February 10, 2012

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 and 52-041
	)	
(Turkey Point Units 6 and 7)	)	

NRC STAFF'S ANSWER TO JOINT INTERVENORS' MOTION TO AMEND CONTENTION NEPA 2.1

INTRODUCTION

Pursuant to 10 C.F.R. § 2.323 and the Atomic Safety and Licensing Board (Board) Order dated January 26, 2012 (*see Florida Power & Light Co.* (Turkey Point Units 6 and 7), ML12026A438 (Jan. 26, 2012) (unpublished order) (slip op. at 7) (Order)) the staff of the U.S. Nuclear Regulatory Commission (Staff) hereby responds to the "Joint Intervenors' Motion to Amend Contention NEPA 2.1," dated January 23, 2012 (Motion). For the reasons stated below, the Staff does not object to the admission of one portion of the proposed amended contention but does object to admission of the remainder of the contention. Therefore the Motion should be granted in part and denied in part.

BACKGROUND

On June 30, 2009, Florida Power and Light Company (FPL or Applicant), pursuant to the Atomic Energy Act of 1954, as amended, 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 M. K. Nazar to M. Johnson, NRC, dated June 30, 2009 (ADAMS Accession No. ML091830589). The Application references the standard design certification for the Westinghouse Electric Company AP1000 standard design

in 10 C.F.R. Part 52, Appendix D, as amended, including Revision 19 to the design control document (DCD). The proposed units would be known as Turkey Point, Units 6 & 7.

On June 18, 2010, the NRC published a Notice of Hearing and Opportunity to Petition for Leave to Intervene. *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, Mark Oncavage, Dan Kipnis, Southern Alliance for Clean Energy, and the National Parks Conservation Association (Joint Intervenors) submitted their Petition, through which they sought to intervene in this proceeding, on August 17, 2010. *See* Petition for Intervention (Aug. 17, 2010) (Petition). In a decision dated February 28, 2011, the Atomic Safety and Licensing Board presiding over this proceeding admitted Joint Intervenors' Contention NEPA 2.1 and granted the Petition. *See Florida Power & Light Co.* (Turkey Point Units 6 and 7), LBP-11-06, 73 NRC __ (Feb. 28, 2011) (slip op. at 40, 119).

As originally admitted by the Board, Joint Intervenors' Contention 2.1 stated:

> the ER fails to analyze and discuss the potential impacts on groundwater quality of injecting into the Floridan Aquifer via underground injection wells heptachlor, ethylbenzene, toluene, selenium, thallium, and tetrachloroethylene, which have been found in injection wells in Florida but are not listed in FPL's ER as wastewater constituent chemicals.

Id., slip op. at 36. On March 30, 2011, the Board issued an order to govern the conduct of this proceeding. *See Florida Power and Light Co.* (Turkey Point Units 6 and 7), Initial Scheduling Order and Administrative Directives (Mar. 30, 2010) (unpublished) (ML110890768) (Initial Scheduling Order).

On December 16, 2011, the Applicant submitted a revision to the Application. *See* Letter to NRC from M.K. Nazar, FPL, dated December 16, 2011 (ML11361A102). The revised

Environmental Report (ER) submitted as part of the Application lists the wastewater constituent chemicals identified in Contention NEPA 2.1 and includes analysis of the potential impacts on groundwater quality of, among other things, injecting the reclaimed cooling water containing these chemicals into the lower Floridan Aquifer via underground injection wells. *See* Application, Rev. 3, Part 3 (ER), Table 3.6.2 at 3.6-7, § 5.2.3.2.4 at 5.2-25, and § 5.2.1.1.9 at 5.2-10 to 5.2-13 (ML11362A163 and ML11362A165, respectively).

Subsequently, the Applicant filed a motion to dismiss Contention NEPA 2.1 as Moot. "Florida Power & Light Company's Motion to Dismiss Joint Intervenors' Contention 2.1 As Moot" dated January 3, 2012. On January 23, 2012, the Joint Intervenors filed a response to that Motion as well as a Motion to amend Contention NEPA 2.1. On January 26, 2012, the Board dismissed Contention NEPA 2.1 as moot and directed the Applicant and the NRC Staff to respond to the Joint Intervenors' amended contention by February 10, 2012. Order at 7.

DISCUSSION

I. Legal Standards for Contention Admissibility

The admissibility of new and amended contentions in NRC adjudicatory proceedings is governed by three regulations. These are (a) 10 C.F.R. § 2.309(f)(1), establishing the general admissibility requirements for contentions; (b) 10 C.F.R. § 2.309(f)(2), concerning new and timely contentions; and (c) 10 C.F.R. § 2.309(c)(1), concerning non-timely contentions. *See Entergy Nuclear Vermont Yankee, LLC, and Entergy Nuclear Operations, Inc.* (Vermont Yankee Nuclear Power Station), LBP-06-14, 63 NRC 568, 571-72 (2006). All contentions must comply with the general admissibility requirements in § 2.309(f)(1), which are discussed in more detail in the Staff's initial response to the Joint Intervenors original petition, as well as in the Board's ruling on contention admissibility.[1] NRC Staff Answer to "Petition for Intervention" at 6-7

[1] The requirements in § 2.309(f)(1) state that, to be admissible, a contention must:

(i) Provide a specific statement of the issue of law or fact to be raised or controverted …;

Continued…

(Sept. 13, 2010) (Staff Answer); LBP-11-06, 73 NRC__, slip op at 8-9. Failure to comply with any of these general admissibility requirements is grounds for dismissal of the contention. Final Rule, Changes to the Adjudicatory Process, 69 Fed. Reg. 2182, 2221 (Jan. 14, 2004); *see also Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-00-10, 49 NRC 318, 325 (1999).

II. Legal Standards Governing the Admission of Amended or Late-Filed Contentions

The standards governing the admissibility of contentions filed or amended after the initial deadline for filing (*i.e.,* "late-filed contentions") are set forth in the Commission's regulations. Where, as here, the Petitioners are admitted as parties to this case, consideration of the admissibility of an amended contention "is governed by the provisions of § 2.309(f)(2), as well as the general contention admissibility requirements of 2.309(f)(1)." *Pa'ina Hawaii, LLC* (Materials License Application), CLI-10-18, 72 NRC 56, 86 n.171 (2010).

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

> (i) The information upon which the amended or new contention is based was not previously available;

> (ii) Provide a brief explanation of the basis for the contention;
>
> (iii) Demonstrate that the issue raised … 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) . . .[P]rovide sufficient information to show that a genuine dispute exists with the applicant/licensee on a material issue of law or fact. This information must include references to specific portions of the application (including the applicant's environmental report and safety report) that the petitioner disputes and the supporting reasons for each dispute, or, if the petitioner believes that the application fails to contain information on a relevant matter as required by law, the identification of each failure and the supporting reasons for the petitioner's belief[.]

10 C.F.R. § 2.309(f)(1)(i)-(vi).

> (ii) The information upon which the amended or new contention is based is materially different than information previously available; and
>
> (iii) The amended or new contention has been submitted in a timely fashion based on the availability of the subsequent information.

10 C.F.R. § 2.309(f)(2). A contention that does not qualify for admission as a new contention under 10 C.F.R. § 2.309(f)(2) may still be admitted if it meets the provisions governing nontimely contentions set forth in 10 C.F.R. § 2.309(c)(1). 10 C.F.R. § 2.309(c)(1); *Amergen Energy Co.* (Oyster Creek Nuclear Generating Station), LBP-06-22, 64 NRC 229, 234 n.7 (2006); *see also Vermont Yankee,* LBP-06-14, 63 NRC at 572-75. In its initial Scheduling Order, the Board specifically directed that a "motion and proposed new or amended contention … shall be deemed timely under 10 C.F.R § 2.309(f)(2)(iii) if it is filed within thirty (30) days of the date when the new and material information on which it is based first becomes available. If filed thereafter, the motion and proposed contention shall be deemed nontimely under 10 C.F.R. § 2.309(c)." Initial Scheduling Order at 8. Therefore, even "new and material information," if available more than thirty (30) days prior to filing of new or amended contentions, may not be considered in support of their admissibility absent a showing that the factors in 10 C.F.R. § 2.309(c)(1) are met.

Under the provisions of 10 C.F.R. 2.309(c)(1), the admissibility of nontimely contentions is subject to an eight-factor balancing test that includes:

> (i) Good cause, if any, for the failure to file on time;
>
> (ii) The nature of the requestor's/petitioner's right … to be made a party to the proceeding;
>
> (iii) The nature and extent of the requestor's/petitioner's property, financial, or other interest in the proceeding;
>
> (iv) The possible effect of any order that may be entered in the proceeding on the requestor's/petitioner's interests;
>
> (v) The availability of other means whereby the requestor's/petitioner's interest will be protected;

> (vi) The extent to which the requestor's/petitioner's interests will be represented by the existing parties;
>
> (vii) The extent to which the requestor's/petitioner's participation will broaden the issues or delay the proceeding; and
>
> (viii) The extent to which the requestor's/petitioner's participation may reasonably be expected to assist in developing a sound record.

10 C.F.R. § 2.390(c)(1)(i)-(viii). Pursuant to 10 C.F.R. § 2.309(c)(2), each of the factors is required to be addressed in the requestor's nontimely filing. The first factor, whether good cause exists for the failure to file on time, is the "most important" and entitled to the most weight. *Amergen Energy Co., LLC* (License Renewal for Oyster Creek Nuclear Generating Station), CLI-09-07, 69 NRC 235, 261 (2009); *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-04-4, 59 NRC 31, 44 (2004). Good cause may be found to exist when a given contention

> (1) Is wholly dependent upon the content of a particular document; (2) could not therefore be advanced with any degree of specificity (if at all) in advance of the public availability of the document; and (3) is tendered with the requisite degree of promptness once the document comes into existence and is available for public examination.

Duke Power Co. (Catawba Nuclear Station, Units 1 and 2), ALAB-687, 16 NRC 460, 469 (1982), *cited with approval in Duke Power Co.* (Catawba Nuclear Station, Units 1 & 2) CLI-83-19, 17 NRC 1041, 1045-47 (1983). If no showing of good cause for the lateness is tendered, "petitioner's demonstration on the other factors must be particularly strong." *Texas Utilities Electric Co.* (Comanche Peak Steam Electric Station, Units 1 & 2), CLI-92-12, 36 NRC 62, 73 (1992) (quoting *Duke Power Co.* (Perkins Nuclear Station, Units 1, 2, & 3), ALAB-431, 6 NRC 460, 462 (1977)).

III. Admissibility and Timeliness of Proposed Amended Contention NEPA 2.1

A. Summary of Proposed Amended Contention NEPA 2.1

The Motion proposes to amend Contention NEPA 2.1, which was initially admitted by the Board (LBP-11-06, slip op. at 31-40) and subsequently dismissed as moot (Order at 5), as follows:

> The ER fails to adequately analyze and discuss the potential impacts on groundwater quality of injecting into the Floridan Aquifer via underground injection wells heptachlor, ethylbenzene, toluene, selenium, thallium, and tetrachloroethylene, which have been found in injection wells in Florida but are not accurately listed in FPL's ER as wastewater constituent chemicals.

Motion at 12 (emphasis in original). The proposed amended contention would thus insert the words "adequately" and "accurately" into the text of the originally admitted contention. The Joint Intervenors assert three general bases as supporting admission of the proposed amended contention. First, the Joint Intervenors claim that FPL fails to identify and describe the source or sources of the data or the methods of data collection used to generate the revised list of constituent chemical concentrations in ER Table 3.6-2. Motion at 4, 13-14; Quarles Affidavit at 2. Second, the Joint Intervenors assert that the concentrations of thallium and tetrachloroethylene exceed the Environmental Protection Agency (EPA) maximum contaminant level (MCL) in drinking water for these substances, and that the concentration of selenium nearly exceeds the EPA MCL. Motion at 6, 13; Quarles Affidavit at 7. Third, the Joint Intervenors claim that Revision 3 of the ER fails to adequately analyze and discuss whether wastewater discharged via deep well injection could migrate into the Upper Floridan Aquifer and contaminate the groundwater with the six chemicals listed in the proposed contention. Motion at 8, 13; Quarles Affidavit at 2-7. The details of these general bases are described further below in the Staff response to the proposed amended contention.

Staff Response: As explained below, the staff does not object to the admission of a narrow portion of Proposed Amended Contention NEPA 2.1, namely the portion of the

contention in which the Joint Intervenors assert that the Applicant fails to identify the source of its concentration data for heptachlor, ethylbenzene, toluene, and tetrachloroethylene. However, as explained further below, the remaining bases proposed for the proposed amended contention do not meet the timeliness criteria of 10 C.F.R. § 2.309(f)(2) or 10 C.F.R. § 2.309(c)(1), or the general contention admissibility requirements of 10 C.F.R. § 2.309(f)(1), and those aspects of the contention should be denied. Specifically, with respect to these remaining bases, the information the Joint Intervenors seek to challenge was included in the original ER such that asserted omissions could have been raised in the original Petition, and the Joint Intervenors fail to explain why the issue raised is material to the findings that the NRC must make in this proceeding and fail to demonstrate the existence of a genuine dispute with the Applicant on a material issue of law or fact. 10 C.F.R. §§ 2.309(f)(2), (c)(1), and (f)(1)(iv) and (vi).

B. Applicability of 10 C.F.R § 2.309(f)(2) and 2.309(c)(1)

In their Motion, the Joint Intervenors assert that the proposed amended Contention NEPA 2.1 satisfies the requirements of 10 C.F.R. § 2.309(f)(2), stating that the amended contention is based on Revision 3 of the Applicant's ER, which was submitted by the Applicant on December 16, 2011. Motion at 14-15. Specifically, the Joint Intervenors assert that the amended contention is based on information in ER Revision 3 which "contains the estimated concentration of additional chemical constituents that may be in the reclaimed wastewater stream and could migrate into potential drinking water sources when the wastewater is injected into the underground injection wells." Motion at 15. Further, the Joint Intervenors state that "[t]his information … differs significantly from the original ER, which wholly failed to list these constituents." *Id*. As explained below, several aspects of the contention are not timely and therefore do not support the admissibility of the contention.

In ER Revision 3, the Applicant updated Table 3.6-2, "Reclaimed Water Estimated Constituents and Concentrations Discharged to Deep Injection Wells" to include four of the six

chemicals (heptachlor, ethylbenzene, toluene and tetrachloroethylene) which were the subject of admitted Contention NEPA 2.1 and to indicate that the portions of the ER which reflected the environmental impact conclusions related to deep injection of wastewater included consideration of these new chemical constituents. *See* ER, Rev. 3, Table 3.6-2 at 3.6-7, § 5.2.3.2.4 at 5.2-25, and § 5.2.1.1.9 at 5.2-10 to 5.2-12 (ML11362A163 and ML11362A165, respectively). The Joint Intervenors contend that the additional information and analysis of the potential impacts to groundwater quality are insufficient, stating that "FPL fails to adequately discuss the impact of [all six of the] constituents on the groundwater, and instead simply asserts the impact will be SMALL without providing any explanation, discussion, or analysis." Motion at 14. The Staff agrees that the concentration information for heptachlor, ethylbenzene, toluene, and tetrachloroethylene is new in ER Revision 3. See ER, Rev. 3, Table 3.6-2.

The Joint Intervenors, however, do not acknowledge that both thallium and selenium were included in all prior versions of the ER and that no new information was provided in ER Revision 3 regarding either their expected effluent concentrations or the environmental impacts resulting from their injection into the lower Floridan Aquifer. Because these two wastewater constituents were not the subject of any part of the ER Revision 3 updates, they do not differ from the information previously available and thus cannot form a timely basis for admission of proposed amended Contention NEPA 2.1. *See* 10 C.F.R. § 2.309(f)(2).

A contention that fails to meet the criteria of 10 C.F.R. § 2.309(f)(2) can be admitted if it meets the standards of 10 C.F.R. § 2.309(c)(1). However, for information available more than thirty (30) days prior to filing the proposed amended contentions, the Joint Intervenors have not addressed the late-filing criteria of 10 C.F.R. § 2.309(c)(1). Failure to address the criteria of 10 C.F.R. § 2.309(c)(1) is a sufficient reason to find that the criteria are not met, and disregards the Board's Initial Scheduling Order. Initial Scheduling Order at 8. All of the information in the Motion to Amend Contention NEPA 2.1 related to the effluent concentrations of thallium and selenium included in ER Table 3.6-2 and the ER's assessment of their impacts was available at

the time the original contentions were filed on August 17, 2010. Indeed, nothing in the ER's analysis of impacts to groundwater quality resulting from injection of thallium and selenium into the lower Floridan Aquifer was changed in Revision 3. However, the Joint Intervenors fail to address the late-filing criteria of 10 C.F.R. § 2.309(c)(1) with respect to thallium and selenium. As a result, neither the Joint Intervenors' assertions regarding the effluent concentrations of these chemicals nor their claims regarding the adequacy of the ER's analysis of these impacts can serve as timely bases to support a claim that proposed amended Contention NEPA 2.1 is admissible. *See* 10 C.F.R. § 2.309(c)(1).

The Intervenors also complain that the ER fails to discuss the degradation products of heptachlor (heptachlor epoxide) and tetrachloroethylene (vinyl chloride and trichloroethene). Motion at 5. The Joint Intervenors have attached the affidavit of Mark Quarles, who asserts that he is "an expert in the field of investigating planned and accidental releases of environmental pollutants to the environment and evaluating the risks associated with those releases." *See* "Affidavit of Mark A. Quarles" (Quarles Affidavit) at 1. The Quarles Affidavit includes assertions regarding the toxicity of these degradation products, stating that "FP&L did not take into account the carcinogenic nature of heptachlor and failed to consider heptachlor epoxide altogether" and that "FP&L did not take into account the carcinogenic nature of tetrachloroethylene and failed to consider trichloroethene and vinyl chloride altogether." Quarles Affidavit at 6. However, to the extent that the Joint Intervenors intended that these degradation products should be included in the ER's list of chemicals that may be in the reclaimed wastewater stream, or should serve as a basis supporting the admissibility of proposed amended Contention NEPA 2.1, they have failed to explain why the asserted omission of these degradation products could not have been raised on earlier revisions to the ER, and do not demonstrate that the updated information in ER Revision 3 includes any new information that would make a contention based upon these degradation products timely under the criteria of 10 C.F.R. § 2.309(f)(2). This basis for the contention is therefore nontimely, and the Joint Intervenors have failed to address the nontimely

filing criteria, rendering assertions related to these degradation products inadmissible as support for proposed amended Contention NEPA 2.1. *See* 10 C.F.R. § 2.309(c)(1).

The Joint Intervenors also do not demonstrate how several of their complaints about potential wastewater migration are timely. The Joint Intervenors assert that "FPL continues to rely on earlier studies that failed to investigate the geologic and hydrogeologic conditions at the Turkey Point site at a depth sufficient to determine aquifer conditions, confining layer characteristics, influence on tidal conditions associated with the Straight [sic] of Florida connection to the Boulder Zone, or the occurrence of a circular flow pattern in the deep groundwater. FPL also relies upon a number of unsupported or generalized assumptions about the impenetrability of the middle confining layer, the flow rate of injected wastewater, and the presence of vertical joints." Motion at 9 (internal citations omitted). Additionally, the Joint Intervenors, through the Quarles Affidavit, make several assertions regarding the adequacy of the subsurface investigations and validity of groundwater flow rates used to support the ER's conclusions on impacts to groundwater quality resulting from deep well injection. Quarles Affidavit at 2, 5, 6. However, to the extent that the Joint Intervenors intended assertions regarding the adequacy of the Applicant's evaluation of subsurface conditions or its groundwater flow rates to serve as bases for admission of proposed amended Contention NEPA 2.1, such assertions are not timely under the criteria of 10 C.F.R. § 2.309(f)(1), because Revision 3 to the ER contains no updated or revised information regarding these analyses. In addition, although the Joint Intervenors have provided additional reports which they assert demonstrate that the Applicant's subsurface characterization and analysis of groundwater flow are faulty, these reports were available at the time the initial intervention petitions were filed and two of the three reports are referenced in the ER. ER, Rev. 0, § 2.3.1 at 2.3-16, 2.3-24 and 2.3-31; ER, Rev. 0, § 2.3.2 at 2.3-43; and ER, Rev. 0, Table 2.3-16 at 2.3-88. As explained above, the Joint Intervenors have not shown why their challenge to the Applicant's evaluation of subsurface conditions or its groundwater flow rates could not have been raised earlier, and,

therefore, these previously-available reports likewise cannot serve as timely bases for admission of this portion of proposed amended Contention NEPA 2.1. This basis for the contention is therefore nontimely, and the Joint Intervenors have failed to address the nontimely filing criteria, rendering these assertions inadmissible as support for proposed amended Contention NEPA 2.1. *See* 10 C.F.R. § 2.309(c)(1).

C. Admissibility under 10 C.F.R. § 2.309(f)(1)

In addition to the bases described above, which are inadmissible because the Intervenors fail to demonstrate their timeliness, the Joint Intervenors raise two additional bases for their contention. These concern the source of the Applicant's data and the adequacy of the ER's analysis of the environmental impacts of the six chemicals named in the initial Contention NEPA 2.1. As discussed below, while the first of these claims supports the admission of a narrow portion of the proposed amended contention, the remainder of these two bases for the contention fail to meet the general admissibility requirements of 10 C.F.R. § 2.309(f)(1).

First, the Joint Intervenors state that the ER "simply lists the purported concentration levels without discussing the source of the data or its significance." Motion at 13-14. The staff does not oppose the admission of proposed amended Contention NEPA 2.1 to the extent that the Joint Petitioners assert that the ER should identify the source of chemical concentration data for heptachlor, toluene, ethylbenzene and tetrachloroethylene which forms the basis for the ER's subsequent calculations. In this respect, the contention asserts that the accuracy and reliability of these data may depend on their source, and the omission of the source of the data from the ER is material in that it could have an effect on the determination of impact levels associated with these chemicals. Accordingly, the Staff concludes that this portion of the bases satisfies the requirements of 10 C.F.R. § 2.309(f)(1), and does not oppose the admission of proposed amended Contention NEPA 2.1 in this respect as a contention of omission.

However, the Joint Intervenors also assert that the ER "fails to describe the reasonably foreseeable environmental impacts of the six constituents." Motion at 14. The Joint Intervenors

further assert, in combination with the expert affidavit of Mr. Quarles, that the injected processed wastewater "could migrate into potential drinking water sources." Motion at 15; Affidavit at 2-7. The Joint Intervenors provide information on the toxicity of heptachlor and tetrachloroethylene. Motion at 5, 6, 14. Quarles Affidavit at 6-7. The Joint Intervenors also provide a table comparing the concentrations listed in Table 3.6-2 of the ER for the six chemicals that are the subject of the proposed amended contention to the EPA MCLs, as well as to the concentrations of these chemicals found in treated wastewater as indicated in data obtained from Central Dade County. Quarles Affidavit at 7. The Joint Intervenors state that this comparison table indicates that the wastewater constituent concentrations are "highly variable" and that, without a "comprehensive sampling plan" "the concentrations of the constituents and their resulting environmental impacts cannot be accurately determined." Quarles Affidavit at 2. As discussed below, to the extent the Joint Intervenors rely on these bases to challenge the impact analysis in the ER, they fail to explain why the issue raised is material to the findings that the NRC must make in this proceeding and fail to demonstrate the existence of a genuine dispute with the Applicant on a material issue of law of fact. 10 C.F.R. § 2.309(f)(1)(iv) and (vi).

In creating this comparison between the EPA MCLs, the chemical concentrations found in Central Dade County wastewater, and the chemical concentrations listed in ER Table 3.6-2, the Joint Intervenors fail to acknowledge that the concentrations listed in ER Table 3.6-2 are based on four cycles of concentration in the cooling process and dilution of this processed wastewater with the addition of other onsite water sources. ER at 3.4-2, 3.6-1. As indicated in the ER,

> [t]he waste effluent from the station demineralized water system, sanitary waste treatment plant, FPL reclaimed water treatment facility, filter backwash wastewater, and other nonradioactive drains throughout the station would be collected in the blowdown sump along with the blowdown from the circulating water and service water systems. The combined stream would be pumped to the deep injection wells. The combined stream would be controlled through engineering design and operational procedures

> to meet the requirements established in the underground injection control permits.

ER at 3.6-1. The values listed in ER Table 3.6-2 therefore are not an indication of the concentrations of the chemicals as they are received directly from the wastewater treatment facility, but reflect the chemical concentrations expected after the wastewater has been through the cooling system and combined with other onsite water sources. In addition, as noted in the ER, the Applicant will be receiving processed wastewater from the Miami-Dade Water and Sewer Department South District Wastewater Treatment Plant, not the Central Dade County facility upon which the Joint Intervenors' chemical concentrations are based. ER at 2.3-2; ER at 3.9-2. Therefore, because the concentrations in ER Table 3.6-2 are not expected to be the same as those in the wastewater as it is received from the treatment facility, and because the processed wastewater is received from a different wastewater treatment facility, the data cited by the Joint Intervenors does not by its own terms conflict with the values in the ER. Accordingly, the Joint Intervenors do not explain why a direct comparison between the concentrations of specific chemicals in this combined waste stream, to those found in treated wastewater from Central Dade County and their corresponding maximum contaminant levels (MCLs) represents a genuine dispute with the ER analysis. "Any 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)). Because the proposed amended contention fails to address the portion of the ER which does explain the multiple treatment processes through which the

wastewater goes, and upon which the values in Table 3.6-2 are based, it fails to demonstrate a genuine dispute with the application on a material issue, contrary to 10 C.F.R. § 2.309(f)(1)(vi).[2]

Furthermore, for heptachlor, ethylbenzene, toluene and tetrachloroethylene,[3] none of the concentrations stated in the ER is above the MCLs. In the Central Dade County data cited by the Joint Intervenors for these four chemicals, only tetrachloroethylene appears at a level in excess of the EPA MCL. Quarles Affidavit at 7. The Joint Intervenors indicate that tetrachloroethylene can be expected to occur at a concentration of 0.006 mg/L, which exceeds the MCL of 0.005 mg/L.[4] Quarles Affidavit at 7. However, even if the chemical concentrations of heptachlor, ethylbenzene, and toluene provided by the Joint Intervenors were a more accurate reflection of what should be listed in ER Table 3.6-2, and even assuming the Joint Intervenors are correct in their statements regarding the potential for "upward migration" that the Joint Intervenors assert has occurred in some parts of southern Florida from wastewater injection into the Boulder Zone, neither the Joint Intervenors nor the Quarles Affidavit explain why the environmental impacts of injecting heptachlor, ethylbenzene and toluene at concentrations below their respective MCLs would be anything other than small. Likewise, with respect to tetrachloroethylene, even assuming the concentration in the injectate were the same

[2] It appears that the Joint Intervenors believe that ER Table 3.6-2, in failing to provide a source for the initial concentrations of these chemicals in the treated wastewater, may be understating their actual concentrations. Quarles Affidavit at 2. As discussed previously, the staff agrees that the contention is admissible to the extent it asserts that the ER should identify the source of chemical data for heptachlor, toluene, ethylbenzene and tetrachloroethylene. However, for the reasons described above, the Joint Intervenors have not explained why identifying a difference between the concentrations of tetrachloroethylene in the ER and Central Dade County represents a dispute with the application.

[3] As indicated above, *see* Section III.B. of the six chemicals identified in the contention, selenium and thallium have been included in ER Table 3.6-2 through all ER revisions and the listed concentrations of these chemicals have not changed. The Joint Intervenors could have argued in their original Petition that the concentrations of thallium and selenium exceeded or approached their associated MCLs, respectively. Therefore, challenges to the analysis of these chemicals are not timely bases for an admissible contention unless the Joint Intervenors meet the requirements of 10 C.F.R. 2.309(c)(1), which the Joint Intervenors did not address in their Motion.

[4] As noted previously, Turkey Point Units 6&7 would be using treated wastewater from the Miami-Dade Water and Sewer Department South District Wastewater Treatment Plant, not the Central Dade County facility.

as that in wastewater from Central Dade County, the Joint Intervenors fail to explain how injecting this water into the Boulder Zone (even containing tetrachloroethylene at a concentration in excess of its MCL) could result in groundwater concentrations above MCLs in the event this injected water were to subsequently migrate upward to reach the Underground Source of Drinking Water.

Consistent with NEPA, 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); see also *Louisiana Energy Services, LP* (National Enrichment Facility), CLI-05-20, 62 NRC 523, 536 (2005) ("NEPA…does not call for certainty or precision, but an *estimate* of anticipated (not unduly speculative) impacts." (emphasis in original)). Moreover, NRC regulations indicate that in an ER, impacts should only be discussed "in proportion to their significance." *See* 10 C.F.R. § 51.45(b)(1); 10 C.F.R. § 2.309(f)(1)(iv); *PFS*, CLI-02-25, 56 NRC at 348-9; *see also Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), LBP-96-2, 43 NRC 61, 90 (1988); *rev'd in part on other grounds*, CLI-96-7, 43 NRC 235 (1996) ("A document put forth by an intervenor as the basis for a contention is subject to scrutiny both for what it does and does not show."). The Joint Intervenors fail to explain why, even if these chemicals are injected at the concentrations they identify, the expected impacts would be sufficiently significant to warrant additional analysis in the ER. *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.'"); s*ee also Nuclear Management Co.* (Monticello Nuclear Generating Plant), LBP-05-31, 62 NRC 735, 748-49 (2005).

The Joint Intervenors also dispute the adequacy of the Applicant's subsurface investigations and the validity of groundwater flow rates used to support the ER's conclusions on groundwater quality impacts resulting from deep well injection. Quarles Affidavit at 2, 5, 6.

The Joint Intervenors assert that a genuine dispute exists as to "whether the wastewater discharged via deep well injection will, along with these particular contaminants, migrate from the Boulder Zone to the Upper Floridan Aquifer" and that "FP&L's determination that the impact to groundwater from deep well injection would be SMALL is not based on a thorough evaluation of either the wastewater characteristics or the actual subsurface geologic conditions." Motion at 14; Quarles Affidavit at 7.

However, the Joint Intervenors fail to acknowledge that several sections of the ER discuss the potential for groundwater impacts from operation of the deep injection wells, as well as address the Florida Department of Environmental Protection permitting process and operational monitoring program required as part of an underground injection control (UIC) permit. *See, e.g.*, ER §§ 2.3.2.2.2.2; 5.2.1.1.9; 5.2.3.2.4; 6.3.3.2; 6.3.4. For example, with respect to its Chapter 2 analysis of groundwater use, the ER states that "all Class I injection wells are required to have a dual-zone monitoring system that consists of a zone open below the deepest USDW [underground source of drinking water] and a zone located in the USDW for geochemical and pressure monitoring." ER § 2.3.2.2.2.2 at 2.3-53. In its discussion regarding the "Operation of Deep Injection Wells," ER § 5.2.1.1.9, the ER acknowledges that deep injection wells utilized by Miami-Dade County have been evaluated by the EPA due to water quality issues. ER at 5.2-12. The ER also states:

> The injection wells would be installed in accordance with an FDEP underground injection well permit and local permit requirements. The injection casing in the deep injection wells for Units 6 & 7 would be seated at a greater depth than other regional injection wells to maximize the thickness of the confining strata between the injection zone and base of the USDW. The current standard practice of grouting the pilot hole would also be employed to prevent the possible development of the double borehole conditions. The data collected during drilling and testing of the exploratory well would be used to evaluate the proposed system and would be submitted to the FDEP in support of the Class I injection well construction permit application for the Units 6 & 7 deep injection wells.

> Water quality and pressure monitoring would be conducted in two separate intervals in the Floridan aquifer as mandated by the UIC permit. General UIC permit requirements include monthly reporting of the average, minimum, and maximum injection pressure, flow rate, volume, and annular pressure. The UIC permit would also require mechanical integrity tests in the injection wells to be performed every 5 years. The monitoring program objective would be to detect vertical migration of injected fluids into the Upper Floridan aquifer through the confining layer overlying the Boulder Zone. Sections 6.3 and 6.6 describe the operational monitoring of the deep injection wells.

Id.

Furthermore, a description of the monitoring program required as part of the FDEP UIC permit is provided in ER Section 6.3.4.2, which states that "[a]s presented in Section 5.2, wastewater and cooling tower blowdown would be discharged to the Boulder Zone of the Lower Floridan aquifer via deep injection wells. Twelve deep injection wells and six dual-zone monitoring wells would be operated." ER at 6.3-5. Additionally, the ER states that "[c]hemical monitoring would be a continuation of preconstruction/construction groundwater and surface water monitoring, as applicable. These activities would include characterization monitoring of the wells in the Upper Floridan aquifer to monitor the potential hydrologic, thermal, and chemical impacts from the deep injection wells. Preliminary frequency and chemical criteria are outlined [in] Section 6.3 and 6.6." ER at 6.7-3. Based on this monitoring program, the ER concludes that "potential impacts from the operation of the deep well injection wells to groundwater would be SMALL and not warrant mitigation beyond that described previously." ER at 5.2-13.

The Petitioners do not address statements in the ER that describe how deep well construction, operation, and monitoring would mitigate the potential for migration from the Boulder Zone to the Upper Floridan Aquifer, nor explain why the well installation and groundwater monitoring details are inadequate to address the potential for groundwater quality impacts resulting from upward migration at the injection wells. "Any 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, the proposed amended contention fails to demonstrate a genuine dispute with the application on a material issue, contrary to 10 C.F.R. § 2.309(f)(1)(vi).

Therefore, without providing more information than a list of chemical concentrations which may be found in treated wastewater, and having failed to address information in the ER which indicates that the ER Table 3.6-2 values are not indicative of the chemical concentrations in the wastewater as it is received from the Miami-Dade South District Wastewater Treatment Plant, the Joint Intervenors have failed to specify why the data or conclusions reached in the ER are inadequate. *See* 10 C.F.R. § 2.309(f)(1)(iv); *Oconee*, CLI-99-11, 49 NRC at 333-34; s*ee also Monticello*, LBP-05-31, 62 NRC at 748-49. Accordingly, having failed to explain why the injection of these chemicals at the referenced concentrations would conflict with the aforementioned discussion in the ER, this basis does not articulate a concrete, material dispute for litigation and thus does not support the admissibility of Proposed Amended Contention NEPA 2.1, contrary to 10 C.F.R. § 2.309(f)(1)(vi). *See Sacramento Municipal Utility District* (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.").

For these reasons, these portions of Proposed Contention NEPA 2.1 fail to meet the requirements of 10 C.F.R. § 2.309(f)(1)(iv) and (vi) and thus do not support the admissibility of proposed amended Contention NEPA 2.1 or constitute admissible independent contentions.

Summary of Staff Response to Proposed Amended Contention NEPA 2.1: As explained above, the staff does not oppose the admission of proposed amended Contention NEPA 2.1 to the extent that the Joint Petitioners assert that the ER should identify the source of chemical concentration data for heptachlor, toluene, ethylbenzene and tetrachloroethylene which form the

basis for the ER's subsequent analyses. However, all other portions of proposed amended Contention NEPA 2.1 are inadmissible because with respect to each of its constituent bases the Joint Intervenors either fail to explain why each is timely; fails to explain why each issue is material to the findings that the NRC must make in this proceeding; or 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)(2), (c)(1), and (f)(1)(iv) and (vi). Although each of the bases of proposed amended Contention NEPA 2.1 asserts inadequacies with respect to the ER's analysis of the data and impacts of chemicals found in the treated wastewater to be injected into the Boulder Zone via deep well injection, each basis appears to focus on separate failings. The Staff has identified no assertions with cumulative force that would support the admissibility of the "parent" contention (Motion at 12) despite the inadmissibility of the majority of the individual NEPA 2.1 bases.

CONCLUSION

For the reasons stated above, proposed amended Contention NEPA 2.1 should be admitted in part and denied in part.

Respectfully submitted,

/Signed (electronically) by/
Sarah W. Price
Counsel for the NRC Staff
U.S. Nuclear Regulatory Commission
Mail Stop O-15 D21
Washington, DC 20555-0001
(301) 415-2047
Sarah.Price@nrc.gov

Executed in Accord with
10 C.F.R. § 2.304(d)
Robert M. Weisman
Counsel for the NRC Staff
U.S. Nuclear Regulatory Commission
Mail Stop O-15 D21
Washington, DC 20555-0001
(301) 415-1696
Robert.Weisman@nrc.gov

Dated at Rockville, Maryland
this 10th day of February, 2012

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 and 52-041
	)	
(Turkey Point Units 6 and 7)	)	

CERTIFICATE OF SERVICE

I hereby certify that copies of the "NRC Staff Answer to 'Joint Intervenors' Motion to Amend Contention 2.1'" have been served upon the following persons by Electronic Information Exchange this 10th day of February, 2012:

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: OCAAmail@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

Mitchell S. Ross
James M. Petro, Jr.
Counsel for the Applicant
Florida Power & Light Co.
Mail Stop LAW/JB
700 Universe Blvd.
Juno Beach, FL 33408
E-mail: Mitch.Ross@fpl.com
james.petro@fpl.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

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

John H. O'Neill, Jr.
Matias F. Travieso-Diaz
Stefanie Nelson George
Kimberly A. Harshaw
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;
Stefanie.George@pillsburylaw.com
Kimberly.Harshaw@pillsburylaw.com

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

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

Dated at Rockville, Maryland
this 10th day of February, 2012