LBP-24-08

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD PANEL

Before Administrative Judges:

Emily I. Krause, Chair
Dr. Sue H. Abreu
Dr. Michael F. Kennedy

In the Matter of: FLORIDA POWER & LIGHT COMPANY (Turkey Point Nuclear Generating Units 3 and 4)	Docket Nos. 50-250-SLR-2 50-251-SLR-2 ASLBP No. 24-981-01-SLR-BD01 August 27, 2024

MEMORANDUM AND ORDER
(Dismissing Proposed New and Amended Contentions and Terminating Proceeding)

This proceeding concerns the twenty-year subsequent renewal of the operating licenses for Turkey Point Nuclear Generating Units 3 and 4. Miami Waterkeeper has filed a motion to admit new and amended contentions challenging the Nuclear Regulatory Commission Staff's (Staff) 2024 Final Supplemental Environmental Impact Statement (Final SEIS). Along with its motion, Miami Waterkeeper filed a petition to waive 10 C.F.R. §§ 51.53(c)(3) and 51.71(d) and 10 C.F.R. Part 51, Subpart A, Appendix B. For the reasons set forth below, we deny Miami Waterkeeper's motion and the associated waiver request and terminate the proceeding.

I. BACKGROUND

In March of this year, we granted Miami Waterkeeper's hearing request challenging the Staff's 2023 Draft Supplemental Environmental Impact Statement (2023 Draft SEIS) and admitted a narrowed portion of one contention for hearing.[1] As admitted, the contention stated that: "[t]he 2023 Draft SEIS fails to take a hard look at impacts to groundwater quality because it does not include an explanation for the Staff's conclusion that the uncertainty in retracting the hypersaline groundwater plume could result in moderate impacts."[2]

On March 29, 2024, the Staff issued the Final SEIS.[3] Shortly thereafter, the Staff, joined by Florida Power & Light Company (FPL) and Miami Waterkeeper, moved to dismiss the admitted contention.[4] The Staff asserted, and the other parties agreed, that the Final SEIS contained the purportedly omitted explanation for the Staff's groundwater-quality impacts determination, and as such, the contention became moot.[5] We granted the unopposed motion and dismissed the contention.[6]

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[1] LBP-24-3, 99 NRC 39, 70 (2024). Because our decision in LBP-24-3 provides a detailed account of the adjudicatory history of Florida Power & Light Company's (FPL) subsequent license renewal application for Turkey Point Nuclear Generating Units 3 and 4, we do not repeat it here.

[2] Id. at 60; see NUREG-1437, Supplement 5a, Second Renewal, "Site-Specific Environmental Impact Statement for License Renewal of Nuclear Plants," Regarding Subsequent License Renewal for Turkey Point Nuclear Generating Unit Nos. 3 and 4, Draft Report for Comment (Aug. 2023) (ADAMS Accession No. ML23242A216) (2023 Draft SEIS).

[3] NUREG-1437, Supplement 5a, Second Renewal, "Site-Specific Environmental Impact Statement for License Renewal of Nuclear Plants," Regarding Subsequent License Renewal for Turkey Point Nuclear Generating Unit Nos. 3 and 4, Final Report (Mar. 2024) (ML24087A061) (Final SEIS); Board Notification (Mar. 29, 2024).

[4] Joint Unopposed Motion to Dismiss Reformulated Contention 1 as Moot and Position of the NRC Staff and Miami Waterkeeper Regarding Opportunity to File New or Amended Contentions (Apr. 4, 2024) (Motion to Dismiss).

[5] Id. at 2.

[6] Licensing Board Order (Granting Unopposed Motion to Dismiss Contention 1) (May 9, 2024) at 2 (unpublished) (Order Granting Motion to Dismiss).

On May 8, 2024, Miami Waterkeeper filed the motion to admit new and amended contentions now pending before us.[7] Miami Waterkeeper raises six issues, labeled Contentions 1-A, 1-B, 1-C, 2, 3-A, and 3-B.[8] Contentions 1-A, 1-B, and 1-C challenge the Staff's consideration of groundwater-quality impacts.[9] Contention 2 challenges the Staff's consideration of the likelihood of impacts to the Miami cave crayfish, which the U.S. Fish and Wildlife Service has proposed for listing as a threatened species under the Endangered Species Act.[10] And Contentions 3-A and 3-B challenge, respectively, the Staff's consideration of cumulative impacts and severe accident mitigation alternatives (SAMA), both in relation to impacts from climate change.[11] Additionally, Miami Waterkeeper petitioned to waive sections 51.53(c) and 51.71(d) and Part 51, Subpart A, Appendix B out of an abundance of caution, in the event the Board were to interpret those sections, along with any other Commission regulations, to preclude Miami Waterkeeper from raising a challenge to the SAMA analysis in Contention 3-B.[12]

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[7] Miami Waterkeeper's Motion to Admit Amended and New Contentions in Response to NRC Staff's Final Site-Specific Environmental Impact Statement (May 8, 2024) (New and Amended Contentions); see Licensing Board Order (Granting Motion for Extension of Time) (Apr. 26, 2024) at 2 (unpublished); Initial Scheduling Order (Mar. 26, 2024) at 2 (unpublished).

[8] Miami Waterkeeper states that, with its motion, it has filed one amended contention (Contention 1) and two new contentions (Contentions 2 and 3). See New and Amended Contentions at 1–2, 5. But Miami Waterkeeper also refers to Contentions 1-A, 1-B, 1-C, 2, 3-A, and 3-B individually, and it provides standalone contention admissibility analyses for each. See id. §§ III and IV. We will follow Miami Waterkeeper's approach and individually address the timeliness and admissibility of Contentions 1-A, 1-B, 1-C, 2, 3-A, and 3-B.

[9] Id. at 1–2.

[10] Id. at 2; see Endangered and Threatened Wildlife and Plants; Threatened Species Status with Section 4(d) Rule for the Miami Cave Crayfish, 88 Fed. Reg. 64,856 (Sept. 20, 2023) (corrected 88 Fed. Reg. 65,356 (Sept. 22, 2023)) (Proposed Listing).

[11] New and Amended Contentions at 2, 53–54, 69–70.

[12] See Miami Waterkeeper's Petition for Waiver of 10 C.F.R. §§ 51.53(c)(3) and 51.71(d) and 10 C.F.R. Part 51, Subpart A, Appendix B (May 8, 2024) at 1 n.1 (Waiver Petition); New and Amended Contentions at 35.

On June 3, 2024, the Staff and FPL filed answers opposing the admission of Miami Waterkeeper's new and amended contentions.[13] Miami Waterkeeper replied to the Staff's and FPL's answers on June 12, 2024.[14] In those filings the parties also addressed, at our request, whether the Commission's recent approval of a final rule amending 10 C.F.R. Part 51 had any impact on this adjudication.[15] The parties agree that the final rule has no impact on the proceeding at this time.[16]

On June 24, 2024, FPL filed a motion to strike portions of Miami Waterkeeper's reply, and Miami Waterkeeper opposed that motion on July 3, 2024.[17] We convened a prehearing conference in the Atomic Safety and Licensing Board Panel's Hearing Room on July 17, 2024,

[13] NRC Staff Answer Opposing Miami Waterkeeper Motion to Admit Amended and New Contentions and Petition for Waiver (June 3, 2024) (Staff Answer); Florida Power & Light Company's Answer to Miami Waterkeeper's Motion to Admit Amended and New Contentions in Response to the NRC Staff's Final Site-Specific Environmental Impact Statement (June 3, 2024) (FPL Answer).

[14] Miami Waterkeeper's Reply in Support of Motion to Admit Amended and New Contentions (June 12, 2024) (Reply).

[15] See Staff Answer at 82–86; FPL Answer at 6–9; Reply at 3–4; Licensing Board Order (Requesting that Parties Address Applicability of Part 51 Amendments and Providing Notice of Dates for Possible Oral Argument) (May 21, 2024) at 2 (unpublished). See generally Staff Requirements—SECY-24-0017—Final Rule: Renewing Nuclear Power Plant Operating Licenses—Environmental Review (RIN 3150-AK32; NRC-2018-0296) (May 16, 2024) (ML24137A213 (package)). The Final Rule will become effective on September 5, 2024. Final Rule, Renewing Nuclear Power Plant Operating Licenses—Environmental Review, 89 Fed. Reg. 64,166 (Aug. 6, 2024) (corrected 89 Fed. Reg. 65,755 (Aug. 13, 2024)) (Part 51 Amendments). The rule is supported by a revised Generic Environmental Impact Statement for License Renewal. See NUREG-1437, "Generic Environmental Impact Statement for License Renewal of Nuclear Plants," rev. 2, vols. 1, 2, and 3 (Aug. 2024) (ML24086A526, ML24086A527, ML24086A528).

[16] See Staff Answer at 83–84; FPL Answer at 8–9; Reply at 3–4.

[17] Florida Power & Light Company's Motion to Strike Portions of the Reply Filed by Miami Waterkeeper (June 24, 2024) (Motion to Strike); Miami Waterkeeper's Answer to Florida Power & Light Company's Motion to Strike Portions of Its Reply (July 3, 2024) (Miami Waterkeeper Response to Motion to Strike).

in Rockville, Maryland, to hear argument from the parties on the admissibility of Miami Waterkeeper's proposed new and amended contentions.[18]

II. ANALYSIS

A. Miami Waterkeeper's Proposed New and Amended Contentions

As we explained in our decision ruling on Miami Waterkeeper's hearing request, the Commission's contention admissibility rule is "strict by design."[19] Contentions are evaluated against a six-part test that requires the proponent to provide (1) a specific statement of the issue of law or fact it seeks to raise and (2) a brief explanation of the basis for each contention.[20] The proponent of a contention also must demonstrate that its issues are (3) within the scope of the proceeding and (4) material to the findings the NRC must make to support the underlying licensing action.[21] And its claims must be supported with (5) "a concise statement of . . . alleged facts or expert opinions"—with references to specific sources and documents and (6) must identify specific portions of the application in dispute or information that should have been included as a matter of law—sufficient to show "that a genuine dispute exists with the applicant . . . on a material issue of law or fact."[22]

Contentions must have "some reasonably specific factual or legal basis."[23] For contentions that challenge the agency's compliance with the National Environmental Policy Act

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[18] See Tr. at 57.

[19] LBP-24-3, 99 NRC at 53 (citations omitted).

[20] 10 C.F.R. § 2.309(f)(1)(i)–(ii).

[21] Id. § 2.309(f)(1)(iii)–(iv).

[22] Id. § 2.309(f)(1)(v)–(vi).

[23] Entergy Nuclear Vermont Yankee, LLC, and Entergy Nuclear Operations, Inc. (Vermont Yankee Nuclear Power Station), CLI-15-20, 82 NRC 211, 221 (2015).

(NEPA), simply suggesting that additional information could be considered is not enough.[24] Materiality, in the context of the agency's NEPA review, requires a showing that the NEPA analysis lacks information the agency is obligated to include or a demonstration that the agency's analysis is otherwise unreasonable.[25] Similarly, for contentions that challenge the agency's compliance with the Endangered Species Act, the proponent of a contention must show that the agency failed to follow the required process or that the agency's analysis lacks required information.[26] In short, "contentions admitted for litigation must point to a deficiency" rather than raise mere "'suggestions' of other ways an analysis could have been done, or other details that could have been included."[27]

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[24] See, e.g., NextEra Energy Seabrook, LLC (Seabrook Station, Unit 1), CLI-12-5, 75 NRC 301, 323–24 (2012).

[25] See id. at 323 ("[T]he proper question is not whether there are plausible alternative choices for use in the analysis, but whether the analysis that was done is reasonable under NEPA."); see also Ctr. for Biological Diversity v. FERC, 67 F.4th 1176, 1182 (D.C. Cir. 2023) ("When 'reviewing an agency's compliance with NEPA, the rule of reason applies.'" (quoting Minisink Residents for Env't Preservation & Safety v. FERC, 762 F.3d 97, 112 (D.C. Cir. 2014))).

[26] See, e.g., Crow Butte Resources, Inc. (In Situ Leach Facility, Crawford, Nebraska), LBP-15-11, 81 NRC 401, 444–46 (2015), review granted in part and rev'd in part on other grounds, CLI-19-5, 89 NRC 329 (2019) (finding that a contention challenging the agency's compliance with the procedural requirements of the Endangered Species Act was timely but became moot when the Staff completed the required consultation); Powertech USA, Inc. (Dewey-Burdock In Situ Uranium Recovery Facility), LBP-13-9, 78 NRC 37, 98–101 (2013) (admitting a contention that challenged whether the agency completed the required consultation process for listed threatened and endangered species). See generally 16 U.S.C. § 1536(a)(4); 50 C.F.R. § 402.10.

[27] Seabrook, CLI-12-5, 75 NRC at 323; see also System Energy Resources, Inc. (Early Site Permit for Grand Gulf ESP Site), CLI-05-4, 61 NRC 10, 13 (2005) ("Our boards do not sit to 'flyspeck' environmental documents or to add details or nuances. If the [environmental report] (or [environmental impact statement]) on its face 'comes to grips with all important considerations' nothing more need be done.") (citations omitted)).

Contentions must be raised at the earliest opportunity.[28] Thus, in addition to the six-part contention admissibility test, any contentions filed after the hearing request deadline must meet the timeliness requirements in 10 C.F.R. § 2.309(c).[29] In NRC proceedings, timeliness is synonymous with "good cause," which is demonstrated by showing that "(i) [t]he information upon which the filing is based was not previously available; (ii) [t]he information upon which the filing is based is materially different from information previously available; and (iii) [t]he filing has been submitted in a timely fashion based on the availability of the subsequent information."[30]

Miami Waterkeeper filed its proposed new and amended contentions in accordance with our scheduling directives; therefore, we conclude that Miami Waterkeeper has satisfied the requirement in subsection 2.309(c)(1)(iii) to submit its filing in a timely fashion.[31] We now turn to whether Miami Waterkeeper has satisfied the two remaining timeliness requirements in subsections (c)(1)(i) and (ii) and the six contention admissibility factors in section 2.309(f)(1).[32] Failure to meet any one of these requirements is sufficient grounds to dismiss a contention.[33]

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[28] 10 C.F.R. § 2.309(f)(2); Entergy Nuclear Generation Co. and Entergy Nuclear Operations, Inc. (Pilgrim Nuclear Power Station), CLI-12-10, 75 NRC 479, 482–83 (2012) ("Our process demands that petitioners carefully review . . . and raise all their distinct challenges at the outset, avoiding piecemeal supplemental contentions unless they could not have been raised earlier."); see also Crow Butte Resources, Inc. (In Situ Leach Uranium Recovery Facility), CLI-20-8, 92 NRC 255, 259–60 (2020); Northern States Power Co. (Prairie Island Nuclear Generating Plant, Units 1 and 2), CLI-10-27, 72 NRC 481, 496 (2010); AmerGen Energy Co., LLC (Oyster Creek Nuclear Generating Station), CLI-09-7, 69 NRC 235, 271–72 (2009).

[29] Crow Butte, CLI-20-8, 92 NRC at 260, 265; 10 C.F.R. § 2.309(c)(1), (4).

[30] 10 C.F.R. § 2.309(c)(1)(i)–(iii). We may not entertain a motion to admit new and amended contentions unless we conclude that the proponent has demonstrated good cause. Id.

[31] See supra note 7.

[32] Miami Waterkeeper already has established standing; therefore, we need not address it here. See LBP-24-3, 99 NRC at 52; 10 C.F.R. § 2.309(c)(4).

[33] See 10 C.F.R. § 2.309(c)(1), (f)(1).

1. Contention 1-A: "The [Final SEIS] fails to adequately analyze groundwater conditions for the 'no action' alternative, which should be the conditions present when the plant is not operational."

In Contention 1-A, Miami Waterkeeper asserts that the Staff has "made only a cursory effort to evaluate the baseline conditions for the no action alternative," and therefore the Staff has failed to "fully analyze and present . . . the environmental difference between extending the license and continuing the use of the cooling canal system [(CCS)] for Units 3 and 4" and not extending the license.[34] Miami Waterkeeper acknowledges that the Staff revised its discussion of groundwater-quality impacts in section 2.8.3 of the Final SEIS and incorporated information that Miami Waterkeeper had provided in comments on the 2023 Draft SEIS.[35] But Miami Waterkeeper asserts that this revised discussion should have led the Staff to update its analysis of the no-action alternative in section 3.2 of the Final SEIS.[36]

In section 3.2 of the Final SEIS, the Staff concluded that it had not identified any significant new information that would change its evaluation of the no-action alternative in the 2019 Supplemental Environmental Impact Statement (2019 SEIS).[37] Miami Waterkeeper claims that in reaching this conclusion, the Staff "declined to fulfill [its] NEPA obligations in the 2019 [SEIS] and [Final SEIS] by failing to objectively analyze, using [the] best available science, how environmental conditions would benefit from the no action alternative."[38] In addition, Miami Waterkeeper argues that the Staff relied on "an incorrect environmental baseline" in section

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[34] New and Amended Contentions at 7–8, 12.

[35] Id. at 13.

[36] Id. at 13–14.

[37] Final SEIS at 3-2 (citing NUREG-1437, Supplement 5, Second Renewal, "Generic Environmental Impact Statement for License Renewal of Nuclear Plants," Regarding Subsequent License Renewal for Turkey Point Nuclear Generating Unit Nos. 3 and 4, Final Report (Oct. 2019) ch. 4 (ML19290H346) (2019 SEIS)).

[38] New and Amended Contentions at 14.

2.8.3 of the Final SEIS, which "is the basis of its erroneous determination that impacts on groundwater quality will be [small or moderate]."[39] Miami Waterkeeper asserts that its contention is timely because it "concerns only the updated groundwater analysis in the [Final SEIS]."[40]

Although in Contention 1-A Miami Waterkeeper references the Final SEIS, it does so without the specificity required to support either a showing of good cause or to support an admissible contention. Miami Waterkeeper points generally to the Staff's seventeen-page discussion of groundwater-quality impacts and asserts that it incorporates new information that should have been considered in the Staff's evaluation of the no-action alternative.[41] Thus, Miami Waterkeeper appears to rely on the assumption that because the Staff's groundwater-quality impacts discussion has changed, the analysis of the no-action alternative should likewise change.[42]

Miami Waterkeeper similarly paints with a broad brush its criticisms of the Staff's analysis of the no-action alternative.[43] Miami Waterkeeper quotes a portion of the Staff's

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[39] Id. at 16. Miami Waterkeeper clarified at oral argument that it uses the terms "baseline" and "no-action alternative" interchangeably. See Tr. at 67 ("[Baseline] means what would happen if the license renewal was not granted and FPL ceased to use the CCS as a heat sink.").

[40] New and Amended Contentions at 14; see also id. at 6.

[41] New and Amended Contentions at 13 (citing Final SEIS at 2-24 to -40). Miami Waterkeeper also points to a shorter page range within the Final SEIS, but its assertions that its claims are timely are no more specific: "whereas the 2023 [Draft SEIS] omitted [an] adequate explanation of the predictions regarding the hypersaline plume, the [Final SEIS] now includes a shallow, inadequate evaluation of this issue." Id. at 6 (citing Final SEIS at 2-38 to -40).

[42] See id. at 13.

[43] See id. at 14–16; see also Reply at 9 ("The basis of the contention is broadly that conditions have changed since 2019 and therefore the revised analysis of alternatives must include an updated version of the no-action alternative before the comparison of alternatives in the [Final SEIS] can satisfy NEPA."); Reply at 10 ("At bottom, [Miami Waterkeeper] asserts that failing to update that old analysis before incorporating it into the new analyses provided in the [Final SEIS] rendered the new analyses inadequate.").

analysis of the no-action alternative from the 2019 SEIS (albeit related to terrestrial, rather than groundwater, resources) and asserts, in a conclusory manner, that the Staff's discussion of the no-action alternative in the 2019 SEIS and Final SEIS lacks objectivity and does not use the best available science.[44] Additionally, Miami Waterkeeper makes generalized claims that the Staff's analysis is "incorrect" and "erroneous."[45]

But without references to the specific information in the Final SEIS that Miami Waterkeeper claims is enough to warrant a revised analysis of the no-action alternative, and without references to the specific information in the Final SEIS that Miami Waterkeeper claims is inadequate, we are unable to conclude that the information upon which Contention 1-A is based is new and materially different from previously available information, as required under section 2.309(c)(1)(i) and (ii). In other words, without knowing the specific information that supports Miami Waterkeeper's contention, we cannot determine how it compares with previously available information.[46] For the same reason, we conclude that Miami Waterkeeper has failed

[44] New and Amended Contentions at 13–14 (noting that section 4.6.2 of the 2019 SEIS states that under the no-action alternative, "CCS conditions could change, 'because less heat would be discharged to the system . . . [, which] would potentially reduce evaporation resulting in less saline conditions that would be more favorable for birds and wildlife'" (quoting 2019 SEIS at 4-49)). But Miami Waterkeeper does not mention, let alone challenge, the Staff's discussion of the no-action alternative relative to groundwater resources, which appears in section 4.5.2.2 of the 2019 SEIS—arguably the more pertinent analysis to its contention. See 2019 SEIS at 4-37 to -38.

[45] New and Amended Contentions at 15–16. Miami Waterkeeper states that Contention 1-C includes the details of Miami Waterkeeper's claim that the Staff's groundwater-quality impacts conclusion is erroneous. Id. at 16. We address the admissibility of Contention 1-C below.

[46] Although the agency's timeliness requirements in 10 C.F.R. § 2.309(c) do not mention specificity, they require a participant, like Miami Waterkeeper, to "demonstrate" and "show" that the information upon which a new or amended contention is based is truly new. See 10 C.F.R. § 2.309(c)(1).

to meet the requirements for an admissible contention, which, among other things, must include specific references to the analyses that Miami Waterkeeper disputes.[47]

In its reply, Miami Waterkeeper argues that the Staff's and FPL's answers support its claims in Contention 1-A by highlighting new information that renders the no-action alternative analysis outdated.[48] According to Miami Waterkeeper, the Staff's and FPL's answers identify information available since 2019 that should have been considered in the Staff's analysis of the no-action alternative, including the existence of two new extraction wells, five years of updated well data, and new data on seepage and withdrawal rates.[49] FPL moved to strike this, and other portions of Miami Waterkeeper's reply relative to Contention 1-A, on the ground that Miami Waterkeeper improperly presented a new theory of its contention—that the no-action alternative analysis is based on outdated information.[50]

Although we conclude that Miami Waterkeeper's "outdated" characterization is fairly encompassed within Miami Waterkeeper's original claim that the Final SEIS does not include new and significant information,[51] FPL's argument that Miami Waterkeeper has exceeded the proper scope of a reply is well taken. A reply should be "narrowly focused on the legal or logical

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[47] See id. § 2.309(f)(1)(vi); Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), CLI-89-3, 29 NRC 234, 241 (1989) (expressing disfavor of the practice of incorporating wholesale documents by reference and stating the expectation that "parties [must] bear their burden and . . . clearly identify the matters on which they intend to rely with reference to a specific point" because "[t]he Commission cannot be faulted for not having searched for a needle that may be in a haystack").

[48] Reply at 7, 9.

[49] Id. at 9 (citing Staff Answer at 36; FPL Answer at 27, 29–30).

[50] Motion to Strike at 3–5.

[51] See New and Amended Contentions at 13–14; Miami Waterkeeper Response to Motion to Strike at 3–4.

arguments presented in the [answers]."[52] It appears that in calling out information that the Staff and FPL discuss in their answers, Miami Waterkeeper has improperly made a late attempt to provide the specific references that the motion to admit Contention 1-A lacks.[53] We therefore grant in part FPL's motion and do not consider footnote twenty-eight of Miami Waterkeeper's reply or the three textual sentences accompanied by footnotes thirty-five through thirty-seven and the citations in those footnotes.[54] We dismiss Contention 1-A on the ground that Miami Waterkeeper has failed to satisfy the good cause requirements in section 2.309(c)(1) and on the alternative ground that Miami Waterkeeper has failed to satisfy the contention admissibility requirements in section 2.309(f)(1).

2. Contention 1-B: "The [Final SEIS] employs the wrong standard to determine the impact of the CCS on potable water."

In Contention 1-B, Miami Waterkeeper asserts that the Staff "inappropriately used a standard for hypersalinity rather than potability"[55] in the Final SEIS groundwater-quality impacts analysis. According to Miami Waterkeeper, this hypersalinity standard is "at best, . . . twice as large as the most permissive potability metric and is many times the [Miami-Dade] County

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[52] Louisiana Energy Services, L.P. (National Enrichment Facility), CLI-04-25, 60 NRC 223, 225 (2004).

[53] See id. at 224 (explaining that reply briefs may not be used "to reinvigorate thinly supported contentions by presenting entirely new arguments"); Nuclear Management Co., LLC (Palisades Nuclear Plant), CLI-06-17, 63 NRC 727, 732 (2006) ("Allowing new claims in a reply not only would defeat the contention-filing deadline, but would unfairly deprive other participants of an opportunity to rebut the new claims.").

[54] See Reply at 7 n.28, 9 & nn. 35–37. Even if we were to allow these late arguments, we would find them insufficient to support the admission of Contention 1-A. Miami Waterkeeper has made no effort to explain how this purportedly new information differs from information previously available, or how this information, if incorporated, would change the existing analysis of the no-action alternative. See 10 C.F.R. § 2.309(c)(1)(ii), (f)(1)(vi); Seabrook, CLI-12-5, 75 NRC at 323.

[55] New and Amended Contentions at 16. In the Staff's environmental analysis, "hypersaline" is defined "as groundwater with a chloride concentration greater than 19,000 [milligrams per liter]." Final SEIS at 2-30; see also 2023 Draft SEIS at 2-24.

standard for potability."[56] Consequently, Miami Waterkeeper claims, the Staff has undermined its conclusion that the impacts to groundwater quality from operation of the CCS could range from small to moderate.[57]

Miami Waterkeeper notes that the definitions for the three significance levels the NRC uses to categorize environmental impacts—"small," "moderate," and "large"—are based on "(1) the noticeability of the environmental effect, and (2) whether the environmental effect will destabilize an important attribute of the resource."[58] In support of its conclusion that groundwater-quality impacts "could be moderate," the Staff determined that the use of the CCS during the subsequent license renewal period could be sufficient to noticeably alter groundwater quality, and Miami Waterkeeper agrees with that determination.[59] Miami Waterkeeper disagrees, however, with the Staff's determination that the impacts would not destabilize important groundwater-quality attributes.[60] Destabilizing impacts would require a significance determination of "large."[61]

Specifically, Miami Waterkeeper asserts that "potability is an 'important attribute' of the Biscayne Aquifer resource," and that therefore the Staff should have looked to "whether [the] proposed action will render potable portions of the Biscayne Aquifer non-potable."[62] Miami

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[56] New and Amended Contentions at 16.

[57] Id.

[58] Id. at 17 (citing 10 C.F.R. Part 51, Subpart A, Appendix B; Final SEIS at 1-4). Small environmental effects "are not detectable or are so minor that they will neither destabilize nor noticeably alter any important attribute of the resource." Final SEIS at 1-4. Moderate environmental effects "are sufficient to alter noticeably, but not to destabilize, important attributes of the resource." Id. Large environmental effects "are clearly noticeable and are sufficient to destabilize important attributes of the resource." Id.

[59] See Final SEIS at 2-39; New and Amended Contentions at 17 & n.60.

[60] See Final SEIS at 2-39 to -40; New and Amended Contentions at 17–19.

[61] See Final SEIS at 1-4.

[62] New and Amended Contentions at 17–18.

Waterkeeper argues that the Staff has "failed to adequately account for how the migration of non-potable saltwater—not just hypersaline water—from the CCS over the [subsequent license renewal] term will contribute to the potable portion of the Biscayne Aquifer being rendered non-potable."[63] In support of its contention, Miami Waterkeeper refers generally to a report from its expert Dr. William Nuttle, which Miami Waterkeeper filed as an attachment to its proposed contentions.[64]

Miami Waterkeeper asserts that its contention is based on the Final SEIS and that therefore it has satisfied the good cause requirement for Contention 1-B.[65] As it does for Contention 1-A, Miami Waterkeeper asserts that Contention 1-B is based on new and materially different information in the Final SEIS regarding the Staff's explanation for its conclusion regarding impacts to groundwater quality from the hypersaline plume.[66] As discussed above, the Staff added this explanation to the Final SEIS to address the contention of omission we admitted in LBP-24-3, and thereafter, we granted the parties' unopposed motion to dismiss that contention as moot.[67] Miami Waterkeeper maintains that if the new information is sufficient to

[63] Id. at 19.

[64] See id., Attachment A, Expert Report of William Nuttle Ph.D., [P.E.] (Ontario) (May 8, 2024) (Nuttle Report). Apart from its statement that Miami-Dade County relies on the Biscayne Aquifer for its supply of potable water, see New and Amended Contentions at 18 n.65, Miami Waterkeeper refers to the Nuttle Report without specific page references. See id. at 17 n.60, 21 n.73. It provides additional page references to the Nuttle Report in its reply. See Reply at 11–12, 15.

[65] See New and Amended Contentions at 6–7.

[66] See id. at 6; Reply at 5.

[67] See Order Granting Motion to Dismiss at 2.

moot the prior contention, "it must be materially different to the prior analysis," as licensing boards have found in other proceedings.[68]

As a general matter, Miami Waterkeeper is correct that the filing of an amended contention of adequacy often follows the dismissal of a contention of omission, once cured, and Miami Waterkeeper is correct that such amended contentions have been found to satisfy the good cause requirement.[69] But the fact that an analysis has been revised does not open the door to any challenge, however tangential, that could have been raised previously but was not.[70] Rather, we look to the information upon which a new or amended contention is based to determine whether that contention has been filed with good cause after the deadline for hearing requests has passed.[71]

Here, in contrast to Contention 1-A, Miami Waterkeeper is specific about the information it challenges: Contention 1-B is based on the Staff's use of a hypersaline standard rather than a potability standard in its groundwater-quality impacts analysis.[72] But the Staff's focus on the hypersaline plume has remained a key aspect of the Staff's groundwater-quality impacts analysis and that focus has not changed in the Final SEIS.[73] Because Miami Waterkeeper

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[68] Reply at 5–6 (citing Florida Power & Light Co. (Turkey Point Nuclear Generating Units 3 and 4), LBP-19-8, 90 NRC 139, 146 (2019); Tennessee Valley Authority (Clinch River Nuclear Site), LBP-18-4, 88 NRC 55, 58 (2018)).

[69] See, e.g., Duke Energy Corp. (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-28, 56 NRC 373, 382–83 (2002).

[70] See Entergy Nuclear Operations, Inc. (Indian Point, Units 2 and 3), CLI-16-10, 83 NRC 494, 520 (2016) (concluding that the mere addition of new information regarding a particular issue "does not serve to restart the clock for arguments that could have—and therefore under [the agency's] contention admissibility requirements should have—been raised at the outset").

[71] See 10 C.F.R. § 2.309(c)(1)(i)–(ii); Indian Point, CLI-16-10, 83 NRC at 520–21; DTE Electric Co. (Fermi Nuclear Power Plant, Unit 3), CLI-15-1, 81 NRC 1, 7–8 (2015).

[72] See New and Amended Contentions at 16–21.

[73] Compare 2023 Draft SEIS at 2-22 to -31, with Final SEIS at 2-24 to -40.

could have raised this contention as a challenge to the 2023 Draft SEIS, we conclude that Miami Waterkeeper has not demonstrated that it filed its contention with good cause, as required by section 2.309(c)(1)(i) and (ii).[74] Miami Waterkeeper's challenge to the use of the hypersaline standard is neither new nor based on information that is materially different from information available previously.[75]

We also conclude, as an independent basis to dismiss Contention 1-B, that Miami Waterkeeper has not provided sufficient information to demonstrate a genuine dispute with the Staff's groundwater-quality impacts analysis—a requirement for the admission of its contention.[76] In the 2023 Draft SEIS and the Final SEIS, the Staff acknowledges that the CCS has contributed to the degradation of groundwater quality from the formation of a hypersaline plume beyond the CCS and the Turkey Point site boundary and that this impacted water has migrated in the direction of the Biscayne Aquifer, which the Staff also acknowledges is a source of potable water.[77] In addition, the Staff discusses FPL's efforts to address the movement of degraded water as required under regulatory and enforcement initiatives from state and local authorities.[78] In making its determination that the impacts on groundwater quality from operation of the CCS would be small to moderate, the Staff relies on FPL's continued compliance with state and local requirements and peer-reviewed data that FPL's freshening

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[74] See Fermi, CLI-15-1, 81 NRC at 7 ("Petitioners who choose to wait to raise contentions that could have been raised earlier do so at their peril. They risk the possibility that there will not be a material difference between [the relevant environmental review documents], thus rendering any newly proposed contention on previously available information impermissibly late.").

[75] See 10 C.F.R. § 2.309(c)(1)(i)–(ii).

[76] See id. § 2.309(f)(1)(vi).

[77] See 2023 Draft SEIS at 2-23; Final SEIS at 2-24 to -25.

[78] See, e.g., Draft SEIS at 2-23 to -24; Final SEIS at 2-25, 2-28.

activities, particularly since installation of the recovery well system in 2018, have led to a retraction of the hypersaline plume.[79]

Miami Waterkeeper does not engage with this analysis. Instead, Miami Waterkeeper appears to assume that some quantity of non-potable saltwater is attributable to FPL's operation of the CCS that is not accounted for in the Staff's analysis, without an explanation as to how that might occur and without an explanation as to how the Staff's analysis does not cover that possibility.[80] At most, Miami Waterkeeper has shown that different information could be considered—a different salinity standard—but it has not shown why that information should have been considered. And although Miami Waterkeeper has provided an expert opinion, the Nuttle Report, Miami Waterkeeper does not explain how the Staff's use of the hypersalinity standard, which is also the standard underpinning FPL's compliance with state and local requirements, is unreasonable, or, in other words, materially insufficient to satisfy NEPA.[81]

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[79] See Final SEIS at 2-28 to -40; see also Draft SEIS at 2-24 to -31. In particular, the Staff notes that a 2015 consent agreement with Miami-Dade County, a 2016 consent decree with the Florida Department of Environmental Protection, and FPL's National Pollution Discharge Elimination System permit require FPL to retract the hypersaline plume and to maintain an average annual salinity in the CCS no greater than thirty-four practical salinity units. See Final SEIS at 2-28, 2-38; see also Draft SEIS at 2-24.

[80] See New and Amended Contentions at 16–21. Although it is not clear from the face of Miami Waterkeeper's motion whether it also relies on Contention 1-C to support its theory regarding the movement of saltwater, we find it inadmissible for the reasons provided in our ruling on that contention. See Strata Energy, Inc. (Ross In Situ Uranium Recovery Project), CLI-16-13, 83 NRC 566, 578 (2016) (explaining that the intervenors "had the burden to demonstrate the admissibility of their contention, including establishing a factual predicate for [the contention's] claims").

[81] See Seabrook, CLI-12-5, 75 NRC at 323. We also question whether Miami Waterkeeper's general references to the Nuttle Report in its motion are sufficient to support Contention 1-B, which Miami Waterkeeper appears to have attempted improperly to correct in its reply. See supra note 64. Licensing boards should not be expected to search through lengthy references to discern a petitioner's or intervenor's intent; the burden of demonstrating admissibility is on the proponent of the contention, not the licensing board. See, e.g., USEC Inc. (American Centrifuge Plant), CLI-06-10, 63 NRC 451, 457 (2006) ("A contention must make clear why cited references provide a basis for a contention. . . . [I]t is not up to the boards to search through

Accordingly, we dismiss Contention 1-B for failing to meet the timeliness requirements in section 2.309(c)(1) and on the alternative ground that it fails to meet the contention admissibility requirements in section 2.309(f)(1).

3. Contention 1-C: "The [Final SEIS's] assessment of the impact of the proposed action to groundwater quality is inadequate because it underestimates the impacts on drinking water resources."

In Contention 1-C, Miami Waterkeeper asserts that "[t]he continued operation of the CCS . . . during the [subsequent license renewal] term will produce significant and destabilizing effects on the Biscayne Aquifer."[82] According to Miami Waterkeeper, FPL's measures to remediate the hypersaline plume resulting from use of the CCS as a heat sink are "actually increasing the rate at . . . which the interface between saltwater and freshwater" migrates toward "potable water wells that serve about 4 million people."[83] "In effect," Miami Waterkeeper claims, "to solve one problem—the hypersaline plume—FPL is exacerbating another."[84] Miami Waterkeeper argues that although the Staff acknowledges the inland movement of the saltwater interface, the "Staff focuses on the hypersaline plume and largely ignores the much greater volume of saline water that is escaping the CCS in vast quantities."[85]

Referencing the Nuttle Report, Miami Waterkeeper describes its theory by which FPL's remediation efforts purportedly "increase[ ] the inland movement of the saltwater interface"[86] and

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pleadings or other materials to uncover arguments and support never advanced by the petitioners themselves; boards may not simply 'infer' unarticulated bases of contentions."); see also Fansteel, Inc. (Muskogee, Oklahoma Site), CLI-03-13, 58 NRC 195, 204 (2003); Seabrook, CLI-89-3, 29 NRC at 240–41.

[82] New and Amended Contentions at 21.

[83] Id. at 22, 25.

[84] Id. at 25.

[85] Id. at 24.

[86] Id. at 22.

place at risk municipal wells approximately seven miles from the Turkey Point site.[87] According to Miami Waterkeeper, (1) these wells use the Biscayne Aquifer and are vulnerable to impacts from saltwater intrusion;[88] (2) "[r]elatively small differences in the height of the water table (the hydraulic head) . . . drive large groundwater fluxes in the Biscayne Aquifer";[89] (3) the CCS actively exchanges with the Biscayne Aquifer "by design," and exerts a significant influence on regional hydrology and water quality;[90] and (4) use of the CCS as a heat sink, along with the addition of water to desalinate the canals, increases the water levels in the CCS.[91] Ultimately, Miami Waterkeeper claims, the increased water levels in the CCS increase hydraulic head and lead to "decreased inflows from the Biscayne Aquifer, increased outflows to the Biscayne Aquifer, and an overall increase in net discharge to groundwater."[92]

In addition, Miami Waterkeeper claims that in making its "small to moderate" impacts determination the Staff improperly relies on the fact that FPL's remediation efforts are required and "subject to significant ongoing state and local oversight."[93] Thus, Miami Waterkeeper maintains, the Staff has failed to do a "thorough, integrated analysis" of remediating the hypersaline plume and the movement of saltwater toward potable wells.[94] "Were [the Staff] to remedy the[se] deficiencies," Miami Waterkeeper argues, the Staff "might conclude that the

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[87] See id. at 22, 27–34.

[88] Id. at 27.

[89] Id. at 28.

[90] Id. at 28–32.

[91] Id. at 32–34.

[92] Id. at 32–33 (emphasis omitted); see also id. at 34.

[93] Id. at 23 (quoting Final SEIS at A-45).

[94] Id. at 25.

impacts to groundwater" are large.[95] Miami Waterkeeper asserts that its contention is timely because it challenges the Staff's updated groundwater-quality impacts analysis.[96]

As we explained in our ruling on Contention 1-B, in determining whether Miami Waterkeeper has met the good cause standard for the timeliness of its contention, we must look to the information upon which the contention is based—that is, its claims and the underlying support for those claims.[97] And in Contention 1-C, Miami Waterkeeper takes issue with the Staff's discussion of the hypersaline plume and FPL's efforts to remediate it under the supervision of state and local authorities.[98] Additionally, Miami Waterkeeper asserts that FPL's remediation efforts are exacerbating the westward movement of saltwater toward the drinking water supply.[99]

But these claims extend beyond a challenge to the information the Staff added to address the contention we admitted in LBP-24-3, which asserted that the Staff failed to provide an explanation linking its analysis to its conclusion that groundwater-quality impacts "could be moderate."[100] Rather, Miami Waterkeeper seeks to challenge the technical support underpinning the Staff's analysis, which has not materially changed from the 2023 Draft SEIS to the Final SEIS.[101] Miami Waterkeeper was unsuccessful in its challenge to the technical basis

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[95] Id. at 26.

[96] See id. at 6–7.

[97] See 10 C.F.R. § 2.309(c)(1).

[98] See New and Amended Contentions at 21–34.

[99] See, e.g., id. at 25, 33–34.

[100] LBP-24-3, 99 NRC at 60.

[101] The Staff continues to base its analysis on the movement of the hypersaline plume, FPL's compliance with state and local requirements, and uncertainty in plume movement during the subsequent license renewal term. Compare 2023 Draft SEIS at 2-22 to -31, with Final SEIS at 2-24 to -40; see infra notes 108–12. As FPL describes it, the contention we admitted in

for the Staff's groundwater-quality impacts analysis in its hearing request,[102] and in the absence of a material difference, Miami Waterkeeper may not challenge it again now.[103] Because Miami Waterkeeper has not shown that its contention is based on new and materially different information, we conclude that it has not satisfied the good cause standard for Contention 1-C.[104]

Moreover, the bulk of the information on which Miami Waterkeeper relies to support its contention predates the 2023 Draft SEIS, in some cases by decades.[105] Not only does this further support our conclusion that Miami Waterkeeper has not based its contention on new and materially different information,[106] but also it supports a conclusion that Miami Waterkeeper has not proposed an admissible contention, which provides an independent basis to dismiss it.[107]

In both the 2023 Draft SEIS and the Final SEIS, the Staff discusses the saltwater interface and acknowledges that it is influenced by the CCS and the hypersaline plume.[108] The Staff also cites peer-reviewed data obtained from the implementation of FPL's recovery well

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LBP-24-3 pertained to the omission of the "connective tissue" between the technical analysis and "the bottom[-]line conclusion that the [S]taff offered for that section." Tr. at 106. And in the Final SEIS, the Staff "provided that connective tissue," but the technical basis did not change. Id.

[102] See LBP-24-3, 99 NRC at 57–61; Request for Hearing and Petition to Intervene Submitted by Miami Waterkeeper (Nov. 27, 2023) at 12–34 (Hearing Request).

[103] See 10 C.F.R. § 2.309(c)(1)(i)–(ii); Pilgrim, CLI-12-10, 75 NRC at 493 (concluding that because the claims in a proposed contention did not stem from changes made in a license renewal applicant's amendment to an aging management program, the amended program did not provide good cause for the contention).

[104] See 10 C.F.R. § 2.309(c)(1)(i)–(ii).

[105] See New and Amended Contentions at 25–26, 32–34 (referencing a 2020 fact sheet from the U.S. Geological Survey, a 1978 study regarding the CCS's impact on hydrologic conditions, a regression analysis by Dr. Nuttle based on water levels in the CCS from 2010, and tritium measurements from 2014). The Nuttle Report also relies, in large part, on information that predates the 2023 Draft SEIS. See Nuttle Report at 26–28.

[106] See 10 C.F.R. § 2.309(c)(1)(i)–(ii).

[107] See id. § 2.309(c)(4), (f)(1).

[108] See 2023 Draft SEIS at 2-22 to -23; Final SEIS at 2-24.

system in 2018 through 2023, as FPL continues to engage in its efforts to remediate the hypersaline plume.[109] This data forms the basis for the Staff's determination that there has been some success in FPL's retraction of the hypersaline plume and the removal of its influence on the saltwater interface.[110] But the Staff also acknowledges that there is uncertainty in FPL's ability to further retract the plume during the subsequent license renewal term.[111] The Staff concludes that based on the "results obtained to date" and FPL's compliance with state and local requirements, operation of Turkey Point Units 3 and 4 during the subsequent license renewal term "would not worsen the hypersaline . . . plume outside the plant boundary, destabilize the groundwater resource, or adversely affect the beneficial uses of groundwater offsite by existing users."[112]

Miami Waterkeeper, in contrast, relies principally on data that predates FPL's remediation efforts to support its claim that remediating the plume will exacerbate the westward movement of saltwater.[113] But since the implementation of the recovery well system in 2018, circumstances have changed regarding the remediation required for the continued operation of the CCS (the claimed source of environmental impacts).[114] We therefore conclude, without going to the merits of its claims, that Miami Waterkeeper has not engaged with the Staff's existing groundwater-quality impacts analysis. Miami Waterkeeper has provided different data,

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[109] See 2023 Draft SEIS at 2-24 to -31; Final SEIS at 2-28 to -40.

[110] See 2023 Draft SEIS at 2-24 to -31; Final SEIS at 2-28 to -40.

[111] See 2023 Draft SEIS at 2-31; Final SEIS at 2-38.

[112] Final SEIS at 2-38; see also 2023 Draft SEIS at 2-24, 2-31.

[113] See New and Amended Contentions at 25–26, 32–34. See generally Nuttle Report.

[114] See 2023 Draft SEIS at 2-24 to -31; Final SEIS at 2-28 to -40.

but it has not demonstrated that the Staff's discussion and analysis of data obtained contemporaneously with FPL's remediation efforts is unreasonable.[115]

Moreover, like the prior Turkey Point Board, we accord "substantial weight" to the determination that FPL will comply with its legal obligations.[116] Thus, to the extent Miami Waterkeeper would fault the Staff for relying on FPL's compliance with state and local requirements, it has not raised a genuine dispute.[117] We therefore conclude, as we did when

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[115] In essence, Miami Waterkeeper and the Staff are focused on two different time periods—one that predates FPL's remediation efforts, and one that considers them. This presents a disconnect, and Miami Waterkeeper does not explain why its preferred approach calls into question the reasonableness of the Staff's approach. See Seabrook, CLI-12-5, 75 NRC at 334–36 (rejecting a contention that merely presented an alternative approach and did not demonstrate that the Staff's analysis "was insufficient to satisfy NEPA"). In perhaps its closest attempt to address the present status of FPL's remediation efforts, Miami Waterkeeper references a figure in the Nuttle Report that provides tritium measurements in wells near Turkey Point from the years 2016 through 2023. New and Amended Contentions at 34 (citing Nuttle Report at 17). (The figure, which is referenced on page 17 of the Nuttle Report, appears on page 38 of the report.) Miami Waterkeeper claims that the presence of tritium is a "reliable indicator of water originating from the CCS." New and Amended Contentions at 33; see also Reply at 8 n.34; Tr. at 72. Miami Waterkeeper also asserts that it received this information after the Staff issued the Final SEIS. See Reply at 8 n.34 ("Tritium data shown in Figure 7 of [Dr. Nuttle's report] is not available in any public database and was received by Miami Waterkeeper on April 29, 2024, by request."). But even if we were to consider this information timely presented, Miami Waterkeeper has not explained how the presence of tritium reflects new saltwater incursion from the CCS to support its overarching claim that saltwater is advancing toward the aquifer rather than retracting. Without providing the necessary connection between the presence of tritium and the timing of its migration from the CCS, Miami Waterkeeper's claim amounts to a bare assertion and is insufficient to support an admissible contention. See Entergy Nuclear Generation Co. and Entergy Nuclear Operations, Inc. (Pilgrim Nuclear Power Station), CLI-12-3, 75 NRC 132, 149 (2012); 10 C.F.R. § 2.309(f)(1)(v)–(vi). Further, the tritium measurements that Miami Waterkeeper references do not present a genuine dispute with existing information in the Final SEIS, which acknowledges the location of CCS water in the vicinity of potable water wells, and, in the Staff's analysis of the Miami cave crayfish, discusses tritium measurements from 2010 to 2023. See Final SEIS at 2-24, 2-38, 2-65 to -66; infra note 149; see also Final SEIS at 2-65 (explaining that tritium has a half-life of 12.3 years).

[116] Turkey Point, LBP-19-8, 90 NRC at 164–65; Florida Power & Light Co. (Turkey Point Nuclear Generating Units 3 and 4), LBP-19-3, 89 NRC 245, 282–83 (2019).

[117] See Florida Power & Light Co. (Turkey Point Units 6 and 7), LBP-17-5, 86 NRC 1, 29–30 (2017) (explaining that "[t]he 'well-recognized presumption of administrative regularity' that applies to the NRC Staff in the execution of its official duties . . . likewise applies to [s]tate

presented with Miami Waterkeeper's challenge to the Staff's technical basis for its groundwater-quality impacts discussion the first time, that Miami Waterkeeper has not provided sufficient information to demonstrate a genuine, material dispute with the Final SEIS.[118]

4. Contention 2: "The [Final SEIS's] analysis of the potential impacts of Turkey Point's continued operation during the renewal period on [the] Miami cave crayfish is inadequate and its determination that continued operation is unlikely to adversely affect or jeopardize the Miami cave crayfish is unsupported."

In Contention 2, Miami Waterkeeper argues that contrary to "NEPA, the [Endangered Species Act], and both laws' implementing regulations," the Staff gives "inadequate consideration to how the operation of the CCS and its regional hydrologic impacts in the Biscayne Aquifer will affect the crayfish during the twenty-year subsequent license renewal period."[119] In particular, Miami Waterkeeper asserts that the Staff "fails to adequately evaluate the effects of salinity on the crayfish and its habitat, by considering only the impact of hypersaline water" when "the [Miami cave] crayfish is susceptible to the effects of . . . salinity at any level above freshwater conditions."[120] Miami Waterkeeper also claims that although the Staff acknowledges uncertainty in FPL's ability to retract the hypersaline plume in its discussion of groundwater-quality impacts, the Staff bases its analysis of impacts on the crayfish on the assumption that the hypersaline plume will retract as planned.[121] Additionally, Miami Waterkeeper asserts that the Staff fails "to . . . consider [how] the cumulative effects of sea level

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regulatory officials" (citing Arkansas Power & Light Co. (Arkansas Nuclear One Unit 2), ALAB-94, 6 AEC 25, 28 (1973); Southern California Edison Co. (San Onofre Nuclear Generating Station, Units 2 and 3), ALAB-308, 3 NRC 20, 30 (1976); accord United States v. Chem. Found., Inc., 272 U.S. 1, 14–15 (1926) (discussing the "presumption of regularity" that applies to the actions of public officers).

[118] See LBP-24-3, 99 NRC at 58–59, 61; 10 C.F.R. § 2.309(f)(1)(vi).

[119] New and Amended Contentions at 38–39.

[120] Id. at 41.

[121] See id. at 46–48.

rise together with the salinizing effects of Turkey Point's CCS operations" impact the species and its habitat.[122]

Thus, Miami Waterkeeper maintains, the "analyses underpinning [the Staff's] conclusion that increased salinity and the hypersaline plume are not likely to adversely affect the Miami cave crayfish are deficient," and the "conclusion that the NRC need not confer with [the Fish and Wildlife Service] is erroneous."[123] Miami Waterkeeper also argues that it has met the "good cause" standard for admitting the contention because it is timely and based on new and materially different information in the Final SEIS.[124]

We agree that Contention 2 is timely. As we noted in LBP-24-3, the Fish and Wildlife Service proposed to list the Miami cave crayfish as a threatened species on September 20, 2023, after the Staff had issued the 2023 Draft SEIS.[125] Because the Commission disfavors "placeholder" contentions, we dismissed as premature Miami Waterkeeper's challenge to the Staff's response to the proposed listing.[126] We observed that "Miami Waterkeeper will have an opportunity to advance any arguments regarding the agency's Endangered Species Act compliance relative to the Miami cave crayfish in a new or amended contention when the Staff issues the Final SEIS."[127] That time has arrived. The Final SEIS contains the Staff's discussion of impacts to the Miami cave crayfish as a proposed listed species. The information is both new and materially different from information previously available.[128] We therefore conclude that

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[122] Id. at 44.

[123] Id. at 46, 48.

[124] Id. at 36–37. The Staff and FPL do not challenge Contention 2 on timeliness grounds. See Staff Answer at 1, 49; FPL Answer at 2, 34.

[125] See LBP-24-3, 99 NRC at 66.

[126] Id.; see Union Electric Co. (Callaway Plant, Unit 1), CLI-15-11, 81 NRC 546, 548–50 (2015).

[127] LBP-24-3, 99 NRC at 67.

[128] See 10 C.F.R. § 2.309(c)(1)(i)–(ii).

Miami Waterkeeper has demonstrated good cause for filing Contention 2. With regard to the admissibility of Contention 2, however, we conclude that Miami Waterkeeper has not demonstrated that the contention raises a genuine dispute with the Staff's analysis, either as a NEPA challenge or as an Endangered Species Act challenge.[129]

As a NEPA challenge, Miami Waterkeeper's contention suffers from the same deficiencies as Contention 1-C, on which Miami Waterkeeper relies (along with the Nuttle Report) for support.[130] As we explained in our ruling on Contention 1-C, Miami Waterkeeper principally relies on data predating FPL's efforts to remediate the hypersaline plume.[131] The Staff's analysis, in contrast, considers FPL's remediation efforts (particularly since FPL installed its recovery well system in 2018) to support its conclusion that the continued operation of Turkey Point Units 3 and 4 is not likely to adversely affect the Miami cave crayfish.[132] Those efforts have generated peer-reviewed data that the Staff references to support its conclusion that the plume is moving east, in the direction of the Turkey Point site boundary and no longer advancing west, in the direction of the Biscayne Aquifer.[133] And particularly considering the results obtained to date and FPL's continued compliance with state and local requirements, the Staff concludes that the conditions are not likely to worsen.[134] Miami Waterkeeper has not shown how the information it proposes for consideration calls into question the reasonableness

[129] See id. § 2.309(f)(1)(vi).

[130] See New and Amended Contentions at 43, 51; Reply at 34.

[131] See, e.g., supra note 113 and accompanying text.

[132] Final SEIS at 2-67.

[133] Id.

[134] Id.

of the Staff's approach.[135] Similarly, to the extent Miami Waterkeeper challenges the Staff's focus on the hypersaline plume, as opposed to water at a lower salinity that purportedly would still be unsuitable for crayfish habitability, Miami Waterkeeper does not explain how that lower salinity is unaccounted for in the Staff's analysis.[136]

Miami Waterkeeper's claim that the Staff failed to consider the cumulative impacts of sea-level rise on the Miami cave crayfish also does not raise a genuine dispute with the Staff's analysis because that analysis is presented in the Final SEIS.[137] Although the analysis is contained in a separate section of the Final SEIS, the Staff asserts that "read together," these analyses "cover everything" concerning impacts to the Miami cave crayfish.[138] Specifically, the Staff asserts that "as demonstrated throughout [its] environmental review, the effects of the proposed action [(subsequent renewal of the Turkey Point Units 3 and 4 operating licenses)] and cumulative effects at most would not increase the environmental baseline salinity conditions."[139] Consequently, to the extent it claims this analysis is missing, Miami Waterkeeper

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[135] See Seabrook, CLI-12-5, 75 NRC at 323–24. Miami Waterkeeper asserts that, in the Staff's discussion of impacts to the crayfish, the Staff ignores the uncertainty that the Staff accounts for in its groundwater-quality impacts analysis. See New and Amended Contentions at 46. But the Staff expressly references its groundwater-quality impacts discussion. Final SEIS at 2-67 (citing § 2.8.3.2). There is nothing to suggest that the Staff ignored any part of this discussion, and we would elevate form over substance (arguably engaging in the flyspecking frowned upon by the Commission) were we to require the Staff to repeat its groundwater-quality impacts analysis in full when making its impact determination for the crayfish. See Grand Gulf, CLI-05-4, 61 NRC at 13. Additionally, to the extent Miami Waterkeeper challenges the Staff's reliance on state and local enforcement and oversight of FPL's hypersaline plume remediation, it fails to raise a genuine dispute given the presumption of regularity we accord the actions of government entities. See supra note 117.

[136] See New and Amended Contentions at 41–42; supra notes 108, 115, 117 and accompanying text.

[137] See Final SEIS § E.10 (citing 2019 SEIS §§ 4.15.3.1, 4.16).

[138] Tr. at 92; see also Staff Answer at 54 ("Taken together, the environmental baseline of both the current condition of the Miami cave crayfish and future sea level rise is discussed in the Staff's environmental review.").

[139] Staff Answer at 57 (citing discussions in the 2019 SEIS, 2023 Draft SEIS, and Final SEIS).

is incorrect. And to the extent it claims that this analysis is inadequate, Miami Waterkeeper does not provide sufficient information to challenge the reasonableness of the Staff's analysis or its conclusion that salinity will not worsen as a result of the continued operation of Turkey Point Units 3 and 4.[140]

With regard to its Endangered Species Act challenge, Miami Waterkeeper has not shown that the statute and its implementing regulations require anything more of the Staff for a proposed listed species. As relevant here, section 7 of the Endangered Species Act requires agencies to "confer . . . on any agency action which is likely to jeopardize the continued existence of any species proposed to be listed . . . or result in the destruction or adverse modification of critical habitat proposed to be designated for such species."[141] The applicable regulations track this statutory language: agencies must "confer with the [Fish and Wildlife] Service on any action which is likely to jeopardize the continued existence of any proposed species or result in the destruction or adverse modification of proposed critical habitat."[142] Additionally, the regulations distinguish "environmental baseline" conditions from those that would be attributable to the proposed action.[143] Apart from these baseline conditions, if the

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[140] See supra notes 115, 117 and accompanying text.

[141] Endangered Species Act § 7(a)(4), 16 U.S.C. § 1536(a)(4).

[142] 50 C.F.R. § 402.10(a). The regulations further define what it means to "jeopardize the continued existence" of a species or to destroy or adversely modify its critical habitat. An action that "reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of [a] species," would be seen to "jeopardize the continued existence of" that species. Id. § 402.02. And "a direct or indirect alteration that appreciably diminishes the value of critical habitat as a whole for the conservation of a listed species" qualifies as destruction or adverse modification. Id.

[143] Id. § 402.02 ("Environmental baseline refers to the condition of the listed species or its designated critical habitat in the action area, without the consequences to the listed species or designated critical habitat caused by the proposed action. The environmental baseline includes the past and present impacts of all Federal, State, or private actions and other human activities

agency determines that the proposed action is not likely to jeopardize the continued existence of a proposed species or result in the destruction or adverse modification of proposed critical habitat, it need not confer with the Fish and Wildlife Service.[144]

The Staff discusses the process it undertook to fulfill its obligations under the Endangered Species Act with respect to the Miami cave crayfish in section 2.11 of the Final SEIS.[145] In that section, the Staff incorporates information from the Fish and Wildlife Service's species status assessment that accompanied the proposed listing.[146] The Staff notes that the Fish and Wildlife Service "cites saltwater intrusion associated with sea level rise as the primary threat to the Miami cave crayfish."[147] With regard to the proposed action, the continued operation of Turkey Point Units 3 and 4 during the subsequent license renewal term, the Staff identifies exposure to radionuclides, namely tritium, and habitat loss associated with saltwater intrusion as potential impacts on the Miami cave crayfish.[148] In Contention 2, Miami

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in the action area, the anticipated impacts of all proposed Federal projects in the action area that have already undergone formal or early section 7 consultation, and the impact of State or private actions which are contemporaneous with the consultation in process. The impacts to listed species or designated critical habitat from Federal agency activities or existing Federal agency facilities that are not within the agency's discretion to modify are part of the environmental baseline.").

[144] See Endangered Species Act § 7(a)(4), 16 U.S.C. § 1536(a)(4); 50 C.F.R. § 402.10(a); see also Ctr. for Biological Diversity v. U.S. Fish and Wildlife Serv., 807 F.3d 1031, 1052 (9th Cir. 2015) (reasoning that it is the "federal action itself" that "must cause some incremental deterioration in the species' pre-action condition").

[145] See Final SEIS at 2-63 to -67. An agency may fulfill its obligations under the Endangered Species Act as part of its compliance with other statutes, including NEPA, but satisfying the requirements of those other statutes "does not in itself relieve a Federal agency of its obligations to comply with the procedures set forth in this part or the substantive requirements of section 7." 50 C.F.R. § 402.06.

[146] See Final SEIS at 2-63 (citing Proposed Listing, 88 Fed. Reg. at 64,856; Miami Cave Crayfish (Procambarus milleri), Species Status Assessment, version 1.2 (Sept. 2023) (Species Status Assessment)).

[147] Id.

[148] Id. at 2-65.

Waterkeeper does not appear to dispute the Staff's conclusion with regard to potential impacts from radionuclides; rather, its concerns stem from the Staff's discussion of impacts from saltwater intrusion.[149]

For its discussion of impacts from saltwater intrusion, the Staff draws upon analyses from other sections of the Final SEIS, as well as the 2019 SEIS.[150] And as discussed above, based on those analyses, the Staff determined that the hypersaline plume is retracting under FPL's remediation efforts, rather than expanding.[151] The Staff also observes that "the hypersaline plume does not currently overlap with the endemic range of the Miami cave crayfish . . . and the required continued CCS freshening would ensure that water originating from the CCS does not influence the Biscayne Aquifer's saltwater/freshwater interface within the species' range."[152] In view of FPL's remediation of the hypersaline plume, continued oversight by state and local authorities, and the current endemic range of the crayfish, the Staff concludes that continued operation of Turkey Point during the subsequent license renewal period is not likely to worsen baseline environmental conditions and not likely to adversely affect the Miami cave crayfish.[153] Consequently, the Staff concludes, it need not confer with the Fish and Wildlife Service on the proposed listed species.[154]

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[149] See New and Amended Contentions at 38–49; id. at 43 & n.167 (asserting that the presence of tritium is a proxy for saltwater intrusion). Based on twelve years (2010 to 2023) of tritium data that FPL provided to the Fish and Wildlife Service in December 2023, the Staff concludes that it would not expect the crayfish to "experience measurable effects" from exposure to tritium. Final SEIS at 2-66.

[150] Final SEIS at 2-66 to -67.

[151] See id. at 2-67.

[152] Id.

[153] See id.

[154] Id.

As discussed above, Miami Waterkeeper theorizes that FPL's remediation efforts are exacerbating the movement of saltwater toward the west, rather than retracting it toward the east.[155] But the support that Miami Waterkeeper provides for this theory predates the information the Staff uses in its analysis, and thus Miami Waterkeeper does not directly engage with the Staff's reasoning.[156] And regarding Miami Waterkeeper's claim that the Staff, in focusing on the hypersaline plume, has ignored some quantity of saltwater resulting from operation of the CCS, that claim is not accompanied by sufficient support to raise a genuine dispute.[157] Miami Waterkeeper has not explained how this saltwater is attributable to Turkey Point and is unaccounted for in the Staff's analysis.[158]

Further, the Endangered Species Act requires agencies to assess adverse impacts from the proposed action, as distinguished from the environmental baseline.[159] Thus, to the extent Miami Waterkeeper challenges current baseline conditions in the area surrounding the Turkey Point site, rather than adverse impacts likely to accrue during the subsequent license renewal period,[160] it has not raised an issue material to the findings the NRC must make to meet its obligations under the Endangered Species Act.[161] In sum, we find that Contention 2 was timely filed, but it does not meet the standards for an admissible contention in section 2.309(f)(1), and we therefore dismiss it.

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[155] See New and Amended Contentions at 43, 45.

[156] See New and Amended Contentions at 43 (relying on Contention 1-C for support); supra note 115.

[157] See New and Amended Contentions at 41–42; 10 C.F.R. § 2.309(f)(1)(vi).

[158] See supra notes 115, 117 and accompanying text.

[159] See 50 C.F.R. § 402.02.

[160] See, e.g., New and Amended Contentions at 42 (asserting that the Final SEIS "fails to consider the concept of a gradient of salinity throughout the aquifer"); id. at 44–46 (referring to "existing saltwater intrusion conditions" and future sea-level rise).

[161] See 10 C.F.R. § 2.309(f)(1)(iv).

5. Contention 3-A: "The [Final SEIS] fails to adequately analyze climate change-related environmental impacts that are reasonably foreseeable to occur during the subsequent license renewal period."

In Contention 3-A, Miami Waterkeeper asserts that a report prepared by the U.S. Government Accountability Office (GAO) raises new information that calls into question the Staff's cumulative-impacts discussion in the Final SEIS, specifically the Staff's consideration of climate-change impacts on environmental resources.[162] According to Miami Waterkeeper, the GAO Report demonstrates the reasonably foreseeable risk of (1) flooding caused by rising sea levels and intensifying hurricanes;[163] (2) damage from high winds caused by hurricanes;[164] and (3) saltwater intrusion caused by rising sea levels, rising temperatures, and drought.[165] Although Miami Waterkeeper acknowledges that the 2019 SEIS and Final SEIS contain an analysis of the cumulative impacts of climate change, it argues that the Staff's analysis is "cursory" and "inadequate."[166] Miami Waterkeeper contends that if the Staff were "to take a hard look at the information provided in the GAO Report," it might "decide to deny the license renewal or impose operating conditions that would mitigate these [environmental] impacts."[167] Miami Waterkeeper asserts that the report "satisfies the 'materially different' requirement" for demonstrating that its contention was timely filed "because it provides information showing that it is genuinely plausible that consideration of the climate risks and associated environmental

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[162] New and Amended Contentions at 53, 56 (citing Final SEIS at 2-25 to -40, A-54, E-8 to -11); see U.S. Government Accountability Office, GAO-24-106326, "Nuclear Power Plants: NRC Should Take Actions to Fully Consider the Potential Effects of Climate Change," (Apr. 2, 2024), available at https://www.gao.gov/products/gao-24-106326 (GAO Report).

[163] New and Amended Contentions at 57–61.

[164] Id. at 61–62.

[165] Id. at 62–66.

[166] Id. at 68–69 (citing Final SEIS at E-1; 2019 SEIS § 4.16).

[167] Id. at 68.

impacts identified in the report would change the NRC Staff's conclusions regarding climate change-related environmental impacts."[168]

The GAO issued its report on April 2, 2024, a few days after the Staff issued the Final SEIS.[169] Therefore, we conclude that the report qualifies as "new" information under section 2.309(c)(1)(i). Whether the report presents materially different information, however, is a closer call. New documents that merely compile preexisting information generally would not meet the "materially different" standard.[170] And for the most part, the GAO Report provides a survey of climate-change information that was available before, and indeed was considered in the Final SEIS.[171] Moreover, the fact that the contention is based on a report issued by the GAO does not, in and of itself, provide a sufficient basis to demonstrate that the information supporting the contention is materially different from information previously available.[172]

But notably, in this case, in addition to compiling available climate data, the GAO conducted interviews with NRC and other government officials and visited two nuclear power plants, one of which was the Turkey Point Nuclear Generating Station.[173] At Turkey Point, the GAO interviewed plant staff and NRC resident inspectors.[174] The GAO used the information gathered from its site visit and interviews to inform its recommendations, which, in our view, is enough to tip the balance here. In other words, more than a mere compilation of preexisting

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[168] Id. at 52.

[169] See GAO Report at 1.

[170] See Crow Butte, CLI-20-8, 92 NRC at 264–65; Prairie Island, CLI-10-27, 72 NRC at 493.

[171] See Final SEIS § E.10 (citing 2019 SEIS §§ 4.15.3.1, 4.16).

[172] See Entergy Nuclear Operations, Inc. (Palisades Nuclear Plant and Big Rock Point Site), CLI-22-8, 96 NRC 1, 83–85 (2022) (concluding that a broad citation to a table in a GAO report was insufficient to support an admissible contention).

[173] See GAO Report at 2–4. The GAO also visited the Palo Verde Nuclear Generating Station in Arizona. Id. at 2.

[174] Id. at 2.

information, the GAO Report incorporated new information specific to Turkey Point to amplify preexisting climate information, which we find sufficient to qualify as materially different information.

That said, however, we conclude that the report does not provide the requisite support for the admission of Miami Waterkeeper's contention. Although Miami Waterkeeper asserts that Contention 3-A is new, it is substantively similar to a contention that Miami Waterkeeper proposed in its hearing request challenging the Staff's 2023 Draft SEIS.[175] And in LBP-24-3, we dismissed that contention on the ground that Miami Waterkeeper had not provided sufficient support to challenge the Staff's existing cumulative impacts analysis and its consideration of climate-change impacts.[176]

In an apparent attempt to address the deficiencies identified in the original contention, Miami Waterkeeper almost entirely relies on the findings in the GAO Report to do the heavy lifting in terms of its support for Contention 3-A. But Miami Waterkeeper would have the report carry more weight than it can bear. The GAO focused particularly on the NRC's safety reviews of nuclear power plant applications and determined that the NRC does not use climate projections data in those reviews.[177] After surveying available climate data, the GAO concluded that the NRC "has the opportunity to consider climate risks more fully," which "would provide greater assurance that licensees have adequate measures to address risks from climate change."[178]

Thus, the GAO made three recommendations to the NRC: (1) that the Chair direct the Staff "to assess whether its licensing and oversight processes adequately address the potential

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[175] See Hearing Request at 45–63.

[176] LBP-24-3, 99 NRC at 64–65.

[177] See, e.g., GAO Report at 39.

[178] Id. at 39–40.

for increased risks to nuclear power plants from climate change"; (2) that the Chair direct the Staff "to develop, finalize, and implement a plan to address any gaps identified in its assessment of existing processes"; and (3) that the Chair direct the Staff "to develop and finalize guidance on incorporating climate projections data into relevant processes, including what sources of climate projections data to use and when and how to use climate projections data."[179] In short, the GAO recommended that the NRC assess whether there are any gaps in its analyses, and if gaps are identified, the NRC should address them.[180]

Equally significant for our purposes is what the GAO Report did not do. Importantly, the GAO did not determine that any operating plants are unsafe or that they presently lack measures to address risks from climate change impacts.[181] To the contrary, without passing judgment on their adequacy, the GAO provided examples of measures that operating plants have adopted to address external events, including a flood protection barrier at Turkey Point and a backup pump for restoring water to the steam generators.[182] Additionally, the GAO acknowledged, again without judgment, that FPL uses wells to decrease salinity in the CCS and to mitigate the risks that high temperatures and drought conditions might have on the movement of saltwater toward the drinking water supply.[183] And the GAO noted instances where the

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[179] Id. at 40.

[180] See id. at 39–40 (stating that "it is unclear whether the safety margins for nuclear power plants established during the licensing period—in most cases over [forty] years ago—are adequate to address the risks that climate change poses to plants, and suggesting that the NRC would better fulfill its health and safety mission by "assessing whether its licensing and oversight processes adequately consider climate risks to nuclear power plants and developing and implementing a plan to address any gaps identified").

[181] See id. at 39–40.

[182] See id. at 19, 34.

[183] See id. at 15.

agency already considers climate change as part of its environmental review, including the license renewal context.[184]

Miami Waterkeeper does not explain how the GAO Report supports its claim that the Staff's discussion of cumulative impacts and climate change in the Final SEIS is inadequate. And given the GAO Report's particular focus, it was up to Miami Waterkeeper to make the necessary link between the report and the purported gaps in the Staff's cumulative impacts analysis.[185] It has not done so here.

Moreover, Miami Waterkeeper's claim that consideration of the GAO Report as part of the Staff's environmental review for Turkey Point might prompt the agency to deny the application or impose certain operating conditions overlooks that NEPA does not require a particular result or the imposition of mitigation measures.[186] We therefore conclude that Miami Waterkeeper has not provided sufficient support to raise a genuine dispute with the Final SEIS—that is, sufficient to demonstrate that the Staff's approach to assessing cumulative impacts from climate change was unreasonable.[187] We dismiss Contention 3-A because it does not satisfy the contention admissibility requirements in section 2.309(f)(1).

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[184] See id. at 36 n.54 (observing that "[a]ccording to NRC officials, [the] NRC uses the [U.S. Global Change Research Program's National Climate Assessment], which includes climate projections, in the environmental reviews it conducts during licensing and license renewals to assess the expected effects of nuclear power plants on the environment," including "greenhouse gas emissions associated with the life cycle of the plant as well as the potential effects of climate change on the environment"). Indeed, the Staff cites several climate-change reports in the Final SEIS and 2019 SEIS, including National Climate Assessments from the U.S. Global Change Research Program. See Final SEIS at E-9 to -12; 2019 SEIS at 4-132 to -33.

[185] See USEC, CLI-06-10, 63 NRC at 457.

[186] See Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 350 (1989); Citizens Against Burlington, Inc. v. Busey, 938 F.2d 190, 194 (D.C. Cir. 1991); Balt. Gas & Elec. Co. v. Nat. Res. Def. Council, Inc., 462 U.S. 87, 97–98 (1983).

[187] See LBP-24-3, 99 NRC at 64–65; 10 C.F.R. § 2.309(f)(1)(vi).

6. Contention 3-B: "The [Final SEIS] fails to adequately update its evaluation of FPL's SAMA analysis to reflect the effects of climate change on accident risk."

In Contention 3-B, Miami Waterkeeper challenges the site-specific analysis of severe accidents provided in Appendix D of the Final SEIS, specifically the Staff's conclusion that it has not identified new and significant information that would change the original SAMA analysis conducted in 2002 as part of the Staff's environmental review of the initial license renewal application for Turkey Point Units 3 and 4.[188] Miami Waterkeeper asserts that the Final SEIS "has not yet been updated to reflect the new and significant information concerning climate change-related severe accident risks in the GAO Report."[189] Therefore, Miami Waterkeeper argues, the Staff's analysis "falls short of what NEPA requires."[190]

Miami Waterkeeper asserts that the SAMA analysis should be updated to reflect climate-change impacts on accident risk caused by (1) flooding associated with hurricanes and sea-level rise, (2) high winds associated with hurricanes, and (3) increasing temperatures.[191] Miami Waterkeeper claims that the GAO Report "identifies Turkey Point as at the highest risk level for each of these [climate-change impacts]."[192] In addition, Miami Waterkeeper claims that the GAO Report identifies the NRC's license renewal process "as a particular area of concern."[193] Miami Waterkeeper asserts that were the Staff to consider the risks identified in the GAO Report as part of its environmental review, the Staff might question its conclusions regarding the

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[188] See New and Amended Contentions at 70–71; Final SEIS at 2-85, D-4 to -7.

[189] New and Amended Contentions at 70.

[190] Id. As the Commission has oft explained, the SAMA analysis is part of the agency's fulfillment of its obligations under NEPA and is separate from the agency's safety review. See, e.g., Indian Point, CLI-16-10, 83 NRC at 498; Entergy Nuclear Generation Co. and Entergy Nuclear Operations, Inc. (Pilgrim Nuclear Power Station), CLI-12-15, 75 NRC 704, 709 (2012).

[191] See id. at 72–75.

[192] Id. at 72 (citing GAO Report at 55).

[193] Id. at 75 (citing GAO Report at 36).

probability-weighted consequences of severe accidents.[194] Following that, Miami Waterkeeper argues, FPL might then be required to conduct an analysis that might identify potentially cost-beneficial SAMAs "thereby 'substantially reduc[ing]' the impact of operating Turkey Point into the 2050s on the environment."[195]

Because Contention 3-B, like Contention 3-A, relies almost entirely on the GAO Report, our ruling on the timeliness and admissibility of Contention 3-A applies equally here. We conclude that Contention 3-B is based on new and materially different information in the GAO Report. But we conclude that Contention 3-B is inadmissible for failure to raise a genuine dispute with the Staff's SAMA analysis. As discussed above, the GAO Report did not identify safety gaps at operating plants.[196] And it acknowledged that operating plants, including Turkey Point, already have adopted measures to address external events.[197] Further, and particularly relevant here, the GAO did not identify gaps in NRC environmental reviews.[198]

Miami Waterkeeper asserts that the GAO Report should have prompted the Staff to revise the SAMA analysis for Turkey Point with new and significant information.[199] But Miami Waterkeeper makes no effort to connect the dots between the recommendations in the GAO Report and the deficiencies it claims to exist in the Staff's environmental review for the subsequent license renewal of Turkey Point Units 3 and 4. And that connection is not apparent

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[194] Id. at 77–78 (citing Indian Point, CLI-16-10, 83 NRC at 494).

[195] Id. at 78 (quoting Final SEIS at D-5) (alteration in original).

[196] See, e.g., GAO Report at 38 ("Assessing its current processes would help NRC to determine whether they adequately address the potential for increased risks to nuclear power plants from climate change.").

[197] See, e.g., id. at 15, 19, 26, 29, 34 (providing photographs of equipment used at operating plants, including Turkey Point, to address external hazards).

[198] See id. at 36 n.54 (noting that the NRC uses climate projections in its licensing and license renewal environmental reviews).

[199] See New and Amended Contentions at 77–78.

from the report on its face, given that the GAO recommended that the NRC review its processes to ensure that they are adequate to cover impacts from climate change, without identifying specific deficiencies at operating plants.[200]

In LBP-24-3, we rejected a similar contention that Miami Waterkeeper had proposed in response to the Staff's 2023 Draft SEIS that claimed a deficiency in the Staff's consideration of climate-change impacts on severe-accident risk.[201] We concluded that the contention was based on speculation and lacked a specific challenge to the Staff's environmental analysis.[202] Here again, Miami Waterkeeper would have us infer that gaps exist in the Staff's environmental review for Turkey Point Units 3 and 4 that are not addressed in the Final SEIS. But it is not up to us to make the case for the admission of Miami Waterkeeper's contention.[203] Miami Waterkeeper has not met its burden to provide sufficient information to demonstrate a genuine dispute with the Final SEIS; therefore, it has not met the contention admissibility requirements in section 2.309(f)(1).[204]

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[200] See, e.g., GAO Report at 39–40.

[201] LBP-24-3, 99 NRC at 67–69.

[202] Id. at 69.

[203] See USEC, CLI-06-10, 63 NRC at 457; see also Pilgrim, CLI-12-15, 75 NRC at 714 ("[T]he SAMA analysis involves a host of inputs and methodologies, and when determining whether a petitioner has raised a litigable challenge, the question is not whether more or different analysis can be done. . . . [I]t is not enough for a contention merely to speculate that some input, some pathway, or some scenario left unconsidered may significantly alter the number and kinds of mitigation alternatives found cost-beneficial" under NEPA.). In dismissing Contentions 3-A and 3-B, we conclude only that Miami Waterkeeper has not adequately shown that the issues it raises meet the requirements for a hearing in this subsequent license renewal adjudication. Cf. Pilgrim, CLI-12-10, 75 NRC at 483 (observing that, even though a contention is not admitted, the agency continues to address, outside the adjudicatory process, any issues that may arise).

[204] See 10 C.F.R. § 2.309(f)(1)(vi). The Staff argues that Contention 3-B is outside the scope of the proceeding because Miami Waterkeeper is concerned about the effects of climate change "on the plant," but the Staff (1) mischaracterizes Miami Waterkeeper's contention, which (although inadequately supported) is focused on how climate change might influence external

Finally, because we conclude that Contention 3-B is not admissible, it is not necessary to our decision to address Miami Waterkeeper's waiver petition, and we therefore deny it as moot. Nevertheless, we note with significant skepticism the Staff's position that a waiver is

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events leading to a severe accident that then might change the agency's consideration of mitigation measures in the Final SEIS; and (2) conflates the safety review with the agency's separate statutory obligations under NEPA. See Staff Answer at 71–77 (asserting that issues involving the "current licensing basis," which are outside the scope of a license renewal safety review, are likewise outside the scope of the environmental review). This is the same constricted view of NEPA that courts have rejected, which, among other things, prompted the course correction we now see in the agency's SAMA analyses. See, e.g., Limerick Ecology Action, Inc. v. NRC, 869 F.2d 719, 730–31 (3d Cir. 1989) (highlighting the separate statutory obligations under the AEA and NEPA and refusing to adopt an "automatic exclusion" of issues from an environmental review "merely because operation of a facility will conform to the Commission's basic health and safety standards"); Final Rule, Environmental Review for Renewal of Nuclear Power Plant Operating Licenses, 61 Fed. Reg. 28,467, 28,480-81 (June 5, 1996) (1996 Rule). The agency's decision to exclude issues affecting the current licensing basis from license renewal safety reviews reflects a policy decision to focus on the effects of aging as part of license renewal and to handle other safety concerns through ongoing oversight. See, e.g., Final Rule, Nuclear Power Plant License Renewal; Revisions, 60 Fed. Reg. 22,461, 22,462 (May 8, 1995) (aiming to ensure a simpler, more stable regulatory process). That approach does not govern the agency's obligation to fulfill NEPA's twin aims of informed decision-making and informed public participation "to the fullest extent possible." Limerick, 869 F.2d at 729 (quoting NEPA § 102, 42 U.S.C. § 4332); accord Calvert Cliffs' Coordinating Comm., Inc. v. AEC, 449 F.2d 1109, 1117–18 (D.C. Cir. 1971). And the fact that the agency voluntarily has chosen to perform a quantitative SAMA analysis and incorporate information gleaned from its safety review does not change its separate NEPA obligations. See, e.g., 1996 Rule, 61 Fed. Reg. at 28,481; Pilgrim, CLI-12-15, 75 NRC at 708–09 & n.12; Indian Point, CLI-16-10, 83 NRC at 498, 509-10, 515; see also Indian Point, CLI-16-10, 83 NRC at 518–19 (directing the Staff to refer potentially cost-beneficial SAMAs identified during the license renewal environmental review process to the technical staff for possible implementation as part of its safety and oversight role, outside of license renewal). Were we to credit the Staff's argument that the SAMA analysis incorporates current licensing basis information and therefore a challenge to the SAMA analysis is an implicit out-of-scope challenge to that safety-related information, then no SAMA contention would ever be admissible (and arguably, the Commission's extensive SAMA case law would look quite different). In the same vein, we find unavailing the Staff's attempt to distinguish the Commission's decision in Diablo Canyon. See Staff Answer at 74; Pacific Gas and Electric Co. (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-11-11, 74 NRC 427, 442–43 (2011). The Staff claims that because the newly discovered fault at issue in that case had not yet been considered in the safety review, it was not outside the scope of the environmental review. Staff Answer at 74. But the Staff splits hairs. Under the Staff's logic, if the scope of the license renewal safety review somehow limits the environmental review of SAMAs, then the contention in Diablo Canyon would have been out of scope for raising an issue unrelated to aging that would have been handled through ongoing plant oversight. For these reasons, and for those we provided in response to a similar contention in LBP-24-3, we are not persuaded by the Staff's argument that Contention 3-B should be rejected as out of scope. LBP-24-3, 99 NRC at 68–69 n.173.

required to challenge the SAMA analysis in the Final SEIS.[205] The Staff stands alone in its position on this issue; Miami Waterkeeper and FPL maintain that a waiver is not required.[206]

Up until the Commission's recent adoption of a new rule governing license renewal environmental reviews, the prior version of the rule, of which the provision governing SAMA analyses was part,[207] did not cover subsequent license renewal applications.[208] And the parties agree that the new rule does not apply to this proceeding because FPL opted not to wait for the conclusion of the rulemaking and the Staff prepared a site-specific analysis to complete its environmental review of FPL's subsequent license renewal application.[209] We therefore question whether anything is left to "waive" if neither the prior rule nor the new rule apply.[210]

In support of its position, the Staff cites the Commission's decision in the Limerick license renewal proceeding, which clarified that, when a SAMA analysis already has been conducted for a particular plant, the issue whether new and significant information should be considered is the "functional equivalent" of a generic "Category 1" issue and is not subject to

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[205] See Staff Answer at 79.

[206] See FPL Answer at 60; Reply at 54–55.

[207] See 10 C.F.R. § 51.53(c)(3)(ii)(L) (2023).

[208] See Florida Power & Light Co. (Turkey Point Nuclear Generating Units 3 and 4), CLI-22-2, 95 NRC 26, 31 (2022) (holding that the then-findings from the generic environmental impact statement for license renewal (GEIS) incorporated in Part 51 did not apply to subsequent license renewal applications); see also Duke Energy Carolinas, LLC (Oconee Nuclear Station, Units 1, 2, and 3), CLI-22-3, 95 NRC 40, 42–43 (2022).

[209] See Staff Answer at 83–84; FPL Answer at 9; Miami Waterkeeper Reply at 3. The new rule is materially identical—it treats the SAMA analysis as a Category 1 issue unless an analysis has not yet been conducted for a particular plant. See Part 51 Amendments, 89 Fed. Reg. at 64,180 (acknowledging that for plants without a previous SAMA analysis, a site-specific analysis of measures to mitigate severe accidents would be necessary).

[210] The prohibition on challenges to Commission rules in adjudications presupposes the existence of an applicable rule. See 10 C.F.R. § 2.335 ("[N]o rule or regulation of the Commission, or any provision thereof . . . is subject to attack by way of discovery, proof, argument, or other means in any adjudicatory proceeding subject to [the Commission's rules of practice and procedure].").

challenge absent a waiver.[211] In our view, the absence of an applicable rule undermines the Staff's reliance on Limerick.[212] The prior rule provided the source of the generic "Category 1" and site-specific "Category 2" structure discussed in that case, and the rationale underlying that structure, carried forward to the new rule, is based on whether the agency has chosen to fulfill its NEPA obligations through a generic analysis or whether a site-specific analysis is necessary.[213] In this proceeding, however, the Staff prepared a site-specific analysis to remedy the deficiencies the Commission found in the Staff's prior environmental review.[214] And, again, the parties agree that the new rule does not apply. Especially considering that Limerick involved an initial license renewal application, that case would appear to us to be inapposite.

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[211] Staff Answer at 79; see Exelon Generation Co., LLC (Limerick Generating Station, Units 1 and 2), CLI-13-7, 78 NRC 199, 203 (2013) (citing Exelon Generation Co., LLC (Limerick Generating Station, Units 1 and 2), CLI-12-19, 76 NRC 377, 386 (2012)).

[212] See Limerick, CLI-13-7, 78 NRC at 212 ("[T]o litigate a SAMA-related contention in this, as well as other adjudicatory proceedings where the SAMA-analysis exception [in 10 C.F.R. § 51.53(c)(3)(ii)(L)] applies, a petitioner must obtain a waiver by satisfying the requirements in section 2.335(b)." (emphasis added)).

[213] See id. at 209–11; Limerick, CLI-12-19, 76 NRC at 386; Part 51 Amendments, 89 Fed. Reg. at 64,166–67.

[214] See Oconee, CLI-22-3, 95 NRC at 41–42.

III. CONCLUSION

For the foregoing reasons, we (1) deny Miami Waterkeeper's motion to admit new and amended contentions, dismissing as inadmissible Contentions 1-A, 1-B, 1-C, 2, 3-A, and 3-B; (2) deny Miami Waterkeeper's waiver petition as moot; and (3) grant in part FPL's motion to strike portions of Miami Waterkeeper's reply. With no proposed or admitted contentions pending before us, we terminate this proceeding. Any petition for review of this memorandum and order must be filed in accordance with 10 C.F.R. § 2.341(b).

It is so ORDERED.

THE ATOMIC SAFETY
AND LICENSING BOARD

/RA/

Emily I. Krause, Chair
ADMINISTRATIVE JUDGE

/RA/

Dr. Sue H. Abreu
ADMINISTRATIVE JUDGE

/RA/

Dr. Michael F. Kennedy
ADMINISTRATIVE JUDGE

Rockville, Maryland
August 27, 2024

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of	)	
	)	
FLORIDA POWER & LIGHT COMPANY	)	Docket Nos. 50-250-SLR-2
	)	50-251-SLR-2
(Turkey Point Nuclear Generating Units 3 & 4)	)	
	)	

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing **MEMORANDUM AND ORDER (Dismissing Proposed New and Amended Contentions and Terminating Proceeding) (LBP-24-08)** have been served upon the following persons by Electronic Information Exchange.

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Office of the Secretary of the Commission

Dated at Rockville, Maryland,
this 27th day of August 2024.