LBP-19-08

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

E. Roy Hawkens, Chairman
Dr. Sue H. Abreu
Dr. Michael F. Kennedy

In the Matter of	Docket Nos. 50-250-SLR & 50-251-SLR
FLORIDA POWER & LIGHT COMPANY	ASLBP No. 18-957-01-SLR-BD01
(Turkey Point Nuclear Generating Units 3 and 4)	October 24, 2019

MEMORANDUM AND ORDER
(Denying Requests for Rule Waiver and Admission of Newly Proffered Contentions, and Terminating Proceeding)

This proceeding involves Florida Power & Light Company's (FPL's) subsequent license renewal application for Turkey Point Nuclear Generating Units 3 and 4, located near Homestead, Florida. As relevant here, in March 2019, this Licensing Board granted a hearing request from Friends of the Earth, Inc., Natural Resources Defense Council, Inc., and Miami Waterkeeper, Inc. (collectively, Joint Intervenors) and admitted two environmental contentions challenging FPL's environmental report (ER). See LBP-19-3, 89 NRC __ (2019). That same month, the NRC Staff issued the Draft Supplemental Environmental Impact Statement (DSEIS) for Turkey Point Units 3 and 4. Pursuant to the migration tenet, Joint Intervenors' two admitted contentions became challenges to the DSEIS.[1] In July 2019, this Board granted FPL's motions

[1] A contention "migrates" when a licensing board construes an admitted contention challenging an applicant's environmental review document (here, FPL's ER) as a challenge to a subsequently issued environmental review document prepared by the NRC Staff (here, the NRC Staff's DSEIS) without the petitioner amending the contention. See Crow Butte Res., Inc. (In Situ Leach Facility, Crawford, Neb.), CLI-15-17, 82 NRC 33, 42 n.58 (2015).

to dismiss Joint Intervenors' two admitted contentions as moot, having been cured by new information in the DSEIS. See LBP-19-6, 90 NRC __ (2019). Now pending before this Licensing Board are requests from Joint Intervenors seeking (1) a rule waiver; and (2) the admission of six newly proffered environmental contentions challenging the DSEIS.

For the reasons discussed below, we deny Joint Intervenors' requests. Because our ruling disposes of all pending contentions, this proceeding is terminated at the Licensing Board level.

I. PROCEDURAL BACKGROUND

On January 30, 2018, FPL applied for a twenty-year subsequent license renewal (SLR) for two nuclear power reactors, Turkey Point Units 3 and 4.[2] As required by 10 C.F.R. § 51.53(c), FPL submitted an ER with its application.[3] In response to a notice of opportunity to request a hearing published in the Federal Register,[4] Joint Intervenors filed a timely hearing request that raised challenges to the ER.[5]

On March 7, 2019, this Board granted Joint Intervenors' hearing request and admitted two environmental contentions of omission, Contentions 1-E and 5-E. See LBP-19-3, 89 NRC

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[2] See Letter from Mano K. Nazar, President and Chief Nuclear Officer, FPL, to Document Control Desk, NRC (Jan. 30, 2018); [FPL], Turkey Point Nuclear Plant Units 3 and 4 [SLR] Application (rev. 1 Apr. 2018) [hereinafter SLRA]. The original licenses issued to FPL for Units 3 and 4 authorized forty years of operation, and the first renewal was for an additional twenty years of operation. The current licenses for the units will expire, respectively, on July 19, 2032 and April 10, 2033. See SLRA at 1-1.

[3] See [FPL] SLRA, App. E, Applicant's [ER], Subsequent Operating License Renewal Stage, Turkey Point Nuclear Plant Units 3 and 4 (Jan. 2018) [hereinafter ER].

[4] See [FPL]; Turkey Point Nuclear Generating, Unit Nos. 3 and 4, 83 Fed. Reg. 19,304 (May 2, 2018); see also Commission Order (June 29, 2018) at 2 (unpublished) (granting a thirty-day filing extension).

[5] See LBP-19-3, 89 NRC at __ (slip op. at 3). Southern Alliance for Clean Energy (SACE) and Albert Gomez also filed hearing requests. See id. Additionally, Monroe County, Florida requested to participate as an interested governmental participant in support of the contentions proffered by SACE. See id. at 5.

at __ n.82 (slip op. at 63 n.82).[6] "A contention of omission is one that alleges an application suffers from an improper omission, whereas a contention of adequacy raises a specific substantive challenge to how particular information or issues have been discussed in the application." Fla. Power & Light Co. (Turkey Point Nuclear Generating Plant, Units 6 & 7), LBP-11-6, 73 NRC 149, 200 n.53 (2011); see also Pac. Gas & Elec. Co. (Diablo Canyon Nuclear Power Plant, Units 1 & 2), CLI-16-11, 83 NRC 524, 534 (2016).

In March 2019, the NRC Staff issued a DSEIS for Turkey Point Units 3 and 4 as required by 10 C.F.R. § 51.70.[7] Pursuant to the migration tenet, see supra note 1, Joint Intervenors' two contentions, which originally challenged FPL's ER, became challenges to the NRC Staff's DSEIS. On May 20, 2019, FPL moved to dismiss Contentions 1-E and 5-E as moot, arguing that the omissions had been cured by new information in the DSEIS. See LBP-19-6, 90 NRC at __ (slip op. at 3). On July 8, 2019, this Board granted FPL's request to dismiss Contentions 1-E and 5-E as moot. See id. at __ (slip op. at 10).

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[6] In the same decision, this Board (1) granted SACE's hearing request and admitted two proffered contentions; (2) granted Monroe County, Florida's request to participate as an interested governmental participant in support of SACE's two admitted contentions; and (3) denied Mr. Gomez's hearing request. See LBP-19-3, 89 NRC at __ (slip op. at 63).

On April 9, 2019, SACE withdrew from this proceeding as part of a settlement with FPL, resulting in the dismissal of its admitted contentions. See LBP-19-6, 90 NRC at __ (slip op. at 2). Monroe County, Florida thereby lost its status as an interested governmental participant in support of SACE's contentions. Cf. La. Energy Servs. (Nat'l Enrichment Facility), CLI-04-35, 60 NRC 619, 626–27 (2004) (affirming licensing board's ruling that a government entity could not participate as an interested governmental participant without adopting an admitted contention pursuant to 10 C.F.R. § 2.315(c)).

[7] See Office of Nuclear Reactor Regulation, NUREG-1437, Generic Environmental Impact Statement for License Renewal of Nuclear Plants, Supp. 5, Second Renewal, Regarding Subsequent License Renewal for Turkey Point Nuclear Generating Unit Nos. 3 & 4, Draft Report for Comment (Mar. 2019) (ADAMS Accession No. ML19078A330) [hereinafter DSEIS].

Meanwhile, pursuant to this Board's scheduling order governing the submission of new or amended contentions based on the DSEIS,[8] on June 24, 2019, Joint Intervenors moved to admit six newly proffered environmental contentions of adequacy challenging the DSEIS.[9] Joint Intervenors also submitted a petition for waiver of 10 C.F.R. §§ 51.53(c)(3), 51.71(d), and 10 C.F.R. Part 51, Subpart A, Appendix B.[10] The NRC Staff and FPL opposed the motion and the petition for waiver.[11] Joint Intervenors filed a reply in support of their motion.[12]

On September 9, 2019, this Board held an oral argument at NRC headquarters in Rockville, Maryland, to assess Joint Intervenors' rule waiver request and the admissibility of

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8 See Licensing Board Order (Granting in Part Intervenors' Joint Motion for Partial Reconsideration of Initial Scheduling Order) (Apr. 2, 2019) (unpublished) [hereinafter April 2019 Scheduling Order].

9 See [Joint Intervenors'] Motion to Migrate Contentions & Admit New Contentions in Response to NRC Staff's [DSEIS] (June 24, 2019). Joint Intervenors later filed an amended motion. See [Joint Intervenors'] Amended Motion to Migrate Contentions & Admit New Contentions in Response to NRC Staff's [DSEIS] (June 28, 2019) [hereinafter Joint Intervenors' Motion for New Contentions]. This Board's decision in LBP-19-6 rendered moot that portion of Joint Intervenors' motion that sought to migrate Contentions 1-E and 5-E as originally admitted.

10 See [Joint Intervenors'] Petition for Waiver of 10 C.F.R. §§ 51.53(c)(3), 51.71(d), and 10 C.F.R. Part 51, Subpart A, Appendix B (June 24, 2019) [hereinafter Joint Intervenors' Petition for Waiver].

11 See NRC Staff's Answer to Joint Intervenors' (1) Amended Motion to Migrate or Amend Contentions 1-E and 5-E and to Admit Four New Contentions, and (2) Petition for Waiver (July 19, 2019) [hereinafter NRC Staff's Answer]; [FPL's] Answer Opposing Intervenors' Motion to Migrate or Amend Contentions 1-E and 5-E and to Admit New Contentions 6-E, 7-E, 8-E, and 9-E (July 19, 2019) [hereinafter FPL's Answer to Contentions]; [FPL's] Answer to Intervenors' Petition for Waiver of Certain 10 C.F.R. Part 51 Regulations (July 19, 2019) [hereinafter FPL's Answer to Waiver Petition].

12 See Reply in Support of Motion to Migrate Contentions & Admit New Contentions in Response to NRC Staff's [DSEIS] (July 26, 2019) [hereinafter Joint Intervenors' Reply].

On July 26, 2019, Joint Intervenors also filed a reply in support of their petition for waiver, which FPL moved to strike, arguing that 10 C.F.R. § 2.335 does not permit a litigant who petitions for waiver to file a reply. We granted FPL's motion. See Licensing Board Order (Granting FPL's Motion to Strike) (Aug. 20, 2019) (unpublished).

their newly proffered contentions. See Official Transcript of Proceedings, [FPL] Turkey Point Nuclear Generating Units 3 and 4 at 260–466 (Sept. 9, 2019) [hereinafter Tr.].

II. LEGAL STANDARDS

We summarize below three legal standards that are implicated in this case: (1) the three-factor good cause standard in 10 C.F.R. § 2.309(c) governing the timeliness of contentions that are proffered after the deadline for submitting initial hearing petitions in 10 C.F.R. § 2.309(b); (2) the six-factor contention admissibility standard in 10 C.F.R. § 2.309(f)(1); and (3) the rule waiver criteria in 10 C.F.R. § 2.335 for a litigant who seeks to challenge a Commission regulation.

A. THE GOOD CAUSE STANDARD IN 10 C.F.R. § 2.309(c)

A litigant who, like Joint Intervenors, proffers new or amended contentions after the deadline in 10 C.F.R. § 2.309(b) must demonstrate good cause for the belated filing. See 10 C.F.R. § 2.309(c)(1). Good cause exists if the litigant shows that (1) the information upon which the new or amended contention is based was not previously available; (2) the information upon which the contention is based is materially different from information previously available;[13] and (3) the contention has been submitted in a timely fashion based on the availability of the subsequent information.[14] See id. § 2.309(c)(1)(i)–(iii). Regarding the timeliness criterion in item 3, this Board's Scheduling Order, see supra note 8, established June

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[13] The term "materially" within the meaning of section 2.309(c)(1)(ii) "describes the type or degree of difference between the new information and previously available information . . ., and it is synonymous with, for example, 'significantly,' 'considerably,' or 'importantly.'" Fla. Power & Light Co. (Turkey Point Units 6 & 7), LBP-17-6, 86 NRC 37, 48, aff'd on other grounds, CLI-17-12, 86 NRC 215 (2017).

[14] Cf. Entergy Nuclear Vermont Yankee LLC and Entergy Nuclear Operations, Inc. (Vermont Yankee Nuclear Power Station), CLI-11-2, 73 NRC 333, 342 n.43 (2011) ("We and our Licensing Boards generally consider approximately 30–60 days as the limit for timely filings based on new information.").

24, 2019 as the deadline for filing new or amended contentions based on the DSEIS. See April 2019 Scheduling Order at 3.

B. THE CONTENTION ADMISSIBILITY STANDARD IN 10 C.F.R. § 2.309(f)(1)

To be admissible, a timely-filed contention must satisfy the following six-factor contention admissibility criteria in 10 C.F.R. § 2.309(f)(1):

> (i) Provide a specific statement of the issue of law or fact to be raised or controverted . . .;
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> (ii) Provide a brief explanation of the basis for the contention;
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> (iii) Demonstrate that the issue raised in the contention is within the scope of the proceeding;
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> (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;
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> (v) Provide a concise statement of the alleged facts or expert opinions which support the requestor's/petitioner's position on the issue . . ., 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]
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> (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 . . . that the petitioner disputes and the supporting reasons for each dispute.

10 C.F.R. § 2.309(f)(1)(i)–(vi).

The Commission's contention admissibility standard is "strict by design," AmerGen Energy Co. (Oyster Creek Nuclear Generation Station), CLI-06-24, 64 NRC 111, 118 (2006) (quoting Dominion Nuclear Conn., Inc. (Millstone Nuclear Power Station, Units 2 & 3), CLI-01-24, 54 NRC 349, 358 (2001)), and failure to comply with any admissibility requirement "renders a contention inadmissible." Entergy Nuclear Operations, Inc. (Indian Point, Unit 2), CLI-16-5, 83 NRC 131, 136 (2016).

C. THE RULE WAIVER CRITERIA IN 10 C.F.R. § 2.335

Pursuant to section 2.335(a), "no rule or regulation of the Commission . . . is subject to attack by way of [any] . . . means in any adjudicatory proceeding subject to [10 C.F.R. Part 2]." 10 C.F.R. § 2.335(a). The same regulation recognizes, however, that "special circumstances" may exist in a particular proceeding "such that the application of the rule or regulation (or a provision of it) would not serve the purposes for which the rule or regulation was adopted." Id. § 2.335(b). In such circumstances, a litigant may petition that the application of a specified Commission rule or regulation "be waived or an exception be made for the particular proceeding." Id.

Commission precedent construing section 2.335(b) provides that a litigant's petition for rule waiver must be accompanied by an affidavit demonstrating that the following four factors (commonly referred to as the Millstone factors) are satisfied:

(i) the rule's strict application would not serve the purposes for which it was adopted;

(ii) the movant has alleged special circumstances that were not considered, either explicitly or by necessary implication, in the rulemaking proceeding leading to the rule sought to be waived;

(iii) those circumstances are unique to the facility rather than common to a large class of facilities; and

(iv) a waiver of the regulation is necessary to reach a significant safety [or environmental] problem.

Dominion Nuclear Conn., Inc. (Millstone Nuclear Power Station, Units 2 & 3), CLI-05-24, 62 NRC 551, 559–60 (2005) (internal quotations omitted); see Exelon Generation Co. (Limerick Generating Station, Units 1 & 2), CLI-13-7, 78 NRC 199, 209 (2013) (holding that the fourth Millstone factor applies to a significant environmental problem). If a licensing board concludes that the petitioning litigant has made a prima facie showing that section 2.335(b) is satisfied, the board shall, "before ruling on the petition, certify the matter directly to the Commission" for a

determination as to whether the rule should be waived or an exception made. 10 C.F.R. § 2.335(d).

The Commission has described the rule waiver standard as "stringent by design." Limerick, CLI-13-7, 78 NRC at 207. "[T]o challenge the generic application of a rule, a petitioner seeking waiver must show that there is something extraordinary about the subject matter of the proceeding such that the rule should not apply." Id.

III. ANALYSIS

A. CONTENTION 1-Eb IS NOT ADMISSIBLE

In Contention 1-Eb, Joint Intervenors allege that "[t]he DSEIS fails to analyze adequately mechanical draft cooling towers as a reasonable alternative that could mitigate adverse impacts of the cooling canal system [(CCS)] in connection with the license renewal of Turkey Point Units 3 and 4." Joint Intervenors' Motion for New Contentions at 8.[15] Specifically, Joint Intervenors assert that the DSEIS fails adequately to "consider how the cooling tower alternative could reduce acknowledged adverse impacts to (1) threatened, endangered, and protected species and essential fish habitat and (2) groundwater use conflicts." Id. at 12.

The NRC Staff and FPL argue that both components of Contention 1-Eb are inadmissible pursuant to 10 C.F.R. § 2.309(f)(1). See NRC Staff's Answer at 19–23; FPL's Answer to Contentions at 10–20.[16] We agree.

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[15] As discussed supra Part I, this Board admitted Contention 1-E as a contention of omission, but we subsequently dismissed it as moot based on curative information in the DSEIS. See LBP-19-6, 90 NRC at __, __ (slip op. at 1, 10). Contention 1-Eb is an amended version of Contention 1-E that challenges the adequacy of the curative information.

[16] FPL also argues that Contention 1-Eb fails to satisfy the good cause standard in section 2.309(c) for belated filings to the extent it alleges that the DSEIS's cooling tower alternative discussion failed adequately to consider groundwater use conflicts. See FPL Answer to Contentions at 9–10. FPL is incorrect. The DSEIS contains a cooling tower alternative analysis (which includes a groundwater use conflicts discussion) that FPL failed to include in the ER. See Joint Intervenors' Motion for New Contentions at 9; LBP-19-6, 90 NRC at __–__ (slip op. at 4–7). Contention 1-Eb's challenge is thus directed at new information that (1) was not previously available; and (2) is materially different from previously available information in the

1. Regarding the first component of Contention 1-Eb, Joint Intervenors fail to establish a genuine issue of material law or fact in asserting that the DSEIS fails to consider how the cooling tower alternative could mitigate adverse impacts to threatened, endangered, and protected species and essential fish habitat. See Joint Intervenors' Motion for New Contentions at 12.[17] The DSEIS describes the scenario in which discontinued use of the CCS as a heat sink for Units 3 and 4 (a consequence of the cooling tower alternative) would result in less heat being discharged to the CCS, which could cause the water in the CCS to become "less saline and create more favorable habitat for [Endangered Species Act (ESA)-listed] species." DSEIS at 4-68.[18] The DSEIS further explains that if the CCS were no longer used to

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ER, thereby satisfying section 2.309(c)(1)(i) and (ii). Additionally, Joint Intervenors submitted Contention 1-Eb within the June 24, 2019 deadline established by this Board's April 2019 Scheduling Order, thereby satisfying the timeliness requirement in section 2.309(c)(1)(iii). The good cause standard, see supra Part II.A, is satisfied.

[17] Joint Intervenors are similarly incorrect in asserting broadly that the DSEIS "is devoid of any substance on the environmental benefits" of the cooling tower alternative. Joint Intervenors' Motion for New Contentions at 11. See, e.g., DSEIS § 4.5.7.1 (concluding that the impact of the cooling tower alternative on surface water resources would be "SMALL"); id. § 4.5.7.2 (concluding that the impact of the cooling tower alternative on groundwater resources would be "SMALL"); id. § 4.6.7 (concluding that the impact of the cooling tower alternative on terrestrial resources would be "less intense" than the impacts common to all replacement power alternatives due to "the smaller land area required for construction and operation," but the impacts would nevertheless be "MODERATE" due to impacts from the "permanent disturbance, fragmentation, and degradation of important terrestrial habitats"); id. § 4.7.7 (concluding that the impact of the cooling tower alternative on aquatic resources would be "MODERATE" in the local environs of the plant because cooling tower construction "would result in the permanent loss or impairment of sensitive aquatic habitats and could affect ecosystem function and connectivity"; however, FPL's restoration activities pursuant to its nutrient management plan "would likely return portions of the CCS to a seagrass-based ecological system"); id. at 2-22 (summarizing in Table 2-2 the environmental impacts of the cooling tower alternative).

[18] Joint Intervenors correctly observe that some of the NRC Staff's arguments regarding the environmental benefits of discontinued use of the CCS as a heat sink for Units 3 and 4 rely on discussions from the DSEIS section on the "no-action alternative" rather than the DSEIS section on the "cooling tower alternative." See, e.g., Tr. at 315. Joint Intervenors are incorrect, however, in asserting that such reliance is improper unless the DSEIS expressly states that an analysis or conclusion in one section also applies to another section. See id. at 317. Nothing in the National Environmental Policy Act (NEPA) proscribes an agency from arguing that an analysis or conclusion in one section of the DSEIS also applies to other sections where, as here, see id. at 320, 327–28, a sensible reading of the DSEIS supports such an argument. Cf.

cool Units 3 and 4, FPL would still be required to take the CCS restorative actions mandated by a 2016 Consent Order with the State of Florida[19] and a 2015 Consent Agreement with Miami-Dade County,[20] see id., which compel FPL to, inter alia, decrease the salinity of the CCS, develop a nutrient management plan for the CCS, and restore seagrass within portions of the CCS.[21] The DSEIS concludes that, under these circumstances, "the CCS would likely continue to provide habitat for ESA-listed species." Id. The DSEIS also states that as a result of continuing restoration activities during cooling tower operations, portions of the CCS would likely be restored "to a seagrass-based ecological system." Id. at 4-60. Finally, the DSEIS contains the following discussion regarding special status species and habitats for the cooling tower alternative:

> To the extent that license amendments would be necessary to authorize cooling towers to dissipate excess heat during plant operation, . . . the Endangered Species Act and Magnuson-Stevens Act would require the NRC to consult with the U.S. Fish and Wildlife Service and National Marine Fisheries Service, as applicable, during the [S]taff's review of that alternative. If the cooling water system alternative required a Clean Water Act, Section 404 permit, the U.S. Army Corps of Engineers could be involved in [Endangered Species Act] consultation. The consultations would determine whether the construction and operation of cooling towers would affect any federally listed species, adversely modify or destroy designated critical habitat, or result in adverse effects on Essential Fish Habitat, if present. Ultimately, the magnitude and significance of adverse impacts on special status species and habitats would depend on the location and layout of the cooling towers, the design of the cooling towers, operational parameters, and the special status species and habitats present in the area when the alternative is implemented.

NRDC v. Morton, 458 F.2d 827, 834 (D.C. Cir. 1972) ("[I]t is the essence and thrust of NEPA that the pertinent [EIS] serve to gather in one place a discussion of the relative environmental impact of alternatives.").

[19] See Fla. Dep't of Envtl. Prot. v. FPL, OGC File No. 16-02441, Consent Order (June 20, 2016) (ADAMS Accession No. ML16216A216) [hereinafter Florida Consent Order].

[20] See Miami-Dade County, Dep't of Regulatory and Econ. Res., Division of Envtl. Res. Mgmt. v. FPL, Consent Agreement (Oct. 7, 2015) (ADAMS Accession No. ML15286A366) [hereinafter Miami-Dade Consent Agreement].

[21] See NRR, Biological Assessment for the Turkey Point Nuclear Generating Unit Nos. 3 and 4 Proposed [SLR] at 36 (Dec. 2018) (ADAMS Accession No. ML18353A835) (incorporated by reference in the DSEIS at 4-60) [hereinafter Biological Assessment].

Id. at 4-70.

Joint Intervenors fail to show why the above discussions are inadequate, and they fail to contest any of the above conclusions regarding the beneficial impacts on special species and habitat if the CCS were no longer used as a heat sink for Units 3 and 4. These failures render the first component of Contention 1-Eb inadmissible pursuant to 10 C.F.R. § 2.309(f)(1)(vi) for failing to show a genuine dispute with the DSEIS on a material issue of law or fact.

2. The second component of Contention 1-Eb fares no better. Joint Intervenors argue that the DSEIS fails to consider how the cooling tower alternative could mitigate adverse impacts to groundwater use conflicts. See Joint Intervenors' Motion for New Contentions at 12. More specifically, they claim that the DSEIS "does not analyze how ending the heat contribution of Turkey Point Units 3 and 4 to the cooling canals could freshen the water and reduce the groundwater impacts faster." Id. at 16. Joint Intervenors are incorrect.

The DSEIS describes the scenario in which discontinued use of the CCS would reduce discharges of heated water and other effluents to the CCS, potentially reducing the amount of water used to support freshening activities. See DSEIS at 4-35 to 4-36. Joint Intervenors do not cite, much less contest, that part of the DSEIS. This aspect of Contention 1-Eb is therefore inadmissible for failing to raise a genuine dispute with the DSEIS on a material issue of law or fact, as required by 10 C.F.R. § 2.309(f)(1)(vi).

B. CONTENTION 5-Eb IS NOT ADMISSIBLE

In Contention 5-Eb, Joint Intervenors assert that "[t]he DSEIS is deficient in its analysis of the potential impacts of ammonia releases during the renewal period on threatened and endangered species and their critical habitat." Joint Intervenors' Motion for New Contentions at 21.[22] Joint Intervenors specifically fault the DSEIS for "fail[ing] to consider the impacts of

[22] As discussed supra Part I, this Board admitted Contention 5-E as a contention of omission, but we subsequently dismissed it as moot based on curative information in the

ammonia discharges on all but one threatened and endangered species [i.e., the West Indian manatee] and important habitat." Id. at 23–24.

The NRC Staff and FPL argue that Contention 5-Eb is inadmissible pursuant to 10 C.F.R. § 2.309(f)(1). See NRC Staff's Answer at 23–30; FPL's Answer to Contentions at 20–26.[23] We agree.

In the DSEIS and the Biological Assessment (which is incorporated by reference in the DSEIS, see supra note 21), the NRC Staff discusses the environment at the Turkey Point facility and the role that ammonia might play in that environment. For example, the DSEIS states that FPL monitors the CCS, Biscayne Bay, Card Sound, marshland, mangrove areas, and canals adjacent to the CCS "for numerous water quality parameters, including ammonia and other nutrients" to evaluate the effects, if any, of CCS operations on the surrounding environment. DSEIS at 3-41. Ammonia concentrations in the CCS, as measured between June 2010 and May 2016, ranged from below detectable levels to 0.3 milligrams per liter (mg/L), and they averaged 0.04 mg/L. Id. at 3-42. Notably, these measurements are all below the Miami-Dade County water quality standard for ammonia of 0.5 mg/L, and the average concentration is more than an order of magnitude below that standard. See id.[24]

DSEIS. See LBP-19-6, 90 NRC at __, __ (slip op. at 1, 10). Contention 5-Eb is an amended version of Contention 5-E that challenges the adequacy of the curative information.

[23] FPL also argues that Contention 5-Eb fails to satisfy the good cause standard in section 2.309(c). See FPL's Answer to Contentions at 7–8. FPL is incorrect. The DSEIS includes new information and new analysis regarding ammonia emanating from the CCS that FPL failed to include in the ER. See Joint Intervenors' Motion for New Contentions at 21–22; LBP-19-6, 90 NRC at __–__ (slip op. at 7–10). Contention 5-Eb's challenge to that new information and analysis is thus based on information that (1) was not previously available; and (2) is materially different from previously available information in the ER, thereby satisfying section 2.309(c)(1)(i) and (ii). Additionally, Joint Intervenors submitted Contention 5-Eb within the June 24, 2019 deadline established by this Board's April 2019 Scheduling Order, thereby satisfying the timeliness requirement in section 2.309(c)(1)(iii). The good cause standard, see supra Part II.A, is satisfied.

[24] The DSEIS attributes the existence of ammonia in the CCS to the decay of organic material. See DSEIS at 3-42. According to the DSEIS, ammonia is transported from the CCS

As explained in the DSEIS, absent species-specific information to the contrary, the NRC Staff "assumes that the relevant State water quality criteria [here, the Miami-Dade ammonia water quality standard] are reasonably protective of [threatened or endangered species] because under Section 303(c) of the Clean Water Act, the [Environmental Protection Agency (EPA)] or the States are required to adopt water quality standards to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." DSEIS at 4-66; accord Biological Assessment at 61 ("[I]f waters inhabited by [threatened or endangered species] meet water quality criteria for ammonia, the NRC [S]taff assumes that there would be no lethal effects or impairments to growth, survival, or reproduction [of such species].").

The DSEIS states that "no contaminants associated with the CCS, including ammonia, have been found in Biscayne Bay itself[.]" DSEIS at 4-66. The DSEIS further states that FPL's water "monitoring program has not detected evidence in the surrounding marsh and mangroves areas of any impacts of ammonia [or other nutrients] from the CCS on soil pore water quality via the groundwater pathway[.]" Id. at 3-53. Finally, the Biological Assessment states that based on data from FPL's "extensive water quality monitoring program," there is "no evidence of an ecological impact [from ammonia] on the areas surrounding the CCS and no discernible influence from the CCS on Biscayne Bay[.]" Biological Assessment at 60; accord DSEIS at 4-22 ("[D]iscern[i]ble effects from CCS . . . ammonia . . . on Biscayne Bay or Card Sound water qualities ha[ve] not been detected.").

Although no ammonia attributable to the CCS has been found in Biscayne Bay, see DSEIS at 4-65, and no effect from CCS ammonia has been detected in Biscayne Bay or Card Sound, see id. at 4-22, the DSEIS states that exceedances of the Miami-Dade ammonia water quality standard have been detected at the bottom of the Barge Turning Basin, the Turtle Point

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by the outflow of water into groundwater that then travels to adjacent surface water bodies. See id. at 3-43 to 3-44. As discussed infra in text, however, there is no evidence of an ecological impact on Biscayne Bay or Card Sound from the low levels of ammonia in the CCS.

remnant canal, the S-20 canal, and the Sea-Dade remnant canal, which are excavations outside of, but close to, the CCS. See DSEIS at 3-50 to 3-53; Biological Assessment at 60. A report referenced in the DSEIS concludes that these elevated ammonia levels appear to be "limited to the locations of deep stagnant anoxic [i.e., low oxygen] water bodies," and are "attributable to the degradation of plant and animal material." DSEIS at 3-51; accord id. ("[T]he [elevated] ammonia values are consistent with the anoxic conditions that exist at the bottom of remnant canals and the accumulation of organic matter falling into the remnant canals from surrounding areas of the bay.").

The NRC Staff analyzed the impact of the elevated ammonia levels in the deep basin and remnant canals on the following threatened or endangered species that might conceivably be exposed: four types of sea turtles; the smalltooth sawfish; and the West Indian manatee. See DSEIS at 4-62 to 4-67; Biological Assessment at 59–62. Regarding sea turtles, the NRC Staff stated that they are unlikely to be present in the "stagnant, or dead-end canals." DSEIS at 4-66. "Even if sea turtles were to be present in the canals, exposure time would be limited because sea turtles are expected to only occur transiently and for short durations, if at all." Id. The NRC Staff therefore concluded that "the very low likelihood of sea turtles to be exposed to elevated ammonia levels and the short duration of potential exposure is unlikely to result in measurable effects on sea turtles." Id.

Regarding smalltooth sawfish, the NRC Staff observed that they are a ureotelic species that "convert ammonia to urea and native tri-methyl amine oxide, which counteracts its toxicity" and, accordingly, they "are expected to be less vulnerable to ambient ammonia than many other aquatic species." DSEIS at 4-66. Based on this information, the NRC Staff concluded "that even if smalltooth sawfish are present in the canal areas with elevated ammonia levels, individuals are unlikely to be measurably affected." Id.

Finally, with regard to the West Indian manatee, the NRC Staff observed that the "stagnant or dead-end canals" where the elevated ammonia concentrations are located "do not

provide preferred habitat for manatees[.]" Biological Assessment at 61. The NRC Staff concluded that "because of the very low likelihood of manatees [being] exposed to contaminants associated with the CCS, including ammonia, and because of the short duration of any such potential exposure, any effects on manatees would be insignificant or discountable." Id. Additionally, the NRC Staff concluded that "continued operation of Turkey Point Unit[s] . . . 3 and 4 will not appreciably diminish the ecological value of designated critical habitat within Biscayne Bay for the manatee[.]" Id.; accord id. at 62.

The NRC Staff also analyzed the impact of the CCS, including its ammonia content, on (1) ESA-listed species that inhabit the CCS, see Biologic Assessment at 32–37, 44, 45–47; DSEIS at 2-23 (Table 2-2, Note (a)); id. at 4-6 (Table 4-2, Note (c)); (2) ESA-listed species that may feed in the CCS, see Biological Assessment at 41–42, 49–55, 57–58; and (3) ESA-listed species in wetlands. See id. at 46–47, 51–53, 57–58, 64.[25]

As shown above, the NRC Staff analyzed the impact of ammonia on threatened and endangered species and sensitive habitats. The sole basis for Joint Intervenors' claim of inadequate analysis is their assertion that the DSEIS includes a more thorough analysis for the West Indian manatee than for other threatened and endangered species. See Joint Intervenors' Motion for New Contentions at 24–25. Contrary to Joint Intervenors' understanding, however, different analyses for different species based on different circumstances do not perforce equate to inadequate analyses. Rather, case law supports the conclusion that the NRC Staff acts reasonably—and, hence, consistent with NEPA—in analyzing the impact of ammonia in proportion to its potential impacts on threatened and endangered species and their habitats. See Morton, 458 F.2d at 834 ("The agency may limit its discussion of environmental impact to a

[25] As mentioned supra in text, because the ammonia concentration in the analyzed environments is less than the Miami-Dade water quality standard, the NRC Staff "assumes that there would be no lethal effects or impairments to growth, survival, or reproduction [of endangered or threatened species]." Biological Assessment at 61; accord DSEIS at 4-66. Joint Intervenors offer no facts or expert opinions that impugn the NRC Staff's assumption.

brief statement, when that is the case, that the alternative course involves no effect on the environment, or that [an] effect, briefly described, is simply not significant.").[26]

In sum, Joint Intervenors fail to support their claim that different analytic treatment of species is not justified by the differing circumstances of the different species and their habitats, as required by 10 C.F.R. § 2.309(f)(1)(v), and they fail to demonstrate a genuine dispute of material law or fact, as required by 10 C.F.R. § 2.309(f)(1)(vi). Contention 5-Eb is therefore not admissible.

C. CONTENTION 6-E IS NOT ADMISSIBLE

Before we address the admissibility of Contention 6-E, we consider the following two threshold issues: (1) whether Contention 6-E requires a rule waiver pursuant to 10 C.F.R. § 2.335; and (2) whether Contention 6-E satisfies the good cause standard in 10 C.F.R. § 2.309(c). As discussed below, we conclude that a rule waiver is not required and that the good cause standard is satisfied.

1. A Rule Waiver Is Not Required Because Contention 6-E Does Not Challenge A Category 1 Issue.[27] Contention 6-E challenges the DSEIS's conclusion that the CCS's impacts

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[26] Joint Intervenors err in asserting that the NRC Staff's evaluation of ammonia's impacts on all threatened and endangered species must "consider '[s]everal water quality parameters, including pH, temperature, and salinity; the rate and duration of exposure; and a species' specific physiobiology[.]'" Joint Intervenors' Motion for New Contentions at 23 (emphasis omitted) (quoting Biological Assessment at 60). The above passage from the Biological Assessment quoted by Joint Intervenors was not addressing the scope of analysis required by NEPA; rather, it was addressing factors that can "affect the extent to which an organism experiences toxicity from [an elevated] level of ammonia." Biological Assessment at 60. Joint Intervenors fail to explain why a species that is not exposed to an elevated level of ammonia should be expected to experience ammonia toxicity.

[27] As discussed more fully in LBP-19-3, 89 NRC at __–__ (slip op. at 9–13), Category 1 issues are those environmental issues with effects that (1) are generic to all, or a specified group of, nuclear power plants; (2) have been analyzed in the Generic Environmental Impact Statement (GEIS), NUREG-1437, and codified by notice and comment rulemaking in 10 C.F.R. Part 51; (3) need not be addressed on a site-specific basis by a license renewal applicant in the ER or by the NRC Staff in the DSEIS; and (4) cannot be litigated in NRC adjudicatory proceedings unless a litigant obtains a rule waiver pursuant to 10 C.F.R. § 2.335. In contrast, Category 2 issues—i.e., environmental issues with effects that are not generic to all, or a

on adjacent surface waters via the groundwater pathway will be small during the SLR term. See Joint Intervenors' Motion for New Contentions at 40. Although Joint Intervenors argue that a rule waiver is not required, see Joint Intervenors' Petition for Waiver at [unnumbered] 6, they nevertheless filed a protective petition for a waiver of 10 C.F.R. § 51.53(c)(3) and 51.71(d), and Appendix B to 10 C.F.R. Part 51, Subpart A. See id. We conclude—in agreement with all the parties—that a rule waiver is not required.

When FPL prepared the ER, it treated the issue raised in Contention 6-E as a Category 1 issue based on its conclusion that "the Category 1 issue, 'Altered salinity gradients,' [was] applicable to Turkey Point[.]" DSEIS at 4-21. When the NRC Staff prepared the DSEIS, it determined that FPL should not have treated this matter as a Category 1 issue because "the GEIS (NUREG-1437) did not consider how a nuclear power plant [like Turkey Point Units 3 and 4] with a cooling pond in a salt marsh may indirectly impact the water quality of adjacent surface water bodies via a groundwater pathway." Id. As the NRC Staff explained, unlike the Category 1 configuration described in the GEIS, Turkey Point Units 3 and 4 are not located on an estuary where "changes in salinity [are] due to the operational effects of intake and discharge structures in estuaries." Id. at 4-22. Rather, "[a]t Turkey Point, the intake and discharge structures associated with Units 3 and 4 are located within the enclosed CCS, which does not directly discharge to the surface waters of Biscayne Bay." Id. Given Turkey Point's unique configuration, the NRC Staff concluded that the issue of "water quality impacts on adjacent water bodies (plants with cooling ponds in salt marshes)" is not a Category 1 issue, see id. at xvii, and the NRC Staff therefore analyzed the matter as a Category 2 issue. See id. at 4-21 to 4-23.

Under these circumstances, states the NRC Staff, Joint Intervenors need not obtain a rule waiver because Contention 6-E raises "a new issue that was not addressed in the GEIS as

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specified group of, nuclear power plants—must receive a plant-specific analysis in the ER and DSEIS, and these issues can be litigated in NRC adjudicatory proceedings.

. . . a Category 1 . . . issue." NRC Staff's Answer at 32 n.127; accord Tr. at 270 (NRC Staff concedes that a waiver is not required to adjudicate Contention 6-E). FPL likewise concedes that a rule waiver is not required to adjudicate Contention 6-E, see Tr. at 270, given "the NRC Staff's determination in the DSEIS to treat this as a new issue and to prepare a site-specific analysis (thereby treating the issue as the functional equivalent of a Category 2 issue)." FPL's Answer to Waiver Petition at 9. We agree that a rule waiver is not required because Contention 6-E does not challenge a Category 1 issue and, hence, does not raise an impermissible challenge to a regulation.

2. The Good Cause Standard in Section 2.309(c) Is Satisfied. Joint Intervenors argue that Contention 6-E satisfies the good cause standard, see supra Part II.A, and therefore is not time-barred. See Joint Intervenors' Motion for New Contentions at 31–40. The NRC Staff disagrees, arguing that Joint Intervenors "fail to demonstrate good cause for the filing of [Contention 6-E] almost nine months after the August 1, 2018 deadline for filing initial contentions," and pointing out that Joint Intervenors' expert, Dr. Fourqurean, relies on sources that existed "long before the deadline[.]" NRC Staff's Answer at 37. FPL similarly challenges the timeliness of Contention 6-E, asserting that Joint Intervenors "do not explain how any of [Dr. Fourqurean's] observations constitute new and materially different information, or why they could not have raised such concerns based on the ER." FPL's Answer to Contentions at 32 (emphasis omitted).

We conclude that the good cause standard is satisfied. Contention 6-E challenges the DSEIS's site-specific analysis and conclusion that the CCS's impacts on adjacent surface waters via the groundwater pathway would be small during the SLR term. Contrary to FPL's argument, see FPL's Answer to Contentions at 32, Joint Intervenors could not reasonably be expected to have raised this challenge based on the ER because the ER treated this matter as a Category 1 issue. See DSEIS at 4-21. The DSEIS, in contrast, viewed the matter as a Category 2 issue involving "new information" and requiring a new "site-specific analysis." Id.;

see also Joint Intervenors' Motion for New Contentions at 39 (new information in the DSEIS is "materially different from what [FPL] presented in the [ER]").

Contention 6-E's challenge is thus based on, and directed at, new information and analysis in the DSEIS that (1) was not previously available; and (2) is materially different from previously available information in the ER, thereby satisfying section 2.309(c)(1)(i) and (ii). Additionally, Joint Intervenors submitted Contention 6-E within the June 24, 2019 deadline established by this Board's April 2019 Scheduling Order, thereby satisfying the timeliness requirement in section 2.309(c)(1)(iii). The good cause standard is satisfied.[28]

3. Contention 6-E Is Not Admissible. Although Contention 6-E is timely and does not require a rule waiver, it fails to satisfy the admissibility standard in 10 C.F.R. § 2.309(f)(1). Contention 6-E states that "[t]he DSEIS fails to take the requisite 'hard look' at the impacts on surface waters via the groundwater pathway." Joint Intervenors' Motion for New Contentions at 40. This contention disputes the DSEIS's conclusion in section 4.5.1.1 that the CCS's impacts on adjacent surface water bodies via the groundwater pathway would be small during the SLR term, arguing that this conclusion is (1) based on unreliable modeling, see id.; (2) improperly substitutes the existence of enforcement requirements and oversight imposed by Florida's Consent Order and Miami-Dade County's Consent Agreement for a proper NEPA analysis, see

[28] The timeliness arguments advanced by the NRC Staff and FPL appear to focus on their assertion that the sources relied upon by Joint Intervenors' expert, Dr. Fourqurean, are neither new nor materially different from previously available information. See NRC Staff's Answer at 37; FPL's Answer to Contentions at 32. That may be true, but it is quite beside the point for purposes of analyzing the good cause standard here. The salient—and decisive—facts are that Joint Intervenors timely proffered a new contention based on new information in the DSEIS that is materially different from previously available information in the ER. See 10 C.F.R. § 2.309(c)(1)(i)–(iii).

Notably, at oral argument, counsel for FPL conceded that the good cause standard would not bar Joint Intervenors from challenging "a new analysis or new information" in the DSEIS. Tr. at 331. In our judgment, that concession fatally undercuts FPL's timeliness argument.

id.; and (3) is contradicted by new reports and an expert opinion submitted by Dr. Fourqurean on behalf of Joint Intervenors. See id. at 41–42, 44.

The NRC Staff and FPL argue that Contention 6-E fails to satisfy the contention admissibility standard in 10 C.F.R. § 2.309(f)(1). See NRC Staff's Answer at 32–38; FPL's Answer to Contentions at 34–39. We agree. We address the three components of Contention 6-E in turn.

a. The first component of Contention 6-E asserts that the NRC Staff relied on unreliable modeling when it concluded that the CCS's impacts on adjacent surface water bodies via the groundwater pathway will be small during the SLR term. In support of this assertion, Joint Intervenors cite to a single page in the DSEIS, see Joint Intervenors' Motion for New Contentions at 41 nn.172 & 173 (citing DSEIS at 3-49), and they make the following claims: (1) "[t]he DSEIS recognizes that [FPL's] efforts to reduce salinity in the [CCS] through the addition of water pumped from the Upper Floridan aquifer have been unsuccessful," id. at 41; (2) the "effort to 'freshen' the [CCS] did not achieve the 34 [practical salinity units (PSU)] annual average as predicted by [FPL's] modelers," id.; and (3) the DSEIS's conclusions regarding CCS salinity impacts are based on "unsupported assertions by [FPL's] modelers that more favorable climatic conditions will resolve the problem." Id. at 43–44. In our judgment, Joint Intervenors' claims are based on an erroneous view of the DSEIS's analyses and, accordingly, do not support the contention or give rise to a genuine dispute of material fact.

The DSEIS explains that FPL has numerically modeled CCS operation with a focus on quantifying the volumes of water and the mass of salt entering and exiting the CCS. See DSEIS at 3-49. The models are used as tools "to understand and predict different aspects of the CCS," including "the effectiveness of [FPL's] mitigation measures." Id.

The following passage from the DSEIS supports the conclusion that the NRC Staff independently assessed the reasonableness of FPL's modeling:

> The most recent modeling was conducted by Tetra Tech for FPL. The focus of this modeling was to quantify the volumes of water and the mass of salt entering and exiting the CCS (FPL 2012a). Model calculations for the various components of the CCS incorporate hydrological, chemical, and meteorological data collected in and around the CCS (FPL 2012a). Selected model inputs were adjusted to calibrate the model against observed changes in CCS water and salt storage. The calibration minimized differences between simulated and observed salt and water storage changes within the CCS. The calibration process builds confidence that the model will produce adequate predictions of CCS behavior (FPL 2014b).

DSEIS at 3-49.

As germane to Joint Intervenors' allegations underlying the first component of Contention 6-E, the DSEIS states in pertinent part:

> In 2014, Tetra Tech used numerical models to estimate the volume of Upper Floridan aquifer water that would be required to reduce CCS water salinity to seawater range. The modeling exercise produced an estimate that with the addition of 14 [million gallons per day (mgd)] (53,000 [cubic meters per day (m^3/day)]) of Upper Floridan aquifer water that had a salinity of 2 PSU it would require less than a year to reduce salinities in the CCS to 35 PSU (Tetra Tech 2014a). However, while FPL then added an average of 12.8 mgd (48,500 m^3/day) of Upper Floridan aquifer brackish water to the CCS from the beginning of November 2016 to the end of May 2017, salinities in the CCS did not go down to 35 PSU (FPL 2017a). Rather, at the end of May 2017, average salinity concentrations in the CCS were 64.9 PSU (FPL 2017b).
>
> Comparing CCS data and model results, the modelers concluded that during this period (most of which occurred during the dry season), evaporation rates exceeded precipitation rates. . . . However, the addition of Upper Floridan aquifer water helped to moderate the effects of the dry season (typically, November – April) on the CCS. For example, CCS salinities during the dry seasons of 2014 and 2015, which were not as dry as 2017, exceeded 90 PSU, while the addition of brackish water from the Upper Floridan aquifer and saltwater from the marine wells was effective in keeping CCS salinities below 70 PSU in the 2017 dry season. The modelers anticipate that under more favorable climatic conditions (e.g., less severe dry seasons), the addition of Upper Floridan aquifer water should help to reduce CCS water salinities to 34 PSU (FPL 2017a, FPL 2017b).

DSEIS at 3-49. Additionally, the DSEIS states that if FPL fails to reach an annual average salinity of 34 PSU or lower within four years of implementing freshening activities (i.e., by May 2021, see Tr. at 386, 416), the Consent Order with Florida requires FPL to submit a plan

detailing additional mitigation measures, and a revised timeframe for achieving the salinity target. See id.[29]

Contrary to Joint Intervenors' claim, see Joint Intervenors' Motion for New Contentions at 41, a fair reading of the DSEIS does not establish that FPL's efforts to reduce the salinity in the CCS have been unsuccessful; rather, the DSEIS shows that FPL's freshening efforts have achieved a measure of success.[30] Nor, contrary to Joint Intervenors' speculation, see id., does the fact that FPL's freshening efforts have not yet achieved a CCS salinity level of 34 PSU raise a credible inference that FPL's model is fatally flawed or that its freshening efforts are ultimately doomed to failure.[31] Finally, contrary to Joint Intervenors' claim, id. at 43–44, the DSEIS does not indicate that FPL's model relies on more favorable climatic conditions in the future as an essential assumption for achieving a CCS salinity of 34 PSU; rather, the DSEIS discusses the

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[29] The Consent Order between FPL and Florida states in relevant part:

> If FPL fails to reach an annual average salinity of at or below 34 PSU by the end of the fourth year of freshening activities [i.e., by May 2021, see Tr. at 386, 416], within 30 days of failing to reach the required threshold, FPL shall submit a plan to [Florida] detailing additional measures, and a timeframe, that FPL will implement to achieve the threshold. Subsequent to attaining the threshold in the manner set forth above, if FPL fails more than once in a 3 year period to maintain an average annual salinity of at or below 34 PSU, FPL shall submit, within 60 days of reporting the average annual salinity, a plan containing additional measures that FPL shall implement to achieve the threshold salinity level.

DSEIS at 3-47 (quoting Consent Order).

[30] See DSEIS at 3-49 (observing that FPL's freshening efforts in the CCS during the 2017 dry season were effective in achieving a salinity level of 64.9 PSU, which is substantially lower than the greater-than-90 PSU level that existed in the 2014 and 2015 dry seasons that were wetter than the 2017 dry season).

[31] As the DSEIS states, see DSEIS at 3-49, pursuant to the Consent Order with Florida, the targeted deadline for FPL to reach a CCS salinity level of 34 PSU is May 2021. See Tr. at 386, 416; supra note 29. The DSEIS also shows that the NRC Staff independently assessed the reasonableness of the model underlying the freshening plan upon which that deadline is based. See DSEIS at 3-49. Joint Intervenors fail to show a genuine dispute of material fact exists with regard to that timeline or the reasonableness of the model upon which that timeline is based.

observed effects of drier conditions, and the anticipated effects of less severe dry seasons, on the model predictions and results.[32]

Because we conclude that Joint Intervenors' assertions in support of the first component of Contention 6-E are based on an erroneous view of the DSEIS's analyses, that aspect of Contention 6-E is inadmissible for failing to provide the necessary support, as required by 10 C.F.R. § 2.309(f)(1)(v), and for failing to show a genuine dispute on a material issue of law or fact, as required by 10 C.F.R. § 2.309(f)(1)(vi).

b. The second component of Contention 6-E asserts that the NRC Staff's conclusion in section 4.5.1.1 of the DSEIS that the CCS's impacts on adjacent surface water bodies via the groundwater pathway will be small improperly "substitutes the existence of permit requirements and oversite [sic] [by Florida and Miami-Dade County] for a proper NEPA analysis." Joint Intervenors' Motion for New Contentions at 40; see also id. at 43 ("The NRC Staff's conclusion [incorrectly] presumes that compliance with the [Florida] Consent Order and the Miami-Dade Consent agreement will effectively manage salinity conditions in the [CCS] and therefore prevent adverse impacts on adjacent surface water bodies."). We conclude that this aspect of Contention 6-E is inadmissible for two reasons.

First, contrary to Joint Intervenors' assertion, the NRC Staff did not—in abdication of its NEPA responsibilities—base its conclusion in section 4.5.1.1 of the DSEIS solely on the existence of enforcement requirements and continuing oversight of Florida and Miami-Dade County. As discussed supra Part III.C.3.a, the NRC Staff's conclusion is based, inter alia, on (1) the Staff's independent assessment of FPL's modeling for freshening the CCS; and (2) the

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[32] See DSEIS at 3-49. As counsel for the NRC Staff observed, the reference in the DSEIS about "more favorable climatic conditions" was "a qualitative statement" recognizing that "weather conditions can affect the outcomes." Tr. at 372–73. We agree that the reference, reasonably read in context, simply "indicate[s] that a return to more . . . historically normal weather conditions, would result in more favorable conditions in the CCS." Id. at 374.

Staff's review of FPL's freshening plans and its progress in achieving freshening goals.[33] Because this aspect of Contention 6-E fails to acknowledge the full basis underlying the NRC Staff's conclusion in section 4.5.1.1 of the DSEIS, it is grounded on an erroneous factual predicate, which renders it inadmissible for failing to provide the necessary factual support, as required by 10 C.F.R. § 2.309(f)(1)(v), and for failing to show a genuine dispute on a material issue of law or fact, as required by 10 C.F.R. § 2.309(f)(1)(vi).

Second, insofar as Joint Intervenors suggest that NEPA proscribes the NRC Staff from considering enforcement requirements and oversight activities by local authorities when preparing the DSEIS, they are incorrect as a matter of law. As we explained in a previous decision in this case:

> Pursuant to binding case law, we accord "substantial weight" to the determination of [Florida and Miami-Dade County] that FPL will comply with its legal obligations. See Pub. Serv. Co. of N.H. (Seabrook Station, Units 1 & 2), CLI-77-8, 5 NRC 503, 527 (1977) (holding that a finding of environmental acceptability made by a competent state authority pursuant to a thorough hearing "is properly entitled to substantial weight in the conduct of our own NEPA analysis.") ([brackets omitted and] internal quotation marks omitted); cf. Pac. Gas & Elec. Co. (Diablo Canyon Power Plant, Units 1 & 2), CLI-03-2, 57 NRC 19, 29 (2003) (absent evidence to the contrary, Commission will assume that licensee will comply with license obligations). FPL's past violations in this case, standing alone, do not constitute sufficient information to give rise to a genuine dispute with the assumption that [Florida and Miami-Dade County] will enforce, and FPL will comply with, the legally mandated mitigation measures . . . . See Fla. Power & Light Co. (Turkey Point Nuclear Generating Units 3 & 4), CLI-16-18, 84 NRC 167, 174–75 n.38 (2016).

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[33] The DSEIS also describes the structure and physical operation of the CCS, see DSEIS § 3.1.3.2; the CCS's connection with Biscayne Aquifer groundwater, see id.; and the Biscayne Aquifer's connection with surface water in Biscayne Bay and Card Sound. See, e.g., id. §§ 3.5.1, 3.5.1.1, 4.5.1.1. The DSEIS describes recent studies to evaluate potential effects of CCS operations via the movement of groundwater from the CCS to adjacent surface water bodies and explains that, in response to enforcement requirements imposed by Florida and Miami-Dade County, "FPL conducts an extensive water quality monitoring program that includes the CCS, Biscayne Bay, Card Sound, marshland, mangrove areas, and canals adjacent to the CCS." Id. § 3.5.1.4. These discussions in the DSEIS support the conclusion that the NRC Staff complied with NEPA's "hard look" requirement when assessing the impacts on surface water via the groundwater pathway, which, in turn, belies Joint Intervenors' assertion that the NRC Staff "substitute[d]" the existence of enforcement and oversight by Florida and Miami-Dade County for a proper NEPA analysis. See Joint Intervenors' Motion for New Contentions at 40.

LBP-19-3, 89 NRC at __ (slip op. at 38).[34] To the extent that Contention 6-E attacks the NRC Staff's consideration of the enforcement and oversight activities of Florida and Miami-Dade County, it is inadmissible for failing to show a genuine dispute on a material issue of law, as required by 10 C.F.R. § 2.309(f)(1)(vi).

c. The third component of Contention 6-E asserts that new reports and an expert opinion submitted by Dr. Fourqurean contradict the DSEIS's conclusion in section 4.5.1.1 that the CCS's impacts on adjacent surface water bodies via the groundwater pathway will be small. See Joint Intervenors' Motion for New Contentions at 41–42, 44. However, except for their reference to Dr. Fourqurean's expert opinion, see id. at 44, Joint Intervenors fail to specify any "new report" (much less a specific statement in a new report) to support the contention's assertion. This failure renders the third component of Contention 6-E inadmissible to the extent it purports to rely on unidentified "new reports," because it fails to provide supporting facts, as required by 10 C.F.R. § 2.309(f)(1)(v). As the Commission has admonished:

> [I]t is not up to our [licensing] boards to search through pleadings or other materials to uncover arguments and support never advanced by the petitioners themselves; . . . . It is a "contention's proponent, not the licensing board," that "is responsible for formulating the contention and providing the necessary information to satisfy [its] . . . admission[.]"

USEC Inc. (American Centrifuge Plant), CLI-06-10, 63 NRC 451, 457 (2006) (quoting Statement of Policy on Conduct of Adjudicatory Proceedings, CLI-98-12, 48 NRC 18, 22 (1998)).

Regarding Dr. Fourqurean's opinion, Joint Intervenors make a passing reference to "phosphorus loadings attributable to the [CCS]" and assert broadly that Dr. Fourqurean's report "demonstrates impacts on water quality in Biscayne Bay via the groundwater pathway are impacting seagrass communities and that continued operation of the [CCS] is likely to violate

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[34] In the same decision, we observed that an agency's NEPA responsibilities can include the review of relevant enforcement and oversight activities. See LBP-19-3, 89 NRC at __ n.56 (slip op. at 38 n.56). Joint Intervenors provide no factual basis for concluding that the NRC Staff's NEPA review in the instant case was deficient. See, e.g., DSEIS at 3-47, 3-62 to 3-73 (discussing enforcement and oversight activities of Florida and Miami-Dade County).

narrative water quality standards." Joint Intervenors' Motion for New Contentions at 42, 44. This concern with phosphorous loadings overlooks that, as discussed in the DSEIS, in May 2016, FPL submitted to Florida the monitoring results from certain surface water monitoring stations in channels adjacent to the CCS for certain nutrients, including total phosphorus, and Florida "reviewed this information and determined that no exceedances of surface water quality standards were detected in the Biscayne Bay monitoring[.]" DSEIS at 3-51. Joint Intervenors (and Dr. Fourqurean) simply speculate that phosphorus in Biscayne Bay must originate from the CCS (as opposed to other known sources, such as agricultural runoff, see DSEIS at 3-50), and they speculate that water quality violations are "likely." See Joint Intervenors' Motion for New Contentions at 44. Such speculation, however, does not constitute the factual support required by section 2.309(f)(1)(v), nor does it raise a genuine dispute with the DSEIS on a material issue of law or fact, as required by section 2.309(f)(1)(vi).[35] This component of Contention 6-E is therefore not admissible.

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[35] In support of Contention 6-E, Joint Intervenors make the cursory assertion that Dr. Fourqurean's report demonstrates that CCS operations—specifically the discharge of nutrients, including phosphorus, into Biscayne Bay—are impacting seagrass communities and are likely to violate water quality standards. See Joint Intervenors' Motion for New Contentions at 42, 44. Joint Intervenors fail to acknowledge, however, that the DSEIS discusses nutrients (including phosphorus) in the CCS, see DSEIS at 3-42 to 3-44; the source of nutrients in the CCS, see id. at 3-44; the adverse impacts of nutrients on the environment, including seagrass, see id. at 3-44, 3-50; how those impacts have changed over time, see id. at 3-44; and FPL's efforts to monitor and address CCS nutrient impacts to groundwater and surface water resources. See id. at 3-48 to 3-53. Nor does Contention 6-E acknowledge the nutrient management plan that FPL implemented in 2017 pursuant to its Consent Order with Florida. That plan "is composed of three primary nutrient management strategies: (1) active algae and nutrient removal, (2) canal and berm maintenance, and (3) salinity reduction and controlled flow management." Id. at 3-44. As the DSEIS explains:

> Under this nutrient management plan, FPL has performed bench and pilot tests to find the most appropriate active nutrient and algae removal methods for the unique ecology and water chemistry of the CCS. These nutrient and algae removal methods include using chemical flocculants/coagulants, nonchemical means (i.e., physical removal), and aeration. In addition, FPL reviewed Turkey Point canal practices in order to revise them to integrate the goal of minimizing erosion and nutrient inputs from sediment and berm sources (FPL 2017b).

D. CONTENTION 7-E CHALLENGES A CATEGORY 1 ISSUE, AND JOINT INTERVENORS FAIL TO SATISFY THE RULE WAIVER CRITERIA IN 10 C.F.R. § 2.335[36]

Contention 7-E states that "[t]he DSEIS fails to take the requisite 'hard look' at impacts to groundwater quality." Joint Intervenors' Motion for New Contentions at 44. This contention challenges a Category 1 issue—i.e., "groundwater quality degradation (plants with cooling ponds in salt marshes)." 10 C.F.R. pt. 51, subpt. A, app. B, table B-1. We must therefore determine whether Joint Petitioners have satisfied the "substantial burden" imposed by 10 C.F.R. § 2.335 of demonstrating that a rule waiver is warranted. See Limerick, CLI-13-7, 78 NRC at 208.

Joint Intervenors urge us to resolve this issue in the affirmative, arguing that they satisfy the four-factor Millstone test, see supra Part II.C, for obtaining a rule waiver. See Joint Intervenors' Petition for Waiver at 6–10 (unnumbered).[37] The NRC Staff and FPL argue that the

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Id. The DSEIS further states that "[t]he impact of . . . nutrients on water quality has been the focus of CCS operational concerns." Id. at 4-22. Although increased levels of nutrients reportedly have been "found in local areas adjacent to the CCS, . . . discernable effects from CCS derived . . . nutrients . . . on Biscayne Bay or Card Sound water qualities [have] not been detected." Id. In light of the above, and "upon consideration of [Florida's and Miami-Dade County's] existing requirements and their continuing oversight of FPL's remediation efforts," the NRC Staff concluded that CCS impacts on adjacent surface water bodies during the SLR term will be small. Id. at 4-23. Nothing in Joint Intervenors' discussion of Contention 6-E demonstrates a genuine dispute of material law or fact with the above discussions and conclusions, as required by section 2.309(f)(1)(vi).

[36] As discussed supra note 27, a Category 1 issue is not subject to challenge in an NRC adjudicatory proceeding unless a petitioner obtains a section 2.335 rule waiver.

[37] Joint Intervenors also argue that a waiver is not required because "[n]o NRC regulation prohibits intervenors from challenging new information identified and evaluated by the NRC Staff in a DSEIS with respect to a Category 1 issue." Joint Intervenors' Petition for Waiver at 6 (unnumbered). We summarily reject this argument as foreclosed by Commission case law. See e.g., Exelon Generation Co. (Limerick Generating Station, Units 1 & 2), CLI-12-19, 76 NRC 377, 384 n.39 (2012) ("Fundamentally, any contention on a 'Category 1' issue amounts to a challenge to our regulation that bars challenges to generic environmental findings.") (quoting Entergy Nuclear Vermont Yankee, LLC, and Entergy Nuclear Operations, Inc. (Vermont Yankee Nuclear Power Station), CLI-07-3, 65 NRC 13, 20 (2007)).

Millstone test is not satisfied and, accordingly, that we must reject Contention 7-E because it is an impermissible challenge to a Commission regulation and, thus, outside the scope of this proceeding. See NRC Staff's Answer at 56–58; FPL's Answer to Waiver Petition at 10–18. We agree with the NRC Staff and FPL.[38]

As discussed supra Part II.C, the Commission uses the four-factor Millstone test for resolving rule waiver petitions. Pursuant to that test, to obtain a rule waiver, Joint Intervenors must show the following:

> (i) the rule's strict application would not serve the purposes for which it was adopted;
>
> (ii) the movant has alleged special circumstances that were not considered, either explicitly or by necessary implication, in the rulemaking proceeding leading to the rule sought to be waived;
>
> (iii) those circumstances are unique to the facility rather than common to a large class of facilities; and
>
> (iv) a waiver of the regulation is necessary to reach a significant safety [or environmental] problem.

Millstone, CLI-05-24, 62 NRC at 559–60 (2005) (internal quotations omitted). Joint Intervenors' waiver request founders fatally on the first Millstone factor.

Joint Intervenors argue that the first Millstone factor is satisfied because "[a]llowing a petitioner to challenge the adequacy of analysis pertaining to new information regarding a Category 2 issue while preventing such challenge with respect to new information regarding a Category 1 issue . . . would not serve the purposes for which sections 51.53(c)(3) and 51.71(d) and Appendix B were adopted." Joint Intervenors' Petition for Waiver at 7–8 (unnumbered). Joint Intervenors argue further that "prevent[ing] challenges to analysis of new information would be contrary to NEPA's requirement that agencies 'broad[ly] disseminat[e]' information to

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[38] The NRC Staff and FPL also argue that Contention 7-E should be rejected on timeliness grounds for failing to satisfy the good cause standard in 10 C.F.R. § 2.309(c). See NRC Staff's Answer at 42; FPL's Answer to Contentions at 40. Because we reject Contention 7-E as an impermissible challenge to a Category 1 issue, we need not consider the timeliness issue.

'permit[] the public and other government agencies to react to the effects of a proposed action at a meaningful time.'" Id. at 7 (unnumbered) (quoting Marsh v. Or. Nat. Res. Council, 490 U.S. 360, 371 (1989)).

Although new information related to a Category 1 issue may provide a basis for satisfying the first Millstone factor, Joint Intervenors are incorrect to the extent they argue that new information will always satisfy that factor.[39] Rather, a "petitioner must show that new and significant information, unique to a particular plant, exists . . . such that the Category 1 finding in 10 C.F.R. Part 51, Subpart A, Appendix B should be waived to litigate the issue in a site-specific proceeding." Limerick, CLI-13-7, 78 NRC at 213 (emphasis added). The Commission has stated that its designation of an environmental issue as a Category 1 issue "reflects the NRC's expectations that our NEPA obligations have been satisfied with reference to our previously conducted environmental analysis in the GEIS." Id. at 212–13. Applying that statement to the present context—in particular, to the first Millstone factor—the Commission's designation of "groundwater quality degradation (plants with cooling ponds in salt marshes)" as a Category 1 issue whose environmental impacts would be "small" during the SLR period, 10 C.F.R. pt. 51,

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[39] Joint Intervenors appear to argue that the mere existence of new information regarding a Category 1 issue satisfies the first Millstone factor because (1) such information essentially transforms a Category 1 issue into a Category 2 issue; and (2) a contrary conclusion would contravene NEPA. See Joint Intervenors' Petition for Waiver at 7–8 (unnumbered). The first rationale is foreclosed by Commission case law, which holds that "a waiver [is] required to litigate any new and significant information relating to a Category 1 issue," because "'[a]djudicating Category 1 issues site by site based merely on a claim of 'new and significant information,' would defeat the purpose of resolving generic issues in a GEIS.'" Limerick, CLI-12-19, 76 NRC at 384 (quoting Vermont Yankee, CLI-07-3, 65 NRC at 21). That new information has been identified does not, contrary to Joint Intervenors' understanding, automatically convert an issue from Category 1 to Category 2. Joint Intervenors' second rationale is likewise foreclosed by the reasoning in the above-cited Limerick decision, CLI-12-19, as well as by federal appellate case law, which holds that the NRC's "divergent treatment of generic and site-specific issues is reasonable" and permitted by NEPA. Massachusetts v. NRC, 522 F.3d 115, 120 (1st Cir. 2008); see also NRDC v. NRC, 823 F.3d 641, 652 (D.C. Cir. 2016) (holding that the NRC's rule waiver process for Category 1 issues comports with NEPA, which "'does not mandate particular hearing procedures and does not require hearings'") (quoting Beyond Nuclear v. NRC, 704 F.3d 12, 18–19 (1st Cir. 2013)).

subpt. A, app. B, table B-1, "reflects the NRC's expectations that [its] NEPA obligations have been satisfied with reference to [its] previously conducted environmental analysis in the GEIS." Limerick, CLI-13-7, 78 NRC at 212–13.

Accordingly, in our judgment, the purpose of the NRC's designation of "groundwater quality degradation (plants with cooling ponds in salt marshes)" as a Category 1 issue is satisfied here unless Joint Intervenors show that new information is significant insofar as it would lead to a determination that the environmental impact during the SLR period will be greater than "small." 10 C.F.R. pt. 51, subpt. A, app. B, table B-1. Such a showing would evince a conclusion, consistent with the first Millstone factor, that the strict application of the Category 1 issue being challenged in Contention 7-E would not serve the purpose for which it was adopted. See FPL's Answer to Waiver Petition at 14–15; Tr. at 284, 287–88, 304–05, 307. Joint Intervenors failed to make this showing. See supra note 39.

Joint Intervenors nevertheless opine that they "have not yet had an opportunity to review or challenge the sufficiency of [the DSEIS's analysis of new information]." Joint Intervenors' Petition for Waiver at 7 (unnumbered). To satisfy section 2.335(b), however, they had an obligation to provide sufficient information, via their petition and accompanying affidavit, to satisfy the four Millstone factors, including a showing that the environmental impact to groundwater quality from operation of the CCS during the SLR period would be greater than small. This they failed to do.

Because Joint Intervenors failed to satisfy the first Millstone factor, we deny their petition for a rule waiver. Absent a rule waiver, Contention 7-E is outside the scope of this proceeding, see 10 C.F.R. § 2.309(f)(1)(iii), because it constitutes an impermissible challenge to a Commission regulation. See id. § 2.335(a).

E. CONTENTION 8-E IS NOT ADMISSIBLE

In Contention 8-E, Joint Intervenors assert that "[t]he DSEIS fails to take the requisite 'hard look' at cumulative impacts on water resources." Joint Intervenors' Motion for New

Contentions at 47. They specifically challenge the NRC Staff's conclusion that FPL's "'freshening system, combined with proper operation and maintenance of the [CCS], will result in no substantial contribution to cumulative impacts on groundwater quality or associated impacts on surface water quality in Biscayne Bay during the [SLR] period.'" See id. at 48 (quoting DSEIS at 4-117). Joint Intervenors ground their challenge on the following two premises: (1) the NRC Staff improperly relies on FPL's "remediation and freshening efforts" that, according to Joint Intervenors, will not be successful, id. at 49; and (2) the NRC Staff "unlawfully substitutes the existence of state and county requirements and oversite [sic] for a proper NEPA analysis." Id.

The NRC Staff and FPL argue that Contention 8-E fails to satisfy the contention admissibility standard in 10 C.F.R. § 2.309(f)(1). See NRC Staff's Answer at 43–45; FPL's Answer to Contentions at 42–43.[40] We agree.

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[40] The NRC Staff and FPL also argue that Contention 8-E fails to satisfy the good cause standard in section 2.309(c), see supra Part II.A, because Joint Intervenors did not timely file previously available information. See NRC Staff's Answer at 45; FPL's Answer to Contentions at 42. We reject this argument for the reasons discussed supra note 28; namely, Joint Intervenors timely proffered a new contention based on, and directed at, new information in the DSEIS that was not in the ER—i.e., the NRC Staff's analysis of cumulative impacts on water resources caused by the CCS and the hypersaline plume. See Joint Intervenors' Motion for New Contentions at 48 (quoting DSEIS at 4-117); accord id. at 25; Tr. at 439–40.

We also decline FPL's invitation to reject Contention 8-E as an impermissible challenge to a Category 1 issue. See FPL's Answer to Contentions at 42. Commission regulations explicitly designate "cumulative impacts" as a Category 2 issue that can be challenged in NRC adjudicatory proceedings. See 10 C.F.R. pt. 51, subpt. A, app. B, table B-1. Although a petitioner may not improperly cloak a Category 1 issue with a Category 2 label and thereby avoid the rule waiver requirement in section 2.335, see Tr. at 441–42, 448–49; cf. LBP-19-3, 89 NRC at __ (slip op. at 37) (rejecting as Contention 1 issues discrete components of an environmental contention that purported to challenge the ER's cumulative impacts analysis), we agree with the NRC Staff and Joint Intervenors that Contention 8-E does not suffer from that infirmity. See Tr. at 441 (counsel for NRC Staff states that Contention 8-E raises a "Category 2 site-specific issue"); Joint Intervenors' Motion for New Contentions at 48 (Contention 8-E challenges "a Category 2 issue that is subject to a site-specific analysis"). Rather, as discussed in the above paragraph, Contention 8-E focuses on the NRC Staff's analysis of cumulative impacts on water resources caused by the CCS and the hypersaline plume, implicating issues that are akin to the Category 2 issue in Contention 6-E. See supra Part III.C.

1. Regarding the first premise underlying Contention 8-E, Joint Intervenors argue that the NRC Staff improperly relies on the success of FPL's remediation and freshening efforts for the conclusion that the cumulative impacts of the operation of Turkey Point Units 3 and 4 during the SLR period on groundwater and surface water quality in Biscayne Bay will be insubstantial. See Joint Intervenors' Motion for New Contentions at 48–49. In particular, Joint Intervenors contest the DSEIS's conclusion that "[FPL's] recovery well system will be 'successful' in retracting the hypersaline plume before the end of the current license period[.]" Id. at 48.

At the outset, we note that Joint Intervenors fail to specify any factual statement, document, or expert opinion to support this aspect of the contention. This failure alone renders Contention 8-E inadmissible. As the Commission has declared, "[i]t is a 'contention's proponent, not the licensing board,' that 'is responsible for formulating the contention and providing the necessary information to satisfy [its] . . . admission.'" USEC Inc. (American Centrifuge Plant), CLI-06-10, 63 NRC at 457 (quoting Statement of Policy on Conduct of Adjudicatory Proceedings, CLI-98-12, 48 NRC at 22).[41]

In any event, Joint Intervenors provide no support for their assertion that the NRC Staff failed to take NEPA's required "hard look" at the proposed action's cumulative impacts on water resources. Joint Intervenors point to a portion of a single sentence in the DSEIS, which says in full:

> As stated in Section 4.5.1.2 of this [DSEIS], current modeling projections indicate that FPL's recovery well system will be successful in retracting the hypersaline plume back to within the boundaries of the CCS within 10 years of the startup

[41] We acknowledge that Joint Intervenors' motion includes a section (Section IV.B) entitled "New Information" that summarizes their "expert opinions" and "new reports." See Joint Intervenors' Motion for New Contentions at 25–31. In the section of their motion arguing that Contention 8-E satisfies the admissibility requirement in section 2.309(f)(1)(v) (i.e., Section IV.F), Joint Intervenors include a solitary citation (without any discussion or explanation) to Section IV.B. See id. at 49. This passing and non-descript reference to a lengthy section in their motion fails to satisfy section 2.309(f)(1)(v), which requires a petitioner to provide "a concise statement of the alleged facts or expert opinions" that support the contention, along with "references to the specific sources and documents[.]" 10 C.F.R. § 2.309(f)(1)(v).

> (i.e., by about 2028) while also retracting the saltwater interface back to the east from its current location.

DSEIS at 4-116; see Joint Intervenors' Motion for New Contentions at 48. But that sentence does not address, much less impugn, the NRC Staff's review of the relevant groundwater modeling. In this regard, the DSEIS states as follows:

> In order to stop and then retract the westward migration of hypersaline groundwater originating from the CCS, the 2016 [Florida] Consent Order requires FPL to permit, construct, and operate a recovery well system to remediate the hypersaline plume in the Biscayne aquifer. This requirement is also consistent with the 2015 Consent Agreement between FPL and Miami-Dade County . . . .
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> * * * *
>
> In its [ER], FPL stated that groundwater modeling of the recovery well system operation indicates that the westward migration of the hypersaline plume will be stopped in 3 years of operation, with retraction of the hypersaline plume north and west of the CCS beginning in 5 years. FPL further projects that system operation will achieve retraction of the plume back to the FPL site boundary within 10 years, as required by the 2016 [Florida] Consent Order . . . . FPL is required to conduct periodic continuous surface electromagnetic mapping surveys to delineate the extent of the hypersaline plume in order to measure the success of recovery and remediation efforts and report the results to [Florida]. After 5 years of system operation, FPL must provide a report to [Florida] that evaluates the effectiveness of the recovery well system in retracting the hypersaline plume to the L-31E Canal within 10 years. If FPL's report shows that the remediation efforts will not retract the hypersaline plume to the L-31E Canal within 10 years, FPL must develop and submit an alternative plan to [Florida] for its approval.

DSEIS at 3-70 to 3-71 (citations omitted); see also id. at 3-73 (discussing FPL's modeling "analysis using the variable density, three-dimensional groundwater model . . . to 'allocate relative contributions of other entities or factors to the movement of the saltwater interface'"); id. at 4-27.

The DSEIS also reviewed the layout, operation, and efficacy of the hypersaline groundwater recovery well system:

> The installed full-scale hypersaline groundwater recovery wells system consists of 10 hypersaline groundwater recovery (extraction) wells (i.e., numbered RW-1 through RW-10), generally located along the western edge of the CCS, and the Class 1 deep injection well (DIW-1) for disposal of the recovered hypersaline groundwater . . . . Between September 2016 and May 2018, the testing and recovery well systems have extracted and disposed of approximately 8,285

> million gallons (31.4 million [cubic meters]) of hypersaline groundwater, with the removal of 1.92 million tons (1.74 million metric tons) of salt from the Biscayne aquifer. Section 3.5.2.3, "Groundwater Use," provides additional details on the groundwater well system.

DSEIS at 3-70 (citation omitted); see also id. at 3-67 to 3-73 (discussing FPL's groundwater monitoring program).

The DSEIS acknowledged that groundwater models "entail substantial uncertainty" because they are "approximations of natural systems and are dependent on a number of input variables based on assumptions regarding present and future environmental conditions." DSEIS at 4-27. Nevertheless, based on the NRC Staff's review of (1) FPL's groundwater modeling and modeling results; (2) the operation and efficacy of FPL's hypersaline groundwater recovery well system; (3) FPL's groundwater monitoring program; and (4) the regulatory enforcement and oversight of Florida and Miami-Dade County, the NRC Staff concluded that FPL's groundwater remediation efforts would be successful. See id. at 4-27 to 4-28; 4-116 to 4-117. Joint Intervenors do not specify a deficiency in the NRC Staff's review, nor do they provide the necessary support to show the existence of a genuine dispute of material law or fact. This aspect of Contention 8-E is therefore not admissible pursuant to 10 C.F.R. § 2.309(f)(1)(vi).[42]

2. Regarding the second premise underlying Contention 8-E, Joint Intervenors assert that the NRC Staff "unlawfully substitutes the existence of state and county requirements and oversite [sic] for a proper NEPA analysis." Joint Intervenors' Motion for New Contentions at 49. This is the identical argument that Joint Intervenors advanced in support of Contention 6-E, and we reject it here for the same two reasons that we rejected it there. See supra Part III.C.3.b. First, contrary to Joint Intervenors' assertion, the NRC Staff did not base its cumulative impacts conclusion in section 4.16.2.1 of the DSEIS solely on the existence of state

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[42] In support of their assertion that Contention 8-E raises a genuine dispute on a material issue of law or fact, Joint Intervenors rely on the information and arguments they advanced in support of Contention 6-E. See Joint Intervenors' Motion for New Contentions at 49. That reliance is misplaced in light of our conclusion, see supra Part III.C.3, that Contention 6-E fails to satisfy section 2.309(f)(1)(vi).

and county enforcement requirements and oversight. Rather, as discussed supra Part III.E.1, the NRC Staff also considered (1) FPL's groundwater modeling and modeling results; (2) the operation and efficacy of FPL's hypersaline groundwater recovery well system; and (3) FPL's groundwater monitoring program. Insofar as Contention 8-E fails to acknowledge all the factors underlying the NRC Staff's cumulative impacts conclusion, it is based on an erroneously incomplete factual predicate, which renders it inadmissible for failing to provide supporting alleged facts, as required by section 2.309(f)(1)(v), and for failing to show a genuine dispute on a material issue of law or fact, as required by section 2.309(f)(1)(vi).

Second, and in any event, Joint Intervenors are incorrect as a matter of law in their notion that NEPA proscribes the NRC Staff from considering local enforcement and oversight activities when preparing the DSEIS. See supra text accompanying note 34. Contention 8-E is therefore not admissible.

F. CONTENTION 9-E IS NOT ADMISSIBLE

In Contention 9-E, Joint Intervenors assert that "[t]he DSEIS fails to take the requisite 'hard look' at impacts to groundwater use conflicts." Joint Intervenors' Motion for New Contentions at 49. This contention disputes the NRC Staff's conclusion in section 4.5.1.2 that impacts on groundwater use conflicts from continued operation of the Turkey Point units during the SLR period will be small for the Biscayne aquifer and moderate for the Upper Floridan aquifer. See id. at 51. According to Joint Intervenors, "the rate of groundwater withdrawal necessary to hit salinity targets and retract the hypersaline plume is substantially higher than evaluated in the DSEIS," id. at 52, which will result in greater groundwater use conflicts than contemplated in the DSEIS. See id. To support this contention, Joint Intervenors rely on the

expert opinion of Mr. E.J. Wexler. See id. at 52 nn.206 & 207 (citing to Declaration of E.J. Wexler at 2 (June 28, 2019) [hereinafter Wexler Decl.]).[43]

The NRC Staff and FPL argue that Contention 9-E fails to satisfy the contention admissibility standard in 10 C.F.R. § 2.309(f)(1). See NRC Staff's Answer at 47–51; FPL's Answer to Contentions at 45–47.[44] We agree.

Joint Intervenors' sweeping assertion that the DSEIS fails to take a hard look at impacts on groundwater use conflicts ignores the DSEIS's extensive consideration of that topic. See Joint Intervenors' Motion for New Contentions at 49–50. The DSEIS's analyses of groundwater use conflicts for the Biscayne and Upper Floridan aquifers include detailed discussions on FPL's water withdrawal rates, see DSEIS at 4-28 to 4-33; the relevant State water withdrawal permits and authorizations, see id. at 4-29 to 4-31; FPL's legal obligations under those permits and authorizations, including withdrawal allocations and mitigative actions to avoid harm to other groundwater users, see id. at 4-29 to 4-32; and the specific modeling and confirmatory evaluations performed by FPL and State regulators to support issuance of the permits.[45] See id. at 4-29 to 4-33.

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[43] In support of Contention 9-E, Joint Intervenors also argue that the NRC Staff "unlawfully substitute[d] the existence of state and county requirements and oversite [sic] for a proper NEPA analysis." Joint Intervenors' Motion for New Contentions at 50. For the reasons discussed supra Parts III.C.3.b and III.E.2, this argument lacks merit.

[44] The NRC Staff and FPL also argue that Contention 9-E fails to satisfy the good cause standard in section 2.309(c), see supra Part II.A, because Joint Intervenors did not timely file previously available information. See NRC Staff's Answer at 51–52; FPL's Answer to Contentions at 44–45. We reject this argument for the reasons discussed supra notes 28 and 40; namely, Joint Intervenors timely proffered a new contention based on, and directed at, new information in the DSEIS that was not in the ER—i.e., the NRC Staff's discussion of groundwater modeling as it relates to groundwater use conflicts. See Joint Intervenors' Motion for New Contentions at 51–52; accord id. at 25.

[45] Significantly, the DSEIS states that Florida reviewed FPL's groundwater modeling, and it also performed confirmatory analyses that included a modeling scenario under drought conditions. See DSEIS at 4-29 to 4-30. The NRC Staff independently reviewed this material. See, e.g., id. at 4-29 ("The NRC Staff reviewed the modeling report (Tetra Tech 2016) as well as the [Florida] report and impacts evaluation that were included in FPL's water use individual permit (Permit No. 13-06251-W) (SFWMD 2017a).").

Informed by the above analyses in the DSEIS, the NRC Staff made the following determination:

> [FPL reasonably] predicts retraction of the westward [hypersaline] plume to the edge of the CCS by about 5 years and complete retraction within 10 years (i.e., by about 2028), with minor aquifer drawdown impacts. Thus, FPL would achieve the compliance deadline for retraction of the hypersaline plume and its effect on the location of the regional saltwater interface, as set forth in its 2016 consent order with [Florida] (FDEP 2016e), without undue impact on groundwater resources or producing unintended groundwater use conflicts.

DSEIS at 4-30; accord id. at 4-32.

The NRC Staff summarized its groundwater use conflicts evaluation as follows:

> In summary, based on the evaluation presented above, the NRC Staff anticipates that operation of the recovery well system will not result in any interference with existing permitted uses of groundwater, will not impact natural resources, and will not result in lateral movement of the saltwater interface in the Biscayne aquifer. Further, intermittent operation of FPL's marine wells is not expected to substantially alter groundwater flow or result in any substantial drawdown in the Biscayne aquifer. For the Upper Floridan aquifer, groundwater modeling performed to evaluate aquifer response from continued operation of FPL's freshening well system indicates the potential for appreciable drawdowns in offsite production wells, including in potable water wells located approximately 10 [miles] (16 [kilometers]) from the Turkey Point site. While the projected drawdowns would be noticeable in affected offsite wells, the effects would not be expected to affect water availability or impair the Upper Floridan aquifer as a resource. Consistent with these impacts, the NRC Staff concludes that the potential for groundwater use conflicts from FPL's groundwater withdrawals would be SMALL for the Biscayne aquifer and MODERATE for the Upper Floridan aquifer during the [SLR] term.

DSEIS at 4-33.

Notwithstanding the NRC Staff's consideration of the groundwater use conflicts issue, Joint Intervenors dispute the NRC Staff's conclusions regarding potential groundwater use conflicts for the Biscayne and Upper Floridan aquifers, asserting that the Wexler Declaration supports the following two premises upon which Contention 9-E is grounded: (1) FPL's effort to reduce the CCS salinity to 34 PSU is not working and is unlikely to work in the future; and (2) FPL's effort to mitigate the hypersaline plume is not working and is unlikely to work in the future. See Joint Intervenors' Motion for New Contentions at 52. Based on these two premises, Joint Intervenors claim that FPL's groundwater withdrawal for CCS freshening and plume

mitigation will be substantially higher than evaluated in the DSEIS, which will give rise to greater groundwater use conflicts than the DSEIS contemplated. See id. Joint Intervenors fail, however, to support these two premises, and thus they fail to raise a genuine dispute with the DSEIS on a material issue of law or fact.[46]

First, Mr. Wexler fails to support the premise that FPL's effort to reduce the CCS salinity to 34 PSU is not working and is unlikely to work in the future.[47] As discussed supra Part III.C.3.a, where we rejected this identical premise, the DSEIS shows that (1) the targeted deadline for FPL to reach a CCS salinity level of 34 PSU is May 2021; (2) the NRC Staff independently assessed the reasonableness of the model on which that deadline is based; and (3) Joint Intervenors failed to show a genuine dispute of material fact with regard to that timeline or the reasonableness of the model on which the timeline is based. See supra note 31. Mr. Wexler likewise fails to provide support to show a genuine dispute of material fact regarding that timeline or the reasonableness of the model on which the timeline is based, rendering this aspect of Contention 9-E inadmissible pursuant to 10 C.F.R. § 2.309(f)(1)(v) and (vi).

The second premise on which Contention 9-E is based—i.e., the claim that FPL's effort to mitigate the hypersaline plume is not working and is unlikely to work in the future—similarly lacks support. Mr. Wexler asserts that his analysis using FPL's model "shows that without

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[46] In support of their challenge to the NRC Staff's conclusions regarding potential groundwater use conflicts for the Biscayne and Upper Floridan aquifers, Joint Intervenors broadly cite to Section IV.B of their motion, see Joint Intervenors' Motion for New Contentions at 52 n.205, and to page 2 of Mr. Wexler's Declaration, see id. at 52 nn.206 & 207. Those references describe concerns about groundwater modeling and the NRC Staff's analysis, but they fail to provide a credible factual roadmap showing that those concerns will cause the predicted impacts on groundwater use conflicts to be different from those stated in the DSEIS. This failure, standing alone, renders Contention 9-E inadmissible pursuant to 10 C.F.R. § 2.309(f)(1)(vi) for failing to show a genuine dispute of material fact.

[47] Mr. Wexler simply states that FPL "was unable to achieve freshening of the CCS . . . from November 2016 to May 2017, salinities in the CCS did not go down to 35 PSU (FPL 2017a), at the end of May 2017, average salinity concentrations in the . . . CCS were 64.9 PSU (FPL 2017b)." Wexler Decl. at 4. As we explained supra Part III.C.3.a, these statements do not demonstrate that FPL's freshening efforts are not working or that they are likely to fail. See supra notes 30–32 and accompanying text.

freshening the CCS, the recovery system will not be able to meet the target of retracting the hypersaline water." Wexler Decl. at 2. In other words, Mr. Wexler states that the second premise (i.e., that FPL's current plan to mitigate the hypersaline plume will not succeed) follows inexorably from the first premise (i.e., that FPL's current plan to reduce CCS salinity will not succeed). This is an example of heaping conjecture upon conjecture. As we have shown, the first premise lacks adequate support; it therefore follows that the second premise, to the extent it is grounded on the first premise, likewise lacks adequate support.

Notably, the second premise is identical to the premise Joint Intervenors advanced in support of Contention 8-E. See Joint Intervenors Motion for New Contentions at 48 (disputing that "[FPL's] recovery well system will be 'successful' in retracting the hypersaline plume before the end of the current license period"). In rejecting that premise in the context of Contention 8-E, we stated that the NRC Staff's conclusion was "based on its review of (1) FPL's groundwater modeling and modeling results; (2) the operation and efficacy of FPL's hypersaline groundwater recovery well system; (3) FPL's groundwater monitoring program; and (4) the regulatory enforcement and oversight of Florida and Miami-Dade County[.]" Supra Part III.E.1. We concluded that Joint Intervenors failed to identify a deficiency in the NRC Staff's review, and they failed to provide the necessary support to show a genuine dispute on a material issue of law or fact, as required by 10 C.F.R. § 2.309(f)(1)(v) and (vi). See id. The second aspect of Contention 9-E suffers from the same infirmities.[48]

Mr. Wexler nevertheless asserts that data from a "new, independently developed model" shows that "freshening of the CCS will be difficult to achieve with the volumes of water currently

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[48] Mr. Wexler also claims that "new water quality information" supports his views. See Wexler Decl. at 2. But, as the NRC Staff correctly states, see NRC Staff's Answer at 48, this so-called "new" information—i.e., two FPL reports issued in 2017—was considered by the NRC Staff in the DSEIS. See, e.g., DSEIS at 3-41, 3-42, 3-44 to 3-47, 3-49, 6-15. Similarly, the 2016 and 2018 Tetra Tech models cited by Mr. Wexler were likewise considered in the DSEIS. See id. at 3-73, 4-26, 6-31.

being used and the locations selected for adding the water." Wexler Decl. at 2. Even assuming arguendo that Mr. Wexler were correct that mitigation goals will be difficult to achieve under the current plan, that does not establish a genuine dispute of material fact with the DSEIS, because this concern fails to acknowledge the DSEIS's discussion that Florida regulatory authorities are actively engaged in the regulation and oversight of FPL's (1) reduction of CCS salinity; (2) mitigation of the hypersaline plume; (3) withdrawal of groundwater; and (4) contribution to groundwater use conflicts. See DSEIS at 4-28 to 4-33. Mr. Wexler provides no reason to conclude that Florida would refrain from modifying current requirements affecting the "volumes of water currently being used and the locations selected for adding the water[,]" Wexler Decl. at 2—if necessary—to achieve the desired water quality goals in a manner that does not contribute significantly to groundwater use conflicts. As the DSEIS states, "even if the groundwater remediation timeframe is extended or delayed, the modeling results and the safeguards imposed by [Florida] through permit conditions provide reasonable assurance that any impacts on groundwater resources and users would be mitigated, while producing beneficial effects on groundwater quality."[49] DSEIS at 4-30.

In short, Contention 9-E is not admissible because its lacks supporting information and it fails to establish a genuine dispute of material law or fact with the DSEIS, as required by 10 C.F.R. § 2.309(f)(1)(v) and (vi).

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[49] The water use permit issued to FPL by the South Florida Water Management District (SFWMD) for operation of the recovery well system bounds the total installed production capacity of the recovery wells. See DSEIS at 4-29. The permit also requires that FPL mitigate interference with existing legal uses of groundwater and mitigate harm to natural resources, possibly by reducing or otherwise altering groundwater withdrawals. See id. As necessary, SFWMD can order FPL to reduce withdrawals or undertake other mitigative measures. See id. at 4-32. Notably, the DSEIS states that "FPL does not anticipate the need to withdraw groundwater at a rate exceeding its current permits and/or authorizations during the [SLR] period (FPL 2018f)." Id. at 4-33. If such a need were to arise, FPL would be required to obtain approval from the responsible Florida regulatory authority. See Tr. at 464.

IV. CONCLUSION AND ORDER

For the foregoing reasons, we (1) deny Joint Intervenors' petition for rule waiver for Contention 7-E; and (2) deny Joint Intervenors' motion to admit newly proffered contentions, thereby terminating this proceeding at the Licensing Board level.

An appeal to the Commission may be filed in accordance with the provisions in 10 C.F.R. § 2.311(b).

It is so ORDERED.

THE ATOMIC SAFETY
AND LICENSING BOARD

/RA/

E. Roy Hawkens, Chairman
ADMINISTRATIVE JUDGE

/RA/

Dr. Sue H. Abreu
ADMINISTRATIVE JUDGE

/RA/

Dr. Michael F. Kennedy
ADMINISTRATIVE JUDGE

Rockville, Maryland
October 24, 2019

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of	)	
	)	
FLORIDA POWER & LIGHT COMPANY	)	Docket Nos. 50-250-SLR
	)	50-251-SLR
(Turkey Point Nuclear Generating Units 3 & 4)	)	

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing **Memorandum and Order (Denying Requests for Rule Waiver and Admission of Newly Proffered Contentions, and Terminating Proceeding) (LBP-19-08)** have been served upon the following persons by Electronic Information.

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[Original signed by Clara Sola]
Office of the Secretary of the Commission

Dated at Rockville, Maryland,
this 24th day of October 2019.