear event is

---

<sup>21</sup> It is unclear from the petition whether CASE is, with this statement, describing what is encompassed by its own Table 1 data, *see id.* at 16-17, or if it is instead asserting a disagreement with the population estimates found in the application. To the extent that CASE’s statement in Basis 4 is intended to describe what is encompassed by the Petition’s own data from its Table 1, *see* Amended Petition at 16-17, it fails to demonstrate that the statement is material to the findings the NRC must make to support the action that is involved in the proceeding, contrary to 10 C.F.R. § 2.309(f)(1)(iv).

increased exponentially. And, an event would not have to be catastrophic; even a rumor of a significant leak of radio active [sic] gas or vapor could cause panic in the area. Also, since there are two non-nuclear power plants at Turkey Point, a nuclear event could result in shutting them down also due to lack of workers and operators who would most likely not be willing to stay or return to a radioactive site.” *Id.*

To the extent these statements purport to address the “probability” of a nuclear event and shutdowns of the existing units, CASE does not explain how these statements relate to the rest of the contention. Furthermore, CASE provides no facts or expert support for these statements and does not explain how they contradict the applicant’s evacuation plan, contrary to 10 C.F.R. § 2.309(f)(1)(v) and (vi). Accordingly, they neither provide support for Proposed Contention 2 nor represent a separate admissible contention. The sole support CASE references for any of these assertions is “[a] study into the human response in the aftermath of TMI ... [titled] ‘Evacuation Behavior in Response to Nuclear Power Plant Accidents,’ by Donald Zeigler and James Johnson, Jr. in the May, 1984 issue of *The Professional Geographer*.” *Id.* at 23-24. However, CASE fails to explain why the quoted excerpts from this article constitute any specific disagreement with an assumption, analysis or conclusion in the application, much less demonstrate an inadequacy in the emergency plan.<sup>22</sup> Rather, CASE’s statements in Basis 5 appear to amount to little more than a vague, generalized claim that evacuation plans in response to a radiological release from a nuclear power plant are not “realistic,” rather than any specific dispute with the Turkey Point plan. See, e.g., Amended Petition at 25. Without identifying any specific disagreement with the application itself, contrary

---

<sup>22</sup> CASE did not file a copy of this study with the petition and it is not electronically available without a subscription. The Staff has not further assessed its potential relevance to the propositions for which it is cited since, as explained above, the Petition has not explained how it supports any specific disagreement with the application.

to 10 C.F.R. § 2.309(f)(1)(vi), this basis does not support the admissibility of Proposed Contention 2.

With respect to Basis 6, that the evacuation plan does not protect the “health and safety of the public,” because it does not meet the requirements of the Atomic Energy Act, 10 C.F.R. § 50.47, and “does not follow NUREG 0654 guidelines,” CASE has simply copied the language of 10 C.F.R. § 50.47 into the petition and paraphrases NUREG-0654. See Amended Petition at 13, 16, 19-22. The assertions CASE makes regarding NUREG-0654 have been discussed *infra*, and for similar reasons fail to provide support for the proposed contention. With respect to the requirements of 10 C.F.R. § 50.47, CASE does not specify how any portion of the COL application fails to comply with any provision of that regulation.

The Petition’s failure to identify a genuine dispute with the application is highlighted by information in the application describing consideration of both 10 C.F.R. § 50.47 and NUREG-0654. For example, the Applicant provides cross-reference tables showing where in the COL application information can be found that addresses aspects of 10 C.F.R. § 50.47, NUREG-0654, and other applicable regulations and guidance documents. See EP, Supplemental Information 2, Turkey Point Plant (PTN) COLA Emergency Plan Regulatory Requirements Matrix (Rev 0), at Table 2, p. 8 (regarding 10 C.F.R. § 50.47); and Supplemental Information 5, NUREG-0654 Section II, Evaluation Criteria Cross-Reference to Florida Radiological Emergency Management Plan (REMP) & Appendix II, Turkey Point Nuclear Site, at 2-17 (regarding NUREG-0654). Having failed to identify any specific disagreement with the application itself, contrary to 10 C.F.R. § 2.309(f)(1)(vi), this basis does not support the admissibility of Proposed Contention 2.

Lastly, CASE makes a “[p]etitioner’s closing statement[],” that makes general assertions regarding why Turkey Point Units 6 & 7 are unnecessary and why the location

of Turkey Point is inappropriate. See Amended Petition at 25-26. None of CASE's assertions in its "closing statement" is supported by any expert fact or opinion. "NRC case law does not permit admission of contentions when petitioners 'offer[] no tangible information, no experts, no substantial affidavits,' but instead submit only 'bare assertions and speculation.'" *Entergy Nuclear Vermont Yankee, LLC* (Vermont Yankee Nuclear Power Station), LBP-06-20, 64 NRC 131, 190 (2006) (citing *GPU Nuclear Inc., Jersey Central Power & Light Company, and Amergen Energy Company, LLC* (Oyster Creek Nuclear Generating Station), CLI-00-6, 51 NRC 193, 208 (2000)). CASE does not reference the COL application to identify how this "closing statement" – even if correct – contradicts any assumption, analysis, or conclusion therein, contrary to 10 C.F.R. § 2.309(f)(1)(vi). See *Millstone*, LBP-08-9, 67 NRC at 433. Accordingly, this statement does not support the admissibility of Proposed Contention 2.

For the foregoing reasons, Proposed Contention 2 is inadmissible.<sup>23</sup>

C. PROPOSED CONTENTION 3:

Failure and omission [sic] of the FPL COL for the proposed Turkey Point Nuclear reactors 6 & 7 by releasing aerosol with 471.6 tons of particulates into the atmosphere annually.

Amended Petition at 26. In Proposed Contention 3, CASE asserts that the cooling towers for the new units "will evaporate 41.5 MGD of water which will include 943 tons annually of particulates) [sic] when sea water is used and 55 tons annually of particulates when recycled water is used annually which will be suspended in aerosol dispersed [sic] over the surrounding area." *Id.* at 27. The contention refers to an "FPL model diagram" which CASE says "shows the dispersion of that vapor in a neat pattern

---

<sup>23</sup> For the same reasons discussed in footnote 17, *supra*, neither the Stoddard Declaration nor the Stoddard CV supports the admissibility of Contention 2.

around the plant assuming average wind conditions.” *Id.* CASE asserts that “the average does not fully reflect the many days when the wind blows from the SE at 15 to 25 MPH for hours on end,” which CASE states “would carry the now condensed and concentrated residue over the employees at Turkey Point and the 187,000 people within 10 miles of Turkey Point and over 65,000 acres in agriculture in south Miami-Dade County.” *Id.* The contention quotes what CASE refers to as an “FPL public notice” describing estimated particulate emissions from the cooling towers, “small serice [sic] water cooling towers and diesel engines[.]” *Id.* at 28.<sup>24</sup>

CASE states that “[w]hile the aerosol from Turkey Point 6&7 will meet air quality standards, the absolute concentrated amount of particulate falling in the area will be create [sic] health and air quality problems for those who work at the plant and at near by [sic] Biscayne National Park and for area residents and visitors.” *Id.* According to CASE: “While the particulate concentration will be 5 mcg/cu liter [sic], far below the State permitted limit of 150 mcg/cu liter. [sic] But the cumulative impact on local workers and residents from continued exposure to a particulate which includes residue from treated waste must be considered.” *Id.* at 28.

The contention further asserts that “[t]he particulate will include pesticides, human and animal growth hormones, home and industrial chemicals, and many carcinogens,” and CASE lists what it asserts are “some of the chemicals which will be found in the particulate in the aerosol” from the Unit 6 and 7 cooling towers, including what CASE describes as “a partial list [sic] the contaminants found in municipal waste water.” *Id.* at 28-31.

---

<sup>24</sup> The contention subsequently references similar, but not identical, text from a “notice” that CASE describes as having “appeared in the Miami Herald on April 23, 2010.” Amended Petition at 31.

CASE contends that “[t]his operation of the cooling towers will violate the criteria of protect(ing) the health and safety [sic] of the public prescribed by the Atomic Energy Act of 1954.” *Id.* at 27.

Staff Response: Proposed Contention 3 is inadmissible because it fails to explain why this issue is material to the findings that the NRC must make in this proceeding; is unsupported by alleged facts or expert opinion; and fails to identify a genuine dispute with the application regarding a material issue of law or fact. See 10 C.F.R. § 2.309(f)(1)(iv)-(vi).

Although the brief statement of the contention generally alleges a “failure and omission” [sic] of the “FPL COL,” the contention’s subsequent references indicate that CASE is asserting a safety contention arising under the Atomic Energy Act (AEA), rather than an environmental contention. See Amended Petition at 26-28, 30-31. Other than the AEA, the only NRC authority cited is 10 C.F.R. § 52.79, which defines the contents of a COL application’s final safety analysis report (FSAR). The only portion of the Application that CASE cites is an excerpt from the Turkey Point COL FSAR regarding water chemistry. *Id.* at 30-31. However, the AEA provisions cited by CASE regarding public health and safety (and the associated NRC requirements concerning the content of a COL FSAR) relate to *radiological* health and safety. See, e.g., *Silkwood v. Kerr-McGee*, 464 U.S. 238, 249 (1984); *Pac. Gas & Elec. v. ERCDC*, 461 U.S. 190, 205 (1983); *New Hampshire v. Atomic Energy Comm’n*, 406 F.2d 170, 175 (1<sup>st</sup> Cir. 1969). CASE does not explain how any of the substances or particulate releases described in the contention present issues of *radiological* health and safety, nor does it specify what regulation thus requires the FSAR to discuss the release or effects of such particulates. Accordingly, it does not explain what law or regulation makes this contention material to the findings that the Staff must make in its safety review, contrary to 10 C.F.R. § 2.309(f)(1)(iv).

CASE also does not identify facts or expert opinion or other sources and documents on which it intends to rely to support the basic premises of its contention. Particularly in light of the contention's statement that "aerosol from Turkey Point 6&7 will meet state air quality standards" and that "the particulate concentration will be...far below the State permitted [sic] limit," Amended Petition at 28, the contention provides no support, factual or otherwise, for its claim that the particulate would "create health and air quality problems" for plant workers or nearby residents. *Id.* CASE likewise cites no basis for its assertion that residue would be carried over the area "within ten miles of Turkey Point and over 65,000 acres in agriculture," *id.* at 27, or that "accumulated particulate could threaten health by being absorbed in the fruit and vegetable growing there." *Id.* at 32. Indeed, page 8 of the slide presentation that CASE attaches to its petition (and describes as a presentation by FPL on August 13, 2010) states that "the maximum deposition occurs within the FPL site and the industrial wastewater treatment facility" and that "the aerosol drift outside of FPL property is lower than natural background deposition that occurs in south Florida." See "Turkey Point Units 6 & 7 Nuclear Project," Presentation by Steve Scroggs, FPL Senior Director, and Ken Kosky, Golder Associates, dated August 13, 2010, at 8.

CASE lists substances that it characterizes as "contaminants found in municipal waste water" and lists citations to several journal articles, and it quotes a portion of the FSAR describing chemicals used in the circulating water system. Amended Petition at 28-31. However, the Amended Petition does not describe what connection exists between these listed substances and postulated particulate releases from the proposed Turkey Point units, or what adverse health effects CASE believes would result if deposition of any of the listed substances were to occur. In determining contention admissibility, 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.” *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-98-7, 47 NRC 142, 180 (1998) (citing *Georgia Institute of Technology* (Georgia Tech Research Reactor, Atlanta, Georgia), LBP-95-6, 41 NRC 281, 305, *vacated in part and remanded on other grounds*, CLI-95-10, 42 NRC 1, *aff’d in part*, CLI-95-12, 42 NRC 111 (1995) (A petitioner is obligated “to provide the [technical] analyses and expert opinion” or other information “showing why its bases support its contention.”)). In addition, the petition does not explain how any of the cited articles (or quotes from the FSAR) supports such concerns about health and safety. Attaching a document in support of a contention without any explanation of its significance does not provide an adequate basis for a contention. See *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-98-10, 47 NRC 288, 298-99 (1998). Accordingly, the contention does not satisfy 10 C.F.R. § 2.309(f)(1)(v).

Finally, the contention does not identify a genuine dispute with the application regarding a material issue of law or fact. CASE quotes a single portion of the FSAR but does not specify any portion of that section with which it disagrees or explain how any of the articles CASE cites contradict the application. “[P]etitioners must do more than submit ‘bald or conclusory allegation[s]’ of a dispute with the applicant. They must ‘read the pertinent portions of the license application, including the Safety Analysis Report and the Environmental Report, state the applicant’s position and the petitioner’s opposing view,’ and ‘explain[] why they have a disagreement with [the applicant].” *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Unit 2), LBP-03-12, 58 NRC 75, 81 (2003) (Internal citations omitted). Furthermore, even if Proposed Contention 3 were instead construed as asserting an environmental issue under the National Environmental Policy Act – contrary to the only legal authority cited in the contention – it

fails to identify a specific dispute with any analysis or conclusion in the Environmental Report. Given that CASE itself states that particulate releases will meet state air quality standards (and may indeed be “far below” permissible limits), Amended Petition at 28, CASE fails to specify what plausible health effects it contends have been overlooked, much less why these effects would be of possible significance to the result of the proceeding, contrary to 10 C.F.R. § 2.309(f)(1)(iv). See *Nuclear Management Co., LLC* (Monticello Nuclear Generating Plant), LBP-05-31, 62 NRC 735, 748-49 (2005) (“‘Materiality’ requires that the petitioner show why the alleged error or omission is of possible significance to the result of the proceeding. This means that there must be some significant link between the claimed deficiency and either health and safety of the public, or the environment”). Having likewise failed to identify how consideration of the asserted emissions would potentially contradict the FSAR or ER, the contention does not establish that there is a genuine dispute with the application on a material issue, contrary to 10 C.F.R. § 2.309(f)(1)(vi).

For the foregoing reasons, Proposed Contention 3 is inadmissible.

D. PROPOSED CONTENTION 4:

The COL fails to completely address the radiation exposure that would be caused by a radiological accident. Specifically, there is no radiation dosage given for persons a) fishing and/or b) consuming marine-based food.

Amended Petition at 32. CASE appears to be challenging Section 7.2.3.2 of the environmental report (ER) included with the COL application because that reference is provided as a preliminary statement to the proposed contention.<sup>25</sup> *Id.* CASE excerpts

---

<sup>25</sup> Earlier in its Amended Petition, CASE includes a brief “List of Contentions,” and on that list Contention 4 is instead characterized as “Failure and omission [sic] of the FPL COL for the proposed Turkey Point nuclear reactors 6&7 to adequately [sic] consider and plan for accidents (Continued...)”

statements from the ER that CASE asserts “are evidence of omitted dosage calculations.” *Id.* These alleged statements refer to radiation exposure pathways and note that the MACCS2 code “only calculates the dose from drinking the water,” and that “[s]urface water exposure pathways involving swimming, fishing, boating, and performing activities near the shoreline are not modeled by MACCS2.” *Id.* at 33. CASE further asserts that “[s]horeline activities of all kinds represent a large, fundamental part of the Miami-Dade tourist-based economy. Because of the climate conditions, these shoreline activities attract many residents and numerous tourists year-round. There then exists an elevated potential for large numbers of people to receive a higher-than-background dose of radiation after a radiological accident.” *Id.* CASE’s basis for this proposed contention is that “[t]he use of an inappropriate or inadequate computer code to evaluate radiological hazards cannot be used as an excuse to avoid calculating the dosage to large at-risk population through one of the most likely and concentrated exposure pathways. Therefore, omitting the analysis of these exposure pathways for shoreline activities is unacceptable and renders the application incomplete.” *Id.*

*Staff Response:* Proposed Contention 4 is inadmissible because it is unsupported by alleged facts or expert opinion and fails to identify a genuine dispute with the application regarding a material issue of law or fact. See 10 C.F.R. § 2.309(f)(1)(v)-(vi).

CASE provides no support for its assertion that the applicant’s analysis of shoreline activities is “unacceptable and renders the application incomplete.” Amended Petition at 33. Nor does CASE provide support for its assertion that the MACCS2 code is “inappropriate or inadequate.” *Id.* “[P]etitioners must do more than submit ‘bald or

---

involving radioactive materials.” Amended Petition at 10. For the purposes of responding to this proposed contention, the Staff assumes that this contention challenges the adequacy of the ER.

conclusory allegation[s]' of a dispute with the applicant. They must 'read the pertinent portions of the license application, including the Safety Analysis Report and the Environmental Report, state the applicant's position and the petitioner's opposing view,' and 'explain[ ] why they have a disagreement with [the applicant].'" *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Unit 2), LBP-03-12, 58 NRC 75, 81 (2003) (Internal citations omitted).

In this contention, CASE quotes and criticizes several sentences from the first and second paragraphs of the applicant's ER analysis of surface water exposure pathways in Section 7.2.3.2, see ER at 7.2-5. However, it then fails to address the remainder of that same second paragraph of the ER. In that second paragraph, the Applicant states that the dose contributions from the submersion and shoreline exposure pathways are "much less than for drinking water and consuming aquatic foods, especially at estuary sites." *Id.* The same paragraph also explains the Applicant's analysis of the aquatic food exposure pathway. *Id.* These analyses and conclusions rely, in part, on analysis and findings in NUREG-1437, "Generic Environmental Impact Statement for License Renewal of Nuclear Plants" (GEIS). *Id.* That same paragraph in the ER also explains the Applicant's determination that, based on comparison with the operating plants examined in the GEIS, the doses from surface water sources associated with Turkey Point (using the AP1000 design) "would be considerably lower than those reported [in the ER] for the surface water exposure pathway." ER at 7.2-5. Because CASE's petition fails to explain why it disagrees with the applicant's rationale regarding the significance of doses from surface water pathways, including those that CASE claims are omitted from the application, CASE fails to show that a genuine dispute exists with the application, contrary to 10 C.F.R. § 2.309(f)(1)(vi).

Moreover, other than vague generalizations about the importance of "shoreline activities of all kinds" to the "Miami-Dade tourist-based economy," CASE fails to provide

any factual or expert support to indicate that doses from the pathways it describes would be significant to the analysis or conclusions in the ER. Amended Petition at 33.

Consequently, even if CASE were correct that ER did not address the surface water pathways that CASE asserts are omitted, the contention would fail to comply with 10 C.F.R. § 2.309(f)(1)(v).

For the foregoing reasons, Proposed Contention 4 is inadmissible.

E. PROPOSED CONTENTION 5

The FPL COL application for two new nuclear reactors at Turkey Point must be considered invalid – both the FSAR (for instance Chapter 2) and also the ER analyses (these matters are relevant to nearly every chapter of the ER) because neither considers and neither incorporates any scientifically valid projection for sea level rise through this century and beyond. Doing so will dramatically diminish and likely negate the viability of this proposal.<sup>26</sup>

Amended Petition at 33. In support of Proposed Contention 5, CASE relies on a statement from Dr. Harold Wanless (“Wanless Statement”), which is provided both in the text of the contention and as an attachment to the petition, along with Dr. Wanless’s curriculum vitae. Dr. Wanless states that he is a “Registered Florida Professional Geologist” and is Chair of the Science Committee of the Miami-Dade County Climate Change Advisory Task Force. Amended Petition at 36, 34.<sup>27</sup> Through the Wanless Statement, CASE asserts that incorporation of this projection of sea level rise is “expressly required by 10 CFR 52.79.” *Id.* at 33.

---

<sup>26</sup> Earlier in the Amended Petition, under the heading “List of Contentions,” CASE states this contention as “Failure and Omission [sic] of the FPL COL for the proposed Turkey Point Nuclear Reactors 6&7 analysis to consider or incorporate any scientifically valid projection for sea level rise and climate change through the end of this century and beyond.” Amended Petition at 10-11.

<sup>27</sup> Although the statement of Dr. Wanless is attached to the Amended Petition as a separate document, because it is included in the text of the Amended Petition with only minor revisions to its introduction, all citations in the Staff’s response refer to the page of the Amended Petition on which the assertions occur.

In his statement, Dr. Wanless opines that “[s]ea level has been rising at an accelerated rate since about 1930 (Wanless et al., 1994)” and that “[a]ll climate and sea level assessments agree that ice melt, and sea level rise will be accelerating into the next century.” *Id.* at 34. Dr. Wanless claims that this “rising sea level will have significantly have [sic] changed the coastal environments, base-level elevations, storm surge patterns, and population and demographics of southeast Florida by the time the proposed units come on line – and rising sea level will dramatically diminish southeast Florida and it [sic] population by the end of the century.” *Id.* at 35.

Dr. Wanless’s statement subsequently makes five assertions that appear to be offered as the bases for Proposed Contention 5. These include: (1) “[i]ncorporating future sea level changes will affect the population trends for the south Florida area and as such the future power needs” (“Basis A”); (2) “[i]ncorporating future sea level changes will change the viability of a nuclear power complex that is increasingly isolated from the mainland and sitting in the middle of a combined Biscayne/Florida Bay” (“Basis B”); (3) “[i]ncorporating future sea level changes will change the safety of the complex during major storms and terrorist threats” (“Basis C”); (4) “[i]ncorporating future sea level changes will dramatically change the ability of the associated cooling complex to function and to remain isolated from and prevent harm to the adjacent marine environment” (“Basis D”); and (5) “[i]ncorporating future sea level changes will change the ability of the complex to contain any nuclear accidents.” (“Basis E”) *Id.* Although addressed individually in the discussion below, these assertions, even when considered together, do not constitute an admissible contention.

Staff Response: Proposed Contention 5 is inadmissible because it does not explain why this issue is material to the findings that the NRC must make in this proceeding; is insufficiently supported by alleged facts or expert opinion; and fails to

identify a genuine dispute with the application regarding a material issue of law or fact.

10 C.F.R. § 2.309(f)(1)(iv)-(vi).

CASE, through the statement of Dr. Wanless, cites multiple references to support its claims that climate change is occurring and that, as a result, sea level is rising. Amended Petition at 33-34. However, the Petitioners fail to identify facts or expert opinion or other sources and documents on which they intend to rely to support the five specific assertions on which Proposed Contention 5 is ultimately based.<sup>28</sup>

In addition to Dr. Wanless's own statement, the CASE petition references several articles. *Id.* at 35-36. A number of articles in CASE's reference list are specifically referenced to support claims that climate change is occurring and that sea level is rising. CASE also quotes a "Statement on Sea Level in the Coming Century" issued by the Science Committee of the Miami-Dade County Climate Change Advisory Task Force ("Committee Statement") for the proposition that sea level rise may be "at least 3-5 feet by the end of the century." *Id.* at 34.

However, CASE does not explain how any of these cited references support the five key bases for the contention. Namely, CASE does not explain how any of these references address "population trends for the south Florida areas and...future power needs," the "viability" or "safety" of the proposed new units, "the ability of the associated

---

<sup>28</sup> For a contention to be found admissible, the NRC's regulations require petitioners to, *inter alia*, provide a concise statement of the alleged facts or expert opinions, including references to specific sources and documents, that support the petitioner's position and upon which the petitioner intends to rely at the hearing. See 10 C.F.R. 2.309(f)(1)(v). CASE provides statements from Dr. Wanless in support of proposed Contention 5. However, because the key assertions in the contention appear to concern not the likelihood of sea level rise but rather its significance for the adequacy of FPL's evaluation of population trends, future power needs, nuclear safety, nuclear cooling systems, and nuclear accidents, it is not apparent why Dr. Wanless's experience as a registered geologist would constitute expertise in any of these areas. It is likewise not apparent in what way his position as Chair of the Science Committee would serve to make him an expert on such topics. Indeed, Dr. Wanless does not specifically identify himself as an expert in these areas. *Compare* Wanless Statement *with* Stoddard Declaration.

cooling complex to function and to remain isolated from and prevent harm to the adjacent marine environment,” or the “ability of the complex to contain any nuclear accidents.” *Id.* at 35.<sup>29</sup> Petitioners also list an article written by Dr. Wanless, et al. titled “Sea level control on stability of Everglades wetlands,” but provide no explanation of its subject matter, or its relationship to any of the contention’s stated bases. *Id.* at 36. The Commission requires Petitioners to submit “supporting information and references to specific documents and sources that serve to establish the validity of the contention.” *Amergen Energy Co., LLC (Oyster Creek Nuclear Generating Station)*, CLI-06-24, 64 NRC 111, 118-19 (2006). In determining a contention’s admissibility, “attaching a document in support of a contention without any explanation of its significance does not provide an adequate basis for a contention.” *Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation)*, LBP-98-10, 47 NRC 288, 298-99 (1998). Here, CASE has attached or referenced documents with no explanation of how they support the five bases for the contention. These accordingly fail to support the contention’s admissibility under 10 C.F.R. § 2.309(f)(1)(v).

The only other supporting document which CASE references in this Contention is a “Circular” of the United States Army Corps of Engineers (USACE). Amended Petition at 34. CASE suggests that consideration of future sea-level change is incorporated into USACE Civil Works programs and asserts that “[s]urely a major addition to a nuclear power plant facility should fall under similar scrutiny.” *Id.* at 34. However, CASE does

---

<sup>29</sup> The Staff notes that while it is not specifically quoted in the Amended Petition, the Science Committee Statement attached to the Petition asserts that “[a] further 2-foot sea level rise by the end of the century...would make life in south Florida very difficult for everyone. Committee Statement at 3. The Statement, however, makes no conclusions about “south Florida population trends” or “future power needs” that would address Basis A of proposed Contention 5. The Statement likewise claims that “Turkey Point will be an offshore island,” *id.* at 3, but this assertion alone provides no information regarding the “viability of a nuclear power complex” that would support Basis B of proposed Contention 5.

not explain in what way the USACE Circular establishes requirements relevant to a COL application, how it relates to any NRC regulations, or how it otherwise supports the bases listed for Proposed Contention 5. Accordingly, CASE does not demonstrate why the USACE Circular's direction is material to the findings the NRC must make on the proposed action, contrary to 10 C.F.R. § 2.309(f)(1)(iv), nor how it relates to any of the five asserted bases for the contention, contrary to 10 C.F.R. § 2.309(f)(1)(v).

In determining contention admissibility, 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." *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-98-7, 47 NRC 142, 180 (1998) (citing *Georgia Institute of Technology* (Georgia Tech Research Reactor, Atlanta, Georgia), LBP-95-6, 41 NRC 281, 305, *vacated in part and remanded on other grounds*, CLI-95-10, 42 NRC 1, *aff'd in part*, CLI-95-12, 42 NRC 111 (1995) (A petitioner is obligated "to provide the [technical] analyses and expert opinion" or other information "showing why its bases support its contention.")). Here, because CASE has not demonstrated that any of its alleged facts or referenced documents support the stated bases for its contention, and because the statement of Dr. Wanless also does not provide adequate support for the articulated bases for this contention, Proposed Contention 5 fails to comply with 10 C.F.R. 2.309(f)(1)(v).

Moreover, to demonstrate an admissible contention, a petitioner must show why analysis of the asserted impact could make a difference in the outcome of the proceeding. See 10 C.F.R. § 2.309(f)(1)(iv); *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 333-34 (1999) (citing 54 Fed. Reg. at 33,172) (A "dispute at issue is 'material' if its resolution would 'make a difference in the outcome of the licensing proceeding.'"); see also *Nuclear Management Co., LLC*

(Monticello Nuclear Generating Plant), LBP-05-31, 62 NRC 735, 748-49 (2005) (“Materiality’ requires that the petitioner show why the alleged error or omission is of possible significance to the result of the proceeding. This means that there must be some significant link between the claimed deficiency and either health and safety of the public, or the environment”). Here, Dr. Wanless has not articulated why, even assuming the accuracy of his projections regarding potential future sea level rise, such sea level rise would make a difference to any specific aspect of FPL’s evaluation of population trends, future power needs, nuclear safety, nuclear cooling systems, and nuclear accidents. Accordingly, CASE has not demonstrated why its broad assertions regarding the implications of sea level rise would be material to the Staff’s findings on the application, contrary to 10 C.F.R. § 2.309(f)(1)(iv).

For similar reasons, Proposed Contention 5 also fails to identify a genuine dispute with the application regarding a material issue of law or fact. The contention states that neither the FSAR nor the ER “considers and ... incorporates any scientifically valid projection for sea level rise through this century and beyond.” Amended Petition at 33. “A contention must...identify the disputed portion of the application, and provide ‘supporting reasons’ for the challenge to the application. Similarly, if a petitioner believes that an application fails to contain information on a ‘relevant matter as required by law,’ the contention must identify each failure and the supporting reasons for the petitioner’s belief.” *USEC Inc. (American Centrifuge Plant)*, CLI-06-10, 63 NRC 451, 456 (2006). As explained above, the Petition does not provide support for its claim that the application’s analyses regarding the topics listed in its five bases regarding the proposed reactors would be affected by further consideration of a “scientifically valid projection for sea level rise.” Amended Petition at 33. Nor, other than a bare reference to 10 C.F.R. § 52.79, does CASE explain what specific safety or environmental requirement has not been met. See *Sacramento Mun. Util. Dist. (Rancho Seco Nuclear Generating Station)*,

LBP-93-23, 38 NRC 200, 246 (1993) (“A contention that simply alleges that some matter ought to be considered does not provide the basis for an admissible contention.”).

Therefore, Proposed Contention 5 does not articulate a concrete, material dispute for litigation and thus does not provide the basis for an admissible contention, contrary to 10 C.F.R. § 2.309(f)(1)(vi).

CASE thus does not clearly identify what information or analysis it alleges has not been provided in the application, much less why it renders the application inadequate. Moreover, although the Contention purports to take issue with “both the FSAR [] and also the ER analyses,” except for a single vague reference to the FSAR – “(for instance Chapter 2)”<sup>30</sup> – the Petitioners fail to indicate to what portion of either document the alleged missing information would relate. Amended Petition at 33. Without explaining the asserted significance of sea level rise for the topics raised in its five proposed bases, Proposed Contention 5 fails to articulate a genuine, material dispute for litigation, contrary to 10 C.F.R. § 2.309(f)(1)(vi).

For the foregoing reasons, Proposed Contention 5 is inadmissible.

F. PROPOSED CONTENTIONS 6 AND 7:

Petitioners present Proposed Contentions 6 and 7 together with an introduction beginning on page 37 of the Amended Petition. At the root of both contentions is the Petitioners’ statement that “Florida is in the Southeast Compact which does not have a disposal site to which it can send Class B and C, or Greater than C ‘low-level’ radioactive waste.”

Amended Petition at 38. For the purposes of addressing the admissibility of Proposed

---

<sup>30</sup> In fact, long term trends in sea level rise are discussed in Chapter 2 of the FSAR (§ 2.4.5.2). Although CASE mentions chapter 2 of the FSAR, it fails to specify any portion of that chapter or the discussion in section 2.4.5.2 with which it disagrees or to explain how any of the references CASE cites contradict the application, contrary to 10 C.F.R. § 2.309(f)(1)(vi). Likewise, proposed Contention 5 fails to identify a specific dispute with any analysis or conclusion in the Environmental Report. Long term trends in sea level rise are noted in ER section 2.3.1.1. CASE fails to identify a specific dispute with this discussion and fails to specify what environmental effects it contends have been overlooked, much less why the application is inadequate for not addressing them.

Contentions 6 and 7, the Staff reads each proposed contention to include this combined introduction. The Staff understands Proposed Contention 6, because it references several portions of the Applicant's ER, as being proffered as an environmental contention. The Staff understands Proposed Contention 7, which references portions of the Applicant's FSAR, as being proffered as a safety contention.

In support of both Proposed Contention 6 and Proposed Contention 7, Petitioners have attached the declaration of Diane D'Arrigo, who asserts that she is an expert on "the policy aspects and general technical characteristics of so-called 'low-level' radioactive waste." See "Declaration of Diane D'Arrigo" (D'Arrigo Declaration) at 1. Bases proffered by the Petitioners through the D'Arrigo Declaration which appear to relate only to environmental concerns will be addressed in the Staff's response to Proposed Contention 6, while any bases which appear to relate only to safety concerns will be addressed in the Staff's response to Proposed Contention 7. As explained below, a number of the proffered bases in the Amended Petition's text and in the D'Arrigo Declaration do not appear to provide support for either Proposed Contention 6 or 7, and the Staff therefore addresses these bases jointly with respect to both contentions.

Although some of the bases articulated in the D'Arrigo Declaration support the admissibility of Proposed Contention 7, the D'Arrigo Declaration also includes a number of assertions which are outside the scope of this proceeding, are beyond the scope of Proposed Contentions 6 and 7 as stated, are not material to the findings which the staff must make regarding the COL application, or fail to state a genuine dispute with the Applicant on a material issue of law or fact and cannot serve as appropriate bases for an admissible contention. These assertions relate to details regarding disposal and/or storage of low-level radioactive waste (LLRW) at the Waste Control Specialists (WCS) facility, considerations related to greater-than-class-C radioactive waste, and compliance with 10 C.F.R. Part 61 and other regulatory provisions which are not applicable to the

Turkey Point COL application. D'Arrigo Declaration, *passim*. As discussed in detail below, the assertions made by CASE regarding these subject matter areas do not satisfy the requirements of § 2.309(f)(1) and should be excluded from the scope of Proposed Contentions 6 and 7 if the contentions are otherwise admitted.

1. PROPOSED CONTENTION 6:

The Florida Power and Light (FPL) COL application is inadequate because the Environmental Report (Chapter 3 section 3.5.3) assumes that the classes B and C so-called "low-level" radioactive waste (LLRW) generated by proposed Turkey Point Units 1 and 2 will be promptly (e.g., in approximately two years) shipped offsite and fails to address the environmental impacts in the event that PEF [sic] will need to manage such LLW on the Turkey Point site for a more extended period of time. In addition it is assumed that extended storage and forms of so called "low-level" waste management on the site that might be triggered by or associated with extended storage, such as processing, treatment or possible burial or incineration will have no environmental impact – and FPL omits any reference to these in Chapter 5 of the ER, Environmental Impacts.

Amended Petition at 39.<sup>31</sup>

Staff Response: Proposed Contention 6 is admissible in part and inadmissible in part. The Staff does not oppose the admissibility of Proposed Contention 6 as a contention of omission to the extent that the Petitioners have asserted the following issue: because there is currently no access to an offsite LLRW disposal facility for the proposed Units 6 and 7 and because it is reasonably foreseeable that LLRW generated by normal operations will need to be stored at the site for longer than the two-year period contemplated in the ER, the analysis in the Applicant's ER is insufficient because it fails

---

<sup>31</sup> Proposed Contention 6 erroneously refers to Turkey Point Units 1 and 2 (instead of Units 6 and 7 which are the subject of this COL application). It also erroneously refers to the need for "PEF" to manage such LLRW on the Turkey Point site although the applicant in this proceeding is Florida Power and Light (FPL), not Progress Energy Florida (PEF). The following Staff response to proposed Contention 6 does not further address these errors, instead treating the proposed contention as if properly pled to reference the FPL COL application for Units 6 and 7.

to address the environmental impacts in the event that the applicant will need to manage Class B and Class C LLRW on the Turkey Point site for a more extended period of time.<sup>32</sup> *Cf. Progress Energy Florida, Inc.* (Combined License Application, Levy County Nuclear Power Plant, Units 1 and 2), CLI-10-02, 71 NRC \_\_\_, (slip op. at 24). However, the remaining issues raised in this contention are inadmissible because they are not material to the decisions the NRC must make, lack adequate factual or expert support, or fail to demonstrate a genuine dispute with the Applicant on a material issue of fact or law. 10 C.F.R. §§ 2.309(f)(1)(iv)-(vi).<sup>33,34</sup>

*a. Synergistic Health and Physical Chemical Impacts*

As noted above, the Petitioners have attached the declaration of Diane D'Arrigo as additional support for Proposed Contention 6. In this Declaration, Ms. D'Arrigo states "[i]f the COL is approved and the reactors operate, a given amount of source term in radioactive waste will be generated, as well as hazardous waste. Synergistic health and

---

<sup>32</sup> In support of Contention 6 the Petitioners cite no regulatory authority indicating that such an analysis is required to be submitted as part of the Applicant's ER. Although the Petitioners do cite the National Environmental Policy Act (NEPA) in a general discussion earlier in their Amended Petition, see Amended Petition at 6-8, neither the language of Contention 6, the bases articulated for Contention 6, the introductory material for Contentions 6 and 7, nor the Declaration of Diane D'Arrigo assert that the analyses alleged to be missing from the ER are required pursuant to NEPA or any NRC regulations implementing NEPA. Nevertheless, because the Petitioners do assert that such an analysis is required in the Staff's EIS, the Staff does not oppose the admissibility of a portion of the contention, as delineated above.

<sup>33</sup> In their Petition, the Petitioners note that "[t]he information, references and bases of Contention 4-SA are incorporated here by reference." Amended Petition at 39. The Amended Petition does not contain a "Contention 4-SA," and Petitioners do not explain what "information, references and bases" are associated with this unidentified contention. As the Staff is not aware of any information, references or bases submitted in connection with proposed Contention 6 other than the Petition and the D'Arrigo Declaration, no other information is considered in the Staff's response.

<sup>34</sup> To the extent that the Petitioners intend Contention 6 to be a challenge to the assumptions of Table S-3, 10 C.F.R. § 51.51, this is an impermissible challenge to Commission regulations and cannot serve as a basis for the admissibility of proposed Contention 6. See 10 C.F.R. § 2.335; *Tennessee Valley Auth.*, (Bellefonte Nuclear Power Plant, Units 3 and 4), CLI-09-03, 69 NRC 68, 75 (February 17, 2009).

physical chemical impacts have not been considered or evaluated.” D’Arrigo Declaration at ¶ 32. As a threshold matter, neither the Petition nor the Declaration of Ms. D’Arrigo indicates what types of “[s]ynergistic health and physical chemical impacts” could be expected to occur from storage of the radioactive waste. Assuming this portion of the Declaration is intended to assert environmental impacts from storage of LLRW, neither the Petition nor the Declaration explain how these unspecified impacts would have environmental significance attributable to the proposed action and related to storage of LLRW, or why those effects would be material to the decision on the application. 10 C.F.R. § 2.309(f)(1)(iv); *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 333-34 (1999) (citing 54 Fed. Reg. at 33,172) (A “dispute at issue is ‘material’ if its resolution would ‘make a difference in the outcome of the licensing proceeding.’”) Here, Petitioners have not articulated what significant potential impact of the proposed action has been overlooked. Accordingly, the Petition fails to demonstrate that the issue is material to the findings that the NRC must make to support its environmental review, contrary to 10 C.F.R. § 2.309(f)(1)(iv). Consequently, with respect to these arguments the Petitioners likewise do not explain how analysis of these issues would controvert any analysis or conclusion in the ER. Accordingly, these bases of Proposed Contention 6 do not represent a genuine, material dispute with the application, contrary to 10 C.F.R. § 2.309(f)(1)(vi). See *Sacramento Mun. Util. Dist.* (Rancho Seco Nuclear Generating Station), LBP-93-23, 38 NRC 200, 246 (1993) (“A contention that simply alleges that some matter ought to be considered does not provide the basis for an admissible contention.”).

*b. Impacts of Burial, Incineration, Water Use, and Unintended or Routine Releases*

In asserting that the ER should address any environmental impacts associated with extended storage of LLRW, Petitioners also state that “[o]f particular importance in

an analysis of environmental impacts are any treatment or other processes that FPL may use to concentrate or otherwise alter this waste stream. Of particular concern is any plan to bury on-site<sup>35</sup> or incinerate this material – both of which may be disguised by other names, such as ‘heat treat’ or ‘pyro process.’” Amended Petition at 39-40. Petitioners further assert that “[w]e are concerned that some processing such as incineration and accumulated large amounts of radioactive waste could affect safety, environment [sic] and exposure rates.” D’Arrigo Declaration at ¶31. However, the Amended Petition provides no support for the proposition that, if long-term onsite storage of LLRW were to occur, either onsite burial or incineration would be likely methods employed by the applicant. A licensing board has stated that “mere speculation” does not provide an adequate basis for a contention. *Private Fuel Storage* (Independent Spent Fuel Storage Installation), LBP-98-7, 47 NRC 142, 241 (1998). An ER (or an EIS) need only consider environmental impacts that are “reasonably foreseeable.” *Private Fuel Storage LLC* (Independent Spent Fuel Storage Installation), CLI-02-25, 56 NRC 340, 348-9 (2002). Even if the Petitioners were correct that LLRW would be stored at the Turkey Point site for an extended period of time, neither the Petition nor the attached Declaration demonstrate that onsite burial or incineration are reasonably foreseeable. As a result, the Petitioners have not demonstrated that any consideration of environmental impacts associated with these specific activities is material to the findings that the NRC must make to support its review. Therefore, these issues cannot form acceptable bases for Proposed Contention 6.

10 C.F.R. § 2.309(f)(1)(iv).

---

<sup>35</sup> To the extent that the Petitioners allege here that the Applicant should provide the information necessary to obtain a license for disposal under 10 C.F.R. Part 61, that aspect of the contention is inadmissible for the reasons addressed *infra*.

Furthermore, the Petitioners assert that “[t]he special location of the site on water deserves deeper evaluation from the perspective of exorbitant water use, to potential contamination by routine releases and unintended possible radioactive and heat releases from reactor and waste processing, treatment and/or storage operations.” D’Arrigo Declaration at ¶ 34. Ms. D’Arrigo also asserts that “[t]he fact that there is another reactor in the same watershed should be factored in.” *Id.* In what appears to be a related claim, the text of the Amended Petition also states that “a so-called ‘low-level’ waste storage plan must anticipate the possible inundation of the site during a storm surge in the not-so-distant future,” that “[w]e have huge bodies of government – both local, regional, national and international projecting that the sea level is going to be significantly different at Turkey Point during the term of the proposed licenses for Units 6 and 7,” and that a plan to store waste outdoors on a concrete pad “is an example of the sort of situation that could result in the unplanned, wide dispersal of radioactive materials from Turkey Point, beyond the Turkey Point site boundary.” Amended Petition at 40-41. The Amended Petition asserts that “[t]he lack of inclusion of a thorough analysis of the potential for elevated storm surge, site inundation and the possible dispersal of so-called ‘Low-Level’ waste off the TP site violates 52.79(iii) [sic] and would jeopardize the health, safety and well being of CASE member [sic] and TP workers as well as the general public and the biome of South Florida.” *Id.* Further, the Amended Petition states that “[t]he elevated inundation of the Turkey Point site with extended storage, and therefore decades accumulation of so-called “Low-Level” waste (either processed or not) has not been adequately analyzed in the FPL ER Chapter 2, section 7 or the site description in chapter 3, or in the sections on radiological consequences in Chapter 5, section 4.” *Id.* The Petitioners also assert that the ER should address “[t]he risk of ever-stronger hurricanes in this location and consequences of dispersal of the large amounts of radioactivity that would accumulate as all the Class B, C and Greater than C waste is

stored onsite has not been adequately addressed.” D’Arrigo Declaration at ¶ 35. Ms. D’Arrigo also states that “[t]his site has already had challenges to the integrity of its LLRW storage and these could be massively exacerbated with more frequent and stronger storms, hurricanes, rising water, and other environmental, security and safety related problems.” D’Arrigo Declaration at ¶ 29.

Other than the Declaration of Ms. D’Arrigo, Petitioners have referenced no facts or expert opinion to support any of these statements. However, none of Ms. D’Arrigo’s assertions concerning these particular bases supports the admission of this contention. Ms. D’Arrigo provides no support for the proposition that hurricanes or storms will be stronger and more frequent. Ms. D’Arrigo’s statement that “[t]he special location of the site on water deserves deeper evaluation from the perspective of exorbitant water use, to potential contamination by routine releases and unintended possible radioactive and heat releases from reactor and waste processing, treatment and/or storage operations,” neither explains how any of these considerations relate to management of LLRW nor explains how the location of the site should affect the level of detail included in the ER. D’Arrigo Declaration at ¶ 34. The Declaration does not explain in what way “exorbitant water use” has any bearing on LLRW, nor what “potential contamination” or “releases” she alleges could occur. A statement “that merely states a conclusion (e.g., the application is ‘deficient,’ ‘inadequate,’ or ‘wrong’) without providing a reasoned basis or explanation for that conclusion,” even if made by an expert, “is inadequate because it deprives the board of the ability to make the necessary, reflective assessment of the opinion. . . .” *USEC, Inc. (American Centrifuge Plant)*, CLI-06-10, 63 NRC 451, 472 (2006)(internal citations omitted).

*c. Impacts of Storm Surge*

As noted above, both the Amended Petition text and the D’Arrigo Declaration suggest that the possible inundation of the site due to storm surge could result in

dispersal of low level waste. See Amended Petition at 40; D'Arrigo Declaration at ¶¶ 29, 35. However, the Petitioners do not explain why such a scenario is plausible, or why it would be "reasonably foreseeable" so as to warrant consideration rather than being simply remote and speculative or a "worst-case scenario." See, e.g., PFS, CLI-02-25, 56 NRC at 348-9. Ms. D'Arrigo does not explain the basis for asserting that there is a "risk of ever-stronger hurricanes" or why such a risk would be expected to increase the "consequences of dispersal" of potential LLRW stored onsite. See D'Arrigo Declaration at ¶ 35. Nor do the Petitioners provide any factual or expert support to explain the relationship the Petitioners imply between stronger storms and unspecified "other environmental, security, and safety related problems." D'Arrigo Declaration at ¶ 29. Ms. D'Arrigo does not identify to what previous "challenges to the integrity" of FPL's LLRW storage she refers, much less in what way they could be "massively exacerbated" with stronger storms.<sup>36</sup> *Id.* It appears that the Petitioners are asserting that storm surge could inundate the site and result in the dispersal of low level waste to such an extent that it would have significant impacts on the environment, and that, therefore the impacts from such events should be examined in the ER. However, for the reasons stated above, the Petitioners have not demonstrated that this issue is material to the findings the Staff must make on the application, nor provided sufficient factual or expert support

---

<sup>36</sup> To the extent Ms. D'Arrigo's reference to "this site [having] already had challenges to the integrity of its LLRW storage" seeks to raise concerns regarding the existing Turkey Point units, CASE does not demonstrate that such challenges are within the scope of the COL proceeding, contrary to 10 C.F.R. § 2.309(f)(1)(iii). In any event, Ms. D'Arrigo does not explain why such past concerns at the existing units would therefore be material to assessment of the safety or environmental impacts of the proposed new units, contrary to 10 C.F.R. § 2.309(f)(1)(iv).

for their assertions, contrary to 10 C.F.R. § 2.309(f)(1)(iv), (v). Consequently, this alleged basis does not support the admissibility of Proposed Contention 6.<sup>37</sup>

*d. Impacts Associated With Other Reactors*

Third, neither the referenced Declaration nor the Petition has articulated in what way the presence of another reactor “in the same watershed” would be likely to have any impacts on the proposed new units and have described no synergistic effects which they expect to occur between the location of the proposed new units and that of any other reactors. D’Arrigo Declaration at ¶¶ 34; see *Rancho Seco*, LBP-93-23, 38 NRC 200, 246. Neither the Petition nor the D’Arrigo Declaration indicates what environmental or health impacts, if any, could be expected from dispersal of LLRW or from routine releases “from reactor and waste processing, treatment and/or storage operations.” D’Arrigo Declaration at ¶¶ 34. Nor, assuming that such releases would occur, do the Petitioners articulate why any resulting impacts would likely be significant and thus warrant analysis in the ER. To support a contention, “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.” *PFS*, LBP-98-7, 47 NRC at 180 (*citing Georgia Institute of Technology* (Georgia Tech Research Reactor, Atlanta, Georgia), LBP-95-6, 41 NRC 281, 305, *vacated in part and remanded on other grounds*, CLI-95-10, 42 NRC 1, *aff’d in part*, CLI-95-12, 42 NRC 111 (1995) (A petitioner is obligated “to provide the [technical] analyses and expert opinion” or other information “showing why its bases support its contention.”)).

---

<sup>37</sup> The only regulation that the Petitioners cite in this regard is “52.79(iii),” which does not correspond to any subsection of 10 C.F.R. § 52.79 and in any event does not relate to the Staff’s environmental review.

e. *Summary*

In sum, with respect to their assertions regarding the effects of “synergistic health and physical chemical impacts,” onsite burial, incineration, water use, unintended or routine releases, storm surge, and interactions with other reactors, the Petitioners have not specified what “reasonably foreseeable” environmental effects they believe have been overlooked. *PFS*, CLI-02-25, 56 NRC at 348-9. Furthermore, even if such effects are reasonably foreseeable, NRC regulations indicate that impacts need only be discussed in proportion to their significance. See 10 C.F.R. § 51.45(b)(1). Here, the Petitioners have not explained how any of the effects they assert, even if reasonably foreseeable, would be environmentally significant. Accordingly, for both of these reasons, the Petitioners have failed to demonstrate that the issues they raise are material to the findings the NRC must make on the application, contrary to 10 C.F.R. § 2.309(f)(1)(iv). See *Oconee*, CLI-99-11, 49 NRC at 333-34. Consequently, with respect to these arguments the Petitioners likewise do not explain how analysis of these issues would controvert any analysis or conclusion in the ER. Accordingly, these bases of Proposed Contention 6 do not represent a genuine, material dispute with the application, contrary to 10 C.F.R. § 2.309(f)(1)(vi). See *Rancho Seco*, LBP-93-23, 38 NRC at 246.

For the foregoing reasons, Proposed Contention 6 is inadmissible.

2. PROPOSED CONTENTION 7:

FPL's application (FSAR Chapter 11, section 4.6) is inadequate because the Safety Analysis Report assumes that the Class B and C so-called "low-level" radioactive waste generated by the proposed Turkey Point Units 6 & 7 will be promptly (e.g. in approximately 2 years per the AP1000 DCD: page 11.4-6 ) shipped offsite despite lack [sic] access for disposal. The FSAR fails to address compliance with Part 20 and Part 50 Appendix I (ALARA) in the event that PEF [sic] will need to manage such waste on the Turkey Point Site for a more extended period of time, possibly its entire licensed operating period or longer.

The invocation of a letter with a third party for off-site management of waste generated by Turkey Point 6 and 7 does not validate that an actual transfer of title and physical transfer of the waste will occur; return of such waste to the Turkey Point site is required in the absence of disposal site access. The waste could come back from 3rd party processors since they are only licensed to store for 365 days and have limited storage capacity.

In order to meet the requirements of 52.79, NRC staff must be able to assess "a level of information sufficient to enable the Commission to reach a final conclusion on all safety matters that must be resolved by the Commission before issuance of a combined license," 10 CFR 52.79(a)(3) specifies that the FSAR must include: "The kinds and quantities of radioactive materials expected to be produced in the operation and the means for controlling and limiting radioactive effluents and radiation exposures within the limits set forth in part 20 of this chapter."

Amended Petition at 41. The Petitioners provide two bases specifically in support of Proposed Contention 7. First, Petitioners assert that the Application fails to "address compliance with Part 20 and Part 50 Appendix I (ALARA) in the event that PEF [sic] will need to manage such waste on the Turkey Point Site for a more extended period of time." *Id.* Second, the Petitioners assert that the Application fails to meet the requirements of 10 C.F.R. 52.79(a)(3) by failing to "offer any details whatsoever about waste management and storage beyond two years." Amended Petition at 43. As support for Proposed Contention 7, the Declaration of Diane D'Arrigo states that "some so-called 'low-level' radioactive waste can give high doses of radiation if one is exposed unshielded" and "[i]t is imperative that the safety and security issues of permanent on-site storage/de-facto disposal of radioactive waste be addressed in FPL's COL application." D'Arrigo Declaration at ¶ 9.

Staff Response: Proposed Contention 7 is admissible in part and inadmissible in part. The Staff does not oppose the admissibility of Proposed Contention 7 to the extent that the Petitioners assert the following issue: because, in the event a disposal facility for Class B and Class C low level radioactive waste (LLRW) is unavailable after two years of operation and such accumulated LLRW from Units 6 and 7 exceeds the planned storage capacity, the Applicant's plan for managing such LLRW relies solely on transfer to the Studsvik facility; therefore, the Applicant's plan for management of Class B and Class C low level radioactive waste (LLRW) is insufficient to satisfy 10 C.F.R. § 52.79(a). However, the remaining issues raised in this contention are inadmissible because they are not material to the findings the NRC must make regarding the application, lack adequate factual or expert support, or fail to demonstrate a genuine dispute with the Applicant on a material issue of fact or law. 10 C.F.R. §§ 2.309(f)(1)(iv), (v) and (vi).

a. *Design Requirements and the Process Control Program (PCP)*

In support of Proposed Contention 7, Petitioners cite the requirements of 10 C.F.R. § 52.79(a)(3), stating that "the FSAR must include: 'The kinds and quantities of radioactive materials expected to be produced in the operation and the means for controlling and limiting radioactive effluents and radiation exposures within the limits set forth in part 20 of this chapter.'" Amended Petition at 41. The Petitioners assert that the FPL COL application "fails to offer any details whatsoever about waste management and storage beyond two years," "in violation of 10 C.F.R. 52.79." *Id.* at 43. In this regard, the D'Arrigo Declaration states:

[t]he applicant must provide greater detail about the amount of waste, its condition, the processes it will undergo, how it will be stored and where, considering the likelihood that extended onsite waste management will be necessary. Will storage be in buildings, and if so what will the structures be? If outside, exposed to the elements, how will safety and security be assured? Where will the storage area or building(s) be located? Will they be within the "protected" area? What treatment options will be carried out onsite and where?

and

FP&L cannot show that it meets any of the standards without supplying details regarding how the waste will be managed and stored. FP&L has not shown that it will meet the provisions of applicable regulations including 10 CFR 20, 10 CFR 30, 10 CFR 50, 10 CFR 10 CFR 61, 10 CFR 71, 40 CFR 190 and 49 CFR 171-180 with regard to the radioactive waste Turkey Point 6 & 7 will produce.

D'Arrigo Declaration at ¶¶ 28 and 29.

However, a Licensing Board recently granted summary disposition on a similar contention. *Southern Nuclear Operating Co.* (Vogtle Electric Generating Plant, Units 3 and 4) LBP-10-08, 71 NRC \_\_\_ (slip op. at 13). The Board concluded that section 52.79(a)(3) did not require the detailed design, location, and health impacts information asserted in the contention.<sup>38</sup> *Id.*; see also *Progress Energy Florida, Inc.* (Combined License Application for Levy County Nuclear Power Plant, Units 1 and 2; Memorandum and Order (Ruling on Joint Intervenors' Motion to File and Admit New Contention 8A), August 9, 2010 (dissenting opinion of Dr. Anthony J. Baratta). Therefore, to the extent that Proposed Contention 7 asserts that this level of detail is required in a COL application with respect to a contingency plan for management of LLRW, it is not material to the findings the NRC must make in this proceeding and cannot form the basis for an admissible contention. 10 C.F.R. § 2.309(f)(1)(iv).

The Petitioners also assert that the Application fails to “address compliance with Part 20 and Part 50 Appendix I (ALARA) in the event that PEF [sic] will need to manage such waste on the Turkey Point Site for a more extended period of time.” They

---

<sup>38</sup> Specifically, the contention in that proceeding alleged that in order to satisfy § 52.79(a)(3) the applicant's FSAR needed, with respect to the applicant's contingency plan for extended onsite storage of LLRW, to include “details regarding ‘building materials and high-integrity containers,’ exact location, [and] health impacts on employees.” *Vogtle*, LBP-10-08, 71 NRC \_\_\_ (slip op. at 13).

subsequently list a number of regulations, including 10 C.F.R. Part 20 and 10 C.F.R. Part 50, stating that “[t]he following regulations are offered as a context of the level of consideration and analysis that the NRC must engage with in order to ‘reach a final conclusion on all safety matters . . . before issuance of a combined license . . .’ these include: 10 CFR 20, 10 CFR 30, 10 CFR 50, 10 CFR 61, 10 CFR 71, 10 CFR 100, 40 CFR 190 and 49 CFR 171-180.” Amended Petition at 44. However, the Petition also states “Petitioner is not framing the contention with respect to these regulations, merely noting them since a certain level of specificity is required in a plan in order for the NRC to make a ‘final conclusion’ with respect to all of these relevant regulations.”<sup>39</sup> *Id.* Therefore, here the Staff will address only the Petitioners’ assertions that the Application fails to address compliance with 10 C.F.R. Part 20<sup>40</sup> and 10 C.F.R. Part 50.

The Petitioners assert that “any and all future treatment and processing that could add to the routine and accidental radioactive and chemical releases and exposures from the operation of the reactors, management of high and so-called ‘low-level’ radioactive waste and all of the accompanying activities, is necessary in order to

---

<sup>39</sup> The Staff notes that Ms. D’Arrigo’s Declaration asserts that “FP&L has not shown that it will meet the provisions of applicable regulations including 10 CFR 20, 10 CFR 30, 10 CFR 50, 10 CFR 10 CFR 61, 10 CFR 71, 40 CFR 190 and 49 CFR 171-180 with regard to the radioactive waste Turkey Point 6 & 7 will produce.” D’Arrigo Declaration at ¶ 29. However, as explained above, the Staff considers the text of the Amended Petition itself to clarify and supersede that broader assertion. As explained above the Staff considers the Petitioners’ claim to be limited to asserting that the FSAR does not comply with 52.79(a) because it does not adequately address compliance with Part 20 and Part 50 Appendix I (ALARA). However, to the extent the Amended Petition (through the D’Arrigo Declaration) is asserting that other regulations have not been met, such a claim has not been explained or supported and is not admissible. 10 C.F.R. § 2.309(f)(1)(iv)-(vi).

<sup>40</sup> The NRC staff recognizes that 40 C.F.R. Part 190 contains the EPA’s regulations implementing the requirements of 10 C.F.R. § 20.1301(e); however, the Staff is addressing the contention in accordance with the language of the Petition which indicates that CASE is concerned solely with compliance with 10 C.F.R. Part 20 and 10 C.F.R. Part 50.

assess the compliance with both 10 CFR 20 (for both workers and the public) as well as ALARA (10 CFR 50 Appendix I).” Amended Petition at 43.

Through the D’Arrigo Declaration, the Petition further states “[w]e need to know how much waste will be processed and stored, what processing will be done, the kind of containers that would be used and how they are certified for storage and transport. Without specifying which of the NUREG-0800 and other guidance options FP&L intends to use for processing, management and storage compliance cannot be evaluated or assured by the public or the NRC.” D’Arrigo Declaration at ¶ 30.

Section 11.4.6 of the FSAR addresses the Applicant’s Process Control Program, which describes the operational controls used for processing of waste prior to disposal as follows:

This section adopts NEI 07-10 (Reference 201) which is currently under review by the NRC staff. The Process Control Program (PCP) describes the administrative and operational controls used for the solidification of liquid or wet solid waste and the dewatering of wet solid waste. Its purpose is to provide the necessary controls such that the final disposal waste product meets applicable federal regulations (10 CFR Parts 20, 50, 61, 71, and 49 CFR Part 173), state regulations, and disposal site waste form requirements for burial at a low level waste (LLW) disposal site that is licensed in accordance with 10 CFR Part 61.

Waste processing (solidification or dewatering) equipment and services may be provided by the plant or by third-party vendors. Each process used meets the applicable requirements of the PCP.

FSAR (Revision 0), Section 11.4.6 at 11.4-1.<sup>41</sup> The D’Arrigo Declaration addresses the PCP only by asserting that “[t]he Process Control Program, while explaining temporary storage, does not explain how the application will comply with the need for permanent disposal of long-lasting radioactive in the absence of licensed disposal facilities for Classes B, C and Greater-Than-C waste.” D’Arrigo Declaration at ¶ 10. However, the

---

<sup>41</sup> The Staff notes that the separate Staff review of NEI-07-10, referenced in this section of the FSAR, has been completed. See NEI 07-10A, Rev. 0, dated March 31, 2009 (ADAMS Accession No. ML091460627).

PCP by its own terms is only directed at the “administrative and operational controls” for how waste is to be processed in preparation for disposal; the Petitioners do not explain what regulation requires the PCP to contain an analysis of the availability of disposal sites. FSAR (Rev. 0), Section 11.4.6 at 11.4-1. Accordingly, the Petitioners do not explain why the absence of such a discussion from the PCP is contrary to any regulatory requirement and thus material to the NRC’s findings. 10 C.F.R. § 2.309(f)(1)(iv). To the extent that the Petitioners assert that processing requirements will change over time because there is currently no location for offsite storage or disposal of this waste, they have not explained why the PCP is required to address these concerns or in what way the administrative and operational controls for waste processing described are inadequate. 10 C.F.R. § 2.309(f)(1)(iv). In determining contention admissibility, “[a]ny contention that fails directly to controvert the application or that mistakenly asserts the application does not address a relevant issue can be dismissed.” *See Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Unit 3), LBP-08-9, 67 NRC 421, 433 (citing *Sacramento Mun. Util. Dist.* (Rancho Seco Nuclear Generating Station), LBP-93-23, 38 NRC 200, 247-48 (1993), *review declined*, CLI-94-2, 39 NRC 91 (1994)). Accordingly, this basis for the Contention is not admissible.

b. *Effects of Storm Surge*

As discussed in response to Proposed Contention 6, the Petitioners assert an “additional basis” regarding potential effects from “inundation of the site during a storm surge.” *See* Amended Petition at 40. A number of statements in the D’Arrigo Declaration appear to relate to this concern, and, although raised by the Petitioners specifically in connection with Proposed Contention 6 and characterized as an issue of environmental rather than safety impacts, the Staff recognizes that these concerns could be construed as asserting a safety concern related to storm surge. Therefore, to the extent that the Petitioners, through the D’Arrigo Declaration, intended to assert that

storm surge could result in safety impacts, that matter is addressed by the Staff in the following discussion.

The D'Arrigo Declaration asserts that "[t]he special location of the site on water deserves deeper evaluation from the perspective of exorbitant water use, to potential contamination by routine releases and unintended possible radioactive and heat releases from reactor and waste processing, treatment and/or storage operations." D'Arrigo Declaration at ¶ 34. She also asserts that the ER should address "[t]he risk of ever-stronger hurricanes in this location and consequences of dispersal of the large amounts of radioactivity that would accumulate as all the Class B, C and Greater than C waste is stored onsite has not been adequately addressed." D'Arrigo Declaration at ¶ 35. Ms. D'Arrigo also asserts that "[t]he fact that there is another reactor in the same watershed should be factored in," and "[t]his site has already had challenges to the integrity of its LLRW storage and these could be massively exacerbated with more frequent and stronger storms, hurricanes, rising water, and other environmental, security and safety related problems." D'Arrigo Declaration at ¶¶ 34, 29. However, even if these statements were construed as a "safety" contention directed at the FSAR, this basis is not admissible for reasons substantially similar to those already discussed in the Staff's response to Proposed Contention 6. For example, the Petitioners do not explain why such a site-inundation and LLRW-dispersal scenario is likely or even plausible. Ms. D'Arrigo does not explain the basis for asserting the "risk of ever-stronger hurricanes in this location," or explain why such a risk would be expected to increase the "consequences of dispersal" of potential LLRW stored onsite. See D'Arrigo Declaration at ¶ 35. Nor do the Petitioners provide any factual or expert support to explain the relationship the Petitioners imply between stronger storms and unspecified "other environmental, security, and safety related problems." D'Arrigo Declaration at ¶ 29. Ms. D'Arrigo does not identify to what previous "challenges to the integrity" of FPL's LLRW

storage she refers, much less in what way they could be “massively exacerbated” with stronger storms. *Id.* Consequently, to the extent the Petitioners assert that storm surge could inundate the site and result in the dispersal of low level waste to an extent that would have significant effects on safety, and that such events and their consequences should be examined in the FSAR, the Petitioners have not demonstrated that this issue is material to the findings the Staff must make on the application, nor provided sufficient factual or expert support for their assertions. 10 C.F.R. § 2.309(f)(1)(iv), (v). A statement “that merely states a conclusion (e.g., the application is ‘deficient’, ‘inadequate,’ or ‘wrong’) without providing a reasoned basis or explanation for that conclusion,” even if made by an expert, “is inadequate because it deprives the board of the ability to make the necessary, reflective assessment of the opinion . . . .” *USEC*, CLI-06-10, 63 NRC at 472.

Furthermore, the Petitioners cite to Section 11.4.6 of the Applicant’s Final Safety Analysis Report (FSAR) and to the AP 1000 DCD in concluding that the FSAR is inadequate, but point to no portions of the FSAR where the impacts of “more frequent and stronger storms, hurricanes, rising water” should be discussed.<sup>42</sup> The only other reference to any application-specific document is a statement in the D’Arrigo Declaration regarding FP&L and “its licensing documents and the AP 1000 DCD.” D’Arrigo Declaration at ¶ 27. In determining contention admissibility, “[a]ny contention that fails directly to controvert the application or that mistakenly asserts the application does not address a relevant issue can be dismissed.” *See Millstone*, LBP-08-9, 67 NRC at 433.

---

<sup>42</sup> For example, the applicant’s safety analysis regarding floods and flood design considerations is addressed in Section 2.4.2 of the FSAR; probable maximum surge and seiche flooding is discussed in FSAR Section 2.4.5; and the design basis flood protection for the safety-related structures is addressed in FSAR Section 2.4.10. [Turkey Point Units 6 & 7, COL Application, Part 2 - FSAR] The Petitioners do not cite to these sections, let alone describe why any analysis or conclusion therein is inadequate.

The Amended Petition cites no law or regulation requiring such a site-inundation and LLRW-dispersal scenario to be analyzed in the FSAR, nor does it identify or dispute portions of the FSAR that do discuss flooding considerations. Having offered no factual or expert support regarding the plausibility or safety significance of their postulated dispersal scenario, 10 C.F.R. § 2.309(f)(1)(v), CASE has not demonstrated that this alleged basis supports the admissibility of Proposed Contention 7.<sup>43</sup>

Similarly, neither the referenced Declaration nor the Petition has articulated in what way the presence of another reactor in the same watershed could have any safety-related impact on the proposed new units, nor have they identified what synergistic effects they expect to occur between the location of the proposed new units and that of any other reactors. Nor does the Declaration explain what relationship Ms. D'Arrigo is referring to between the "special location of the site" and any "potential contamination" or "unintended possible radioactive and heat releases from reactor and waste processing, treatment and/or storage operations." D'Arrigo Declaration at ¶ 34. See *Rancho Seco*, LBP-93-23, 38 NRC 200, 246 ("A contention that simply alleges that some matter ought to be considered does not provide the basis for an admissible contention."); see also *PFS*, LBP-98-7, 47 NRC at 180.

In sum, with respect to their discussion of the effects of "storm surge" or interactions with other reactors on LLRW storage, the Petitioners have not specified what plausible safety concerns they contend have been overlooked, much less why those effects would be material to the decision on the application. 10 C.F.R. § 2.309(f)(1)(iv); *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 333-34 (1999) (citing 54 Fed. Reg. at 33,172) (A "dispute at issue is

---

<sup>43</sup> The only regulation that the Petitioners cite in this regard is "52.79(iii)," which does not correspond to any subsection of 10 C.F.R. § 52.79.

‘material’ if its resolution would ‘make a difference in the outcome of the licensing proceeding.’”) Consequently, with respect to these arguments the Petitioners likewise do not explain how analysis of these issues would controvert any analysis or conclusion in the FSAR. Accordingly, these bases of Proposed Contention 7 do not represent a genuine, material dispute with the application, contrary to 10 C.F.R. § 2.309(f)(1)(vi).

Therefore, to the extent that Petitioners claim that the Applicant’s FSAR fails to provide any necessary information related to storm surge or subsequent “dispersal” of LLRW for the staff’s evaluation of the safe operation of Units 6 & 7, they have not explained why this issue is material to the NRC’s findings, identified the factual or expert support for such a claim, nor demonstrated a genuine dispute with the Applicant on a material issue of law or fact. 10 C.F.R. § 2.309(f)(1)(iv)-(vi).

*c. Additional Bases Which Do Not Support Either Proposed Contention 6 or Proposed Contention 7*

As noted above, several bases proposed in support of either Proposed Contention 6 or Proposed Contention 7 are not clearly articulated as support for either the environmental or safety concerns stated by CASE. As discussed below, the Staff opposes these additional bases, whether proffered in support of either Proposed Contention 6 or Proposed Contention 7, because they either fail to demonstrate that such considerations are within the scope of the COL proceeding, fail to demonstrate that the proffered bases are material to the decisions which the NRC will have to make, fail to adequately support the stated bases with alleged facts or expert opinion, or fail to demonstrate a genuine dispute with the Applicant on a material issue of law or fact. 10 C.F.R. § 2.309(f)(1)(iii)-(vi).

*i. Storage of LLRW at the WCS facility*

For a proposed contention to be admissible a petitioner must show that a genuine dispute exists with the applicant on a material issue of law or fact.

10 C.F.R. § 2.309(f)(1)(vi). The Declaration of Diane D'Arrigo contains several pages of discussion regarding the "Limits on the Disposal Capacity of Waste Control Specialists (WCS)" and the "Limitations on Storage Capacity of WCS." D'Arrigo Declaration at ¶¶ 11-21, 23-25. As the Petitioners do not demonstrate that the COL application makes any reference to the possible use of WCS as a disposal or storage facility for Class B, or C waste generated at the Turkey Point nuclear plant, they fail to demonstrate that their challenge to the availability of WCS as a LLRW storage or disposal option disputes any claim raised in the COL application with respect to its plan for management of LLRW. Accordingly, any references Petitioners make regarding the WCS facility cannot form part of an acceptable basis for Proposed Contentions 6 or 7 in accordance with 10 C.F.R. § 2.309(f)(1)(vi).

ii. Disposal of Greater-than-Class-C waste

The D'Arrigo Declaration states that "there is no disposal site for Greater-than-C radioactive wastes which would be generated by the Turkey Point Units 6 and 7 reactors if they operate." D'Arrigo Declaration at ¶ 5. Further, the D'Arrigo Declaration states "FPL has failed to address how its Class B, C and Greater-Than-C "low-level" radioactive waste will be disposed according to NRC regulations." D'Arrigo Declaration at ¶ 7. The Declaration also refers to the closure of the Barnwell, South Carolina disposal site and to the limited capacity of the onsite radwaste storage as additional support for claims that the applicant should be required to address handling of greater-than-class-C waste set forth in Proposed Contentions 6 and 7. D'Arrigo Declaration at ¶¶ 5 and 27. The Petitioner's claims which relate to how FPL will address storage or disposal of greater-than-class-C radioactive waste are outside the scope of this proceeding and are not material to any findings which the staff must make regarding this application.

As noted recently by the Commission in the Levy County combined license proceeding, greater-than-class-C waste “is the responsibility of the federal government” and “is not (and was not) shipped to the Barnwell facility; rather it is stored onsite with a licensee’s spent nuclear fuel.” *Progress Energy Florida, Inc.* (Combined License Application, Levy County Nuclear Power Plant, Units 1 and 2), CLI-10-02, 71 NRC \_\_\_, (slip op. at 26) (concluding that “the GTCC waste issue is outside the scope of” similar adjudicatory proceedings.) (citations omitted). See also 42 U.S.C. § 2021c(b)(1)(D); see also *Virginia Elec. and Power Co.* (Combined License Application for North Anna Unit 3), LBP-08-15, 68 NRC 294 n.86 (2008); *Tennessee Valley Auth.* (Bellefonte Nuclear Power Plant Units 3 and 4, LBP-08-16, 68 NRC 361, 414 (2008)). The Petitioner’s claims which relate to how FPL will address disposal of greater-than-class-C radioactive waste do not explain why the closure of the Barnwell facility or the capacity of the onsite radwaste storage affect the Applicant’s handling or disposal of greater-than-class-C waste. *Oconee*, CLI-99-11, 49 NRC at 333-34. Therefore, these claims cannot form the bases for admission of this portion of Proposed Contention 6 in accordance with 10 C.F.R. § 2.309(f)(1)(iii) and (iv).

iii. Compliance with 10 C.F.R. Part 61

The D’Arrigo Declaration asserts that the Applicant should meet the licensing requirements of 10 C.F.R. Part 61 for onsite land disposal because there are no offsite disposal options, stating that storage of LLRW “could likely be de-facto permanent storage at the reactor site” and “[r]ather than assume off-site disposal will become available, FPL should show that the Turkey Point Units 6 and 7 site can meet licensing criteria for disposal of the radioactive waste it generates.” See D’Arrigo Declaration, at ¶¶ 6, 7, 8, 10 and 29.

As an initial matter, the standards for the contents of COL applications do not require a COL applicant to describe how it plans to dispose of waste of any kind. See 10

C.F.R. §§ 52.79, 52.80. In its bases for Proposed Contentions 6 and 7, Petitioners point to no other NRC requirement for such a demonstration and mistakenly presume that the Application must contain one. *Id.* This mistaken presumption cannot form part of an acceptable basis for Proposed Contention 6 in accordance with 10 C.F.R. § 2.309(f)(1)(iii).<sup>44</sup>

Also, 10 C.F.R. Part 61 is applicable only as to the “land disposal of radioactive waste ... received from other persons.” 10 C.F.R. § 61.1; *See also Progress Energy Florida* (Combined License Application for Levy County Nuclear Power Plant, Units 1 and 2), LBP-09-10, 71 NRC at \_\_\_ (slip op. at 73). Therefore, that Part of the NRC’s regulations would not be applicable to onsite disposal of LLRW generated at Turkey Point by the proposed new units even for a contention framed as a question of safety. As stated by the Commission in the Bellefonte licensing proceeding, “Part 61 is inapplicable here because it applies only to land disposal facilities that receive waste from others, not to onsite facilities . . . where the licensee intends to store its own low-level radioactive waste. *Tennessee Valley Auth.* (Bellefonte Nuclear Power Plant, Units 3 and 4), CLI-09-03, 69 NRC 68, 73 (2009). Accordingly, the Petitioners’ assertion that the applicant must demonstrate compliance with Part 61 cannot form part of an acceptable basis for Proposed Contentions 6 or 7 as it is outside the scope of the proceeding, contrary to 10 C.F.R. § 2.309(f)(1)(iii).

Finally, licensing boards in both the *North Anna* and *Bellefonte* proceedings found that the issue of whether an applicant might someday require a permit under 10 C.F.R. Part 61 for a disposal facility is “too speculative” and is not “material to the

---

<sup>44</sup> In any event, because 10 C.F.R. Part 61 addresses only issues of safety, it is facially inapplicable to Contention 6, which is framed by the Petitioners as an environmental contention.

findings the NRC must make to support the action that is involved in” the COL proceeding. See *North Anna*, LBP-08-15, 68 NRC at 317; *Bellefonte*, LBP-08-16, 68 NRC at 414. For the same reasons, those aspects of Proposed Contentions 6 and 7 are inadmissible in this proceeding, as CASE has failed to show that consideration of compliance with 10 C.F.R. Part 61 is material to the findings that the Staff must make.

*Summary of Staff Response to Proposed Contentions 6 and 7:* As explained above, to the extent that the Petitioners raise the following issue: because there is currently no access to an offsite LLRW disposal facility for the proposed units and it is reasonably foreseeable that LLRW generated by normal operations will be stored at the site for longer than the two-year period contemplated in the ER, the analysis in the Applicant’s ER which fails to address the environmental impacts in the event that the applicant will need to manage Class B and Class C LLRW on the Turkey Point site for a more extended period of time is insufficient, the Staff does not oppose the admissibility of Proposed Contention 6. Also, to the extent that the Petitioners assert that, because, in the event a disposal facility for Class B and Class C low level radioactive waste (LLRW) is unavailable after two years of operation and such accumulated LLRW from Units 6 and 7 exceeds the planned storage capacity, the Applicant’s plan for managing such LLRW relies solely on transfer to the Studsvik facility; therefore, the Applicant’s plan for management of Class B and Class C low level radioactive waste (LLRW) is insufficient to satisfy 10 C.F.R. § 52.79(a), the Staff does not oppose the admissibility of Proposed Contention 7. However, Proposed Contentions 6 and 7 are otherwise inadmissible because with respect to each of their constituent bases the Petitioners either fail to demonstrate that the issue is within the scope of the proceeding, fail to explain why the issue is material to the findings that the NRC must make in this proceeding; fail to provide alleged facts or expert opinion; or fail to identify a genuine

dispute with the application regarding a material issue of law or fact. See 10 C.F.R. § 2.309(f)(1)(iii)-(vi).

G. PROPOSED CONTENTION 8:

Limited Work Authorization. CASE adds to our petition a request that NRC deny the request from FPL to begin construction of the non-nuclear portions of this project (limited work authorization, LWA). As was the case in the Levy County COL that Progress Energy filed in 2008, the damage that could be done to the Turkey Point site under a LWA is considerable. While the Levy site is “Greenfield” the construction in the location of the Turkey Point units 6 and 7 would negatively impact wetlands, coastal estuary and other sensitive areas. We offer a letter from the South Florida Water Management District (SWFMD exhibit) and the issues raised in it as the basis for this contention. We further invoke the expertise of the local water authority, though we make no claim that it is working on behalf of CASE. Please do not allow any type of construction on Turkey Point without first granting the full COL authority.

Amended Petition at 45-46.

Staff Response: Proposed Contention 8 is inadmissible because it is untimely, does not demonstrate that the issue is within the scope of the proceeding, fails to explain why this issue is material to the findings that the NRC must make in this proceeding; is unsupported by alleged facts or expert opinion; and fails to identify a genuine dispute with the application regarding a material issue of law or fact. See 10 C.F.R. § 2.309(f)(1)(iii)-(vi).

As a threshold matter, the contention is untimely. It was raised for the first time when CASE re-filed its petition on August 20, 2010, three days after the filing deadline set forth in the Notice of Hearing. CASE does not explain why the contention was not included in its initial filing (CASE simply states that it “adds [this request] to our petition”), nor does it attempt to address any of the NRC’s criteria for untimely filings. See 10 C.F.R. § 2.309(c). This failure is sufficient grounds to dismiss the contention.

The contention purports to challenge the Applicant’s request for a Limited Work Authorization (LWA) pursuant to 10 C.F.R. § 50.10(d) that was contained in the

Application as initially submitted to the NRC in June 2009. However, by letter dated November 10, 2009, FPL withdrew its LWA request. See Letter from William Maher, FPL Senior Licensing Director – New Nuclear Projects, to NRC (Nov. 10, 2009) (ADAMS Accession No. ML093170513). Since the LWA has been withdrawn by the Applicant and is thus not under Staff review in this COL proceeding, CASE has not demonstrated that the issue is within the scope of this proceeding or that it is material to the findings that the Staff must make in its review of the Application, contrary to 10 C.F.R. § 2.309(f)(1)(iii), (iv).

CASE also does not adequately identify facts or expert opinion or other sources and documents on which it intends to rely to support its contention. CASE states only that it “offer[s] a letter from the South Florida Water Management District (SWFMD exhibit) and the issues raised in it as the basis for this contention” and states that it “further invoke[s] the expertise of the local water authority, though we make no claim that it is working on behalf of CASE.” Amended Petition at 46. However, CASE fails to explain in what way the attachment supports or even addresses the contention’s assertions either of “damage that could be done to the Turkey Point site under a LWA” or that LWA activities “would negatively impact wetlands, coastal estuary and other sensitive areas.” *Id.* at 45-46. Nor does it explain why “the expertise of the local water authority” relates to the activities contemplated under the (now withdrawn) LWA. *Id.* at 46. Indeed, the referenced SWFMD letter does not appear to specifically refer to any impacts from LWA activities. Attaching a document in support of a contention without any explanation of its significance does not provide an adequate basis for a contention. See *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-98-10, 47 NRC 288, 298-99 (1998). In determining contention admissibility, “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.”

*Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-98-7, 47 NRC 142, 180 (1998) (*citing Georgia Institute of Technology* (Georgia Tech Research Reactor, Atlanta, Georgia), LBP-95-6, 41 NRC 281, 305, *vacated in part and remanded on other grounds*, CLI-95-10, 42 NRC 1, *aff'd in part*, CLI-95-12, 42 NRC 111 (1995) (A petitioner is obligated “to provide the [technical] analyses and expert opinion” or other information “showing why its bases support its contention.”)). Accordingly, the contention does not satisfy 10 C.F.R. § 2.309(f)(1)(v).

Finally, the contention does not identify a genuine dispute with the Application regarding a material issue of law or fact. As explained above, the LWA request has been withdrawn from the Application. In any event, the contention does not even specify with which LWA activities it is concerned. CASE fails to specify any portion of the Application with which it disagrees or to explain why any of the Applicant’s impact analyses or conclusions is incorrect or inadequate. The contention does not articulate a concrete, material dispute for litigation and thus does not provide the basis for an admissible contention, contrary to 10 C.F.R. § 2.309(f)(1)(vi). For the foregoing reasons, Proposed Contention 8 is inadmissible.

CONCLUSION

In view of the foregoing, CASE has demonstrated standing to intervene in this proceeding and has submitted at least one admissible contention. Therefore, pursuant to 10 C.F.R. § 2.309(a), CASE should be admitted as a party to the proceeding.

Respectfully submitted,

**/Signed (electronically) by/**

Patrick A. Moulding  
Counsel for NRC Staff  
U.S. Nuclear Regulatory Commission  
Mail Stop O-15 D21  
Washington, D.C. 20555-0001  
(301) 415-2549  
(301) 415-3725 fax  
Patrick.Moulding@nrc.gov

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

Sarah W. Price  
Russell E. Chazell  
Counsel for NRC Staff  
U.S. Nuclear Regulatory Commission  
Mail Stop O-15 D21  
Washington, D.C. 20555-0001  
(301) 415-2047 / (301) 415-5003  
(301) 415-3725 (fax)  
Sarah.Price@nrc.gov  
Russell.Chazell@nrc.gov

Dated at Rockville, Maryland  
this 13th day of September, 2010

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD PANEL

In the Matter of )  
 )  
 )  
FLORIDA POWER AND LIGHT COMPANY ) Docket Nos. 52-040 & 52-041  
 )  
(Turkey Point Nuclear Plant, Units 6 & 7) )

CERTIFICATE OF SERVICE

I hereby certify that copies of the "NRC STAFF'S ANSWER TO 'CITIZENS ALLIED FOR SAFE ENERGY, INC. PETITION TO INTERVENE AND REQUEST FOR A HEARING'" have been served on the following persons by Electronic Information Exchange on this 13th day of September, 2010:

Administrative Judge, Chairman  
E. Roy Hawkens  
Atomic Safety and Licensing Board Panel  
Mail Stop – T-3 F23  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555-0001  
E-mail: Roy.Hawkens@nrc.gov

Office of Commission Appellate  
Adjudication  
Mail Stop O-16C1  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555-0001  
E-mail: OCAAmal@nrc.gov

Administrative Judge  
Dr. Michael F. Kennedy  
Atomic Safety and Licensing Board Panel  
Mail Stop – T-3 F23  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555-0001  
E-mail: Michael.Kennedy@nrc.gov

Office of the Secretary  
ATTN: Docketing and Service  
Mail Stop: O-16C1  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555-0001  
E-mail: HEARINGDOCKET@nrc.gov

Administrative Judge  
Dr. William C. Burnett  
Atomic Safety and Licensing Board Panel  
Mail Stop – T-3 F23  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555-0001  
E-mail: William.Burnett2@nrc.gov

William C. Garner  
Gregory T. Stewart  
Nabors, Giblin & Nickerson, P.A.  
1500 Mahan Dr., Suite 200  
Tallahassee, FL 32308  
Email: bgarner@ngnlaw.com;  
gstewart@ngnlaw.com

Lawrence D. Sanders  
Mindy Goldstein  
Turner Environmental Law Clinic  
Emory University School of Law  
1301 Clifton Rd.  
Atlanta, GA 30322  
Email: Lawrence.Sanders@emory.edu;  
magolds@emory.edu

Richard Grosso  
Everglades Law Center, Inc.  
3305 College Ave.  
Ft. Lauderdale, FL 33314  
Email: Richard@evergladeslaw.org

Antonio Fernandez  
Mitchell S. Ross  
Counsel for the Applicant  
Florida Power & Light Co.  
Mail Stop LAW/JB  
700 Universe Blvd.  
Juno Beach, FL 33408  
E-mail: Antonio.Fernandez@fpl.com;  
Mitch.Ross@fpl.com

John H. O'Neill, Jr.  
Matias F. Travieso-Diaz  
Counsel for the Applicant  
Pillsbury Winthrop Shaw Pittman LLP  
2300 N Street, NW  
Washington, DC 20037-1128  
E-mail: John.O'Neill@pillsburylaw.com;  
Matias.Travieso-Diaz@pillsburylaw.com

Steven C. Hamrick  
Counsel for the Applicant  
Florida Power & Light Co.  
801 Pennsylvania Ave., Ste. 220  
Washington, D.C. 20004  
Email: Steven.Hamrick@fpl.com

Barry White  
Citizens Allied for Safe Energy  
10001 S.W. 129<sup>th</sup> Terr.  
Miami, FL 33176  
Email: bwtamia@bellsouth.net

**/Signed (electronically) by/**  
Patrick A. Moulding  
Counsel for NRC Staff  
U.S. Nuclear Regulatory Commission  
Mail Stop O-15 D21  
Washington, D.C. 20555-0001  
(301) 415-2549  
(301) 415-3725 fax  
Patrick.Moulding@nrc.gov

Dated at Rockville, Maryland  
this 13th day of September, 2010