August 3, 2012

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
	)	
ENTERGY NUCLEAR OPERATIONS, INC.	)	Docket Nos. 50-247-LR/286-LR
	)	
(Indian Point Nuclear Generating Units 2 and 3)	)	

NRC STAFF'S ANSWER TO "HUDSON RIVER SLOOP CLEARWATER, INC.'S MOTION FOR LEAVE TO ADD A NEW CONTENTION BASED UPON NEW INFORMATION AND PETITION TO ADD NEW CONTENTION" (CONTENTION CW-SC-4 (SAFETY OF LONG-TERM STORAGE))

INTRODUCTION

Pursuant to 10 C.F.R. § 2.309(h)(1) and the Atomic Safety and Licensing Board's ("Board") Scheduling Order, as modified,[1] the Staff of the U.S. Nuclear Regulatory Commission ("Staff") hereby files its answer to the consolidated motion and new safety contention CW-SC-4 filed by Hudson River Sloop Clearwater, Inc. ("Clearwater" or "CW") on July 9, 2012, concerning the aging management of spent fuel pools and the long-term safety of waste storage.[2] Clearwater alleges in part that, to meet the Atomic Energy Act ("AEA"), "the NRC or the applicant must show that there is reasonable assurance that long-term on-site storage is safe prior to any decision to grant renewed licenses," and that the "generic work currently available

[1] Scheduling Order (July 1, 2010); Order (Extending Page Limitations for Pleadings as They Apply to Answers to Clearwater's and Riverkeeper's January 24, 2011, Joint Motion, and New York State's Motion to Amend Contention 17A and Waiver Petition, Filed January 24, 2011), (unpublished) (Feb. 17, 2011).

[2] Hudson River Sloop Clearwater, Inc.'s Motion For Leave To Add A New Contention Based Upon New Information And Petition To Add New Contention (July 9, 2012) ("Motion").

combined with the Safety Evaluation Report ('SER') related to IPEC lacks sufficient analysis to provide a reasonable assurance of safety for long-term fuel storage." Motion at 3-4.

The Staff respectfully submits that Contention CW-SC-4 lacks adequate legal and factual support and does not meet the Commission's contention admissibility requirements in 10 C.F.R. § 2.309(f)(1). Additionally, while Clearwater explicitly relies on the decision by the U.S. Court of Appeals for the District of Columbia Circuit in *New York v. NRC*, 681 F.3d 471 (D.C. Cir. 2012), that decision did not affect any safety regulations governing the contents of a license renewal application, and it affords no support for the admission of Clearwater's newly proffered safety contention. Accordingly, the Staff opposes Clearwater's motion requesting the admission of this new contention, and recommends that it be denied.

BACKGROUND AND REGULATORY FRAMEWORK

I. Procedural History

On several previous occasions, Clearwater has proffered a contention related to the safety of long-term spent fuel storage. Each of the previously-proffered similar contentions (CW-SC-1, CW-SC-2, and CW-SC-3) has been rejected by this Board, in accordance with Commission Orders and precedent. *See* Order (July 14, 2010) (unpublished) (dismissing CW-SC-1 as directed by the Commission in *Entergy Nuclear Operations, Inc.* (Indian Point Nuclear Generating Units 2 and 3), CLI-10-19, 72 NRC 98, 100 (2010)); Memorandum and Order (Ruling on Pending Motions for Leave to File New and Amended Contentions) (July 6, 2011) (unpublished) (dismissing CW-SC-2 and CW-SC-3).

Clearwater's current spent fuel storage contention, Contention SC-4, alleges as follows:

> The license renewal application requesting the relicensing of Indian Point Units 2 and 3 is inadequate because it provides insufficient analysis of the aging management of the spent fuel pools that could be used to store waste on the site in the long-term. In addition, both the applicant and the NRC Staff have failed to establish that any combination of such storage will provide adequate protection of safety over the long term.

Motion at 8; emphasis added. Recognizing that its previous spent fuel storage contentions were rejected by the Board, Clearwater asserts that the D.C. Circuit Court of Appeal's opinion in *New York v. NRC*, 681 F.3d 471 (D.C. Cir. 2012) constitutes "new information" which renders the contention admissible. Motion at 4.

II. The NRC's Waste Confidence Decision

In the National Environmental Policy Act of 1969 ("NEPA"), Congress announced a national policy "to create and maintain conditions under which man and nature can exist in productive harmony." 42 U.S.C. § 4331(a). NEPA requires the NRC to prepare an environmental impact statement ("EIS") to support a major Federal action, such as issuing a license for a power reactor. 42 U.S.C. § 4332. The regulations in 10 C.F.R. Part 51 establish and govern the NRC's process for satisfying the requirements of NEPA.

Before acting on a nuclear power reactor license application, NEPA requires the NRC to consider the environmental impacts of operation, including on-site storage and disposal of the reactor's spent fuel after the licensed period of operation ends. *Minnesota v. NRC*, 602 F.2d 412, 414-15, 419 (D.C. Cir. 1979). In the past, "the Commission sensibly has chosen to address high-level waste disposal generically." *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 345 (1999). The agency has most recently addressed issues pertaining to spent fuel storage and disposal in its "Waste Confidence Decision Update," 75 Fed. Reg. 81,037 (Dec. 23, 2010) ("Waste Confidence Decision") and a temporary storage rulemaking, "Consideration of Environmental Impacts of Temporary Storage of Spent Fuel after Cessation of Reactor Operation," Final Rule, 75 Fed. Reg. 81,032 (Dec. 23, 2010) ("Temporary Storage Rule").

The Waste Confidence Decision and Temporary Storage Rule support and extend generic findings in 10 C.F.R. § 51.23(a), regarding the impacts of spent fuel storage after the

licensed period of operation. *See* 10 C.F.R. § 51.23(a). The Commission rendered several findings in § 51.23(a). Two of those findings are (1) that spent fuel "can be stored safely and without significant environmental impacts for at least 60 years beyond the licensed life for operation" and (2) that "there is reasonable assurance that sufficient mined geologic repository capacity will be available . . . when necessary." 10 C.F.R. § 51.23(a). In turn, 10 C.F.R. § 51.23(b) relies on § 51.23(a) to exclude "discussion of any environmental impact of spent fuel storage [during] the period following the term of the reactor operating license" in any environmental impact statement, environmental assessment, or environmental report. 10 C.F.R. § 51.23(b).

III. Relationship of the Waste Confidence Decision, NEPA, and the Atomic Energy Act

As discussed below, the Commission adopted its Waste Confidence Decision Update and Temporary Storage Rule in furtherance of its responsibilities under NEPA, to consider the environmental impacts of its licensing actions. This Board has previously had occasion to consider the Commission's Waste Confidence Decision, the Waste Confidence Decision Update, and various related statements.[3] The Staff has also previously briefed the history of the Waste Confidence Decision in this proceeding; to avoid unnecessary repetition those discussions are incorporated by reference herein.[4]

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[3] See, e.g., (1) Memorandum and Order (Ruling on Pending Motions for Leave to File New and Amended Contentions) (July 6, 2011), slip op. at 36-52; and (2) Memorandum and Order (Certification to the Commission of a Question Relating to the Continued Viability of 10 C.F.R. § 51.23(b) Arising from Clearwater's Motion for Leave to File New Contentions) (Feb. 2, 2010), slip op. at 18-22.

[4] *See* (1) NRC Staff's Answer to Hudson River Sloop Clearwater, Inc. and Riverkeeper, Inc's Joint Motion and Petition to Add New Contentions, at 8-13 (discussing Waste Confidence Decision and Related Rulemaking Proceeding) (Feb. 18, 2011) (addressing Contentions CW-EC-8/RK-EC-6, CW-EC-9/RK-EC-7, CW-SC-2/RK-TC-3, and CW-SC-3/RK-TC-4), at 8-13; and (2) NRC Staff's Answer to Hudson River Sloop Clearwater, Inc.'s Motion for Leave to Add New Contentions Based Upon New Information (Nov. 20, 2009) (addressing Contentions CW-EC-7 and CW-SC-1), at 14-21.

The Court of Appeal's decision in *New York v. NRC,* 681 F.3d 471 (D.C. Cir. June 8, 2012), vacated the Commission's Waste Confidence Decision Update and Temporary Storage Rule, and remanded those rulemakings to the NRC for further proceedings. Accordingly, as explained below, upon issuance of the Court of Appeals' mandate, the 2010 Waste Confidence Decision Update and associated amended 10 C.F.R. § 51.23(a) will be vacated.

A. NEPA Is the Basis for the Commission's Waste Confidence Decision

As discussed above, the Commission adopted its Waste Confidence Decision in further of its responsibilities under NEPA. Importantly, as the Commission recently observed, neither the Waste Confidence Decision nor its companion rule in 10 C.F.R. § 51.23 allow for the issuance of a license. *See* 75 Fed. Reg. at 81,033. Further, as the Commission stated, the "Waste Confidence Decision and Rule satisfy a portion of the NRC's NEPA obligations—those associated with the environmental impacts after the end of license life." *Id.* The Commission stated that "the Waste Confidence Decision is the Environmental Assessment—the NRC's NEPA analysis—that provides the basis for the generic determination of no significant environmental impacts reflected in the rule (10 CFR [§] 51.23)." *Id.*

Significantly, the Waste Confidence Rule in 10 C.F.R. § 51.23(a), by its own terms, applies only to the storage of spent fuel *after* a reactor ceases operation. *Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3, and 4), CLI-01-17, 54 NRC 3, 23 n.14. (2001) (*affirming* LBP-01-6, 53 NRC 138 (2001)).

B. The AEA Is Not the Basis for the Waste Confidence Decision

The AEA allows the Commission to issue and renew nuclear reactor and other licenses. *See* 42 U.S.C. § 2133(c). To issue a renewed nuclear power reactor license, the Commission must make both safety findings in 10 C.F.R. Part 54 under the AEA and the Energy

Reorganization Act[5] and environmental findings in 10 C.F.R. Part 51 under NEPA. The required findings that the Commission must make are summarized in 10 C.F.R. Part 54, as follows:

> (a) Actions have been identified and have been or will be taken with respect to the matters identified in Paragraphs (a)(1) and (a)(2) of this section, such that there is reasonable assurance that the activities authorized by the renewed license will continue to be conducted in accordance with the [current licensing basis] CLB, and that any changes made to the plant's CLB in order to comply with this paragraph are in accord with the Act and the Commission's regulations. These matters are:
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> > (1) managing the effects of aging during the period of extended operation on the functionality of structures and components that have been identified to require review under § 54.21(a)(1); and
> > (2) time-limited aging analyses that have been identified to require review under § 54.21(c).
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> (b) Any applicable requirements of Subpart A of 10 CFR Part 51 have been satisfied.
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> (c) Any matters raised under § 2.335 have been addressed.

10 C.F.R. § 54.29 (emphasis added).

Thus, the standards for issuance of renewed licenses are limited to specific safety findings under the AEA as shown in 10 C.F.R. Part 54. The agency's NEPA review is conducted separately under 10 C.F.R. Part 51. NEPA, of course, is a procedural statue that requires consideration of environmental impacts of certain federal actions but does not mandate any particular outcome once the agency has considered those impacts.[6]

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[5] The regulations in 10 C.F.R. Part 54 govern the issuance of renewed operating licenses and renewed combined licenses for nuclear power plants licensed pursuant to Sections 103 or 104b of the Atomic Energy Act of 1954, as amended, and Title II of the Energy Reorganization Act of 1974 (88 Stat. 1242). 10 C.F.R. § 54.1.

[6] *See, e.g., Entergy Nuclear Operations, Inc.* (Indian Point Nuclear Generating Units 2 and 3), CLI-11-14, 74 NRC __, __ (Dec. 22, 2011), slip op. at 16.

The Commission has previously addressed concerns that its Waste Confidence Decision findings violated the AEA; in this regard, the Commission explained that these findings address NEPA, and not the AEA:

> Some commenters believe that this revision of the Waste Confidence findings violates the Atomic Energy Act of 1954 (AEA) because the AEA precludes NRC from licensing any new [nuclear power plant] NPP or renewing the license of any existing NPP if it would be "inimical * * * to the health and safety of the public." 42 U.S.C. 2133(d). ... NRC's revised Waste Confidence findings and revised generic determination are not licensing decisions, but merely generically resolve certain discrete issues in licensing proceedings. They are not determinations made as part of the licensing proceedings for NPPs or [independent spent fuel storage installations] ISFSIs or the renewal of those licenses. They do not authorize the storage of [spent nuclear fuel] SNF in spent fuel pools or ISFSIs. The revised findings and generic determination include conclusions of the Commission's environmental analyses, under NEPA, of the foreseeable environmental impacts stemming from the storage of spent fuel after the end of reactor operation.

75 Fed. Reg. at 81034 (emphasis added).

Thus, for safety findings, the regulations address, and are limited to, findings concerning "the activities authorized by the renewed license," and are separate and distinct from the NEPA-based requirements of Subpart A of 10 C.F.R. Part 51. Activities, actions, and findings beyond those "with respect to the matters identified" in 10 C.F.R. §§ 54.29(a)(1) and (a)(2) are immaterial to the safety findings needed for a license renewal decision. The Waste Confidence findings are thus not part of the safety determinations required for license renewal under 10 C.F.R. Part 54. *See* 75 Fed. Reg. at 81034.

IV. The Safe Management of Spent Fuel is Addressed Separately.

With respect to the safe management of spent fuel, the Commission has stated:

> To assure the continuity of safe management of spent fuel, the Commission, in a separate action, is preparing an amendment to 10 CFR Part 50 which would require licensees of operating nuclear power reactors to submit, no later than 5 years before expiration of the reactor operating license, written notification to

> the Commission, for its review and approval, of the actions which the licensee will take to manage and provide funding for the management of all irradiated fuel at the reactor site following expiration of the reactor operating license, until ultimate disposal of the spent fuel in a repository.

"Final Waste Confidence Decision," 49 Fed. Reg. 34,658, 34,680 (Aug. 31, 1984); emphasis added (referring to Requirements for Licensee Actions Regarding the Disposition of Spent Fuel Upon Expiration of Reactor Operating Licenses," 49 Fed. Reg. 34,688 (Aug. 31, 1984)). Thus, the Commission, in a separate rulemaking, added 10 C.F.R. § 50.54(bb), which requires reactor licensees to submit written notification to the Commission describing the licensee's program for post-operational management of all irradiated fuel which is at the reactor at the time the licenses expire pending ultimate disposal of the irradiated fuel in a repository spent fuel. 49 Fed. Reg. at 34,690. Currently, this spent fuel management plan regulation states in part:

> For nuclear power reactors licensed by the NRC, the licensee shall, within ... 5 years before expiration of the reactor operating license, ... submit written notification to the Commission for its review and preliminary approval of the program by which the licensee intends to manage ... all irradiated fuel at the reactor following permanent cessation of operation of the reactor until title to the irradiated fuel and possession of the fuel is transferred to the Secretary of Energy for its ultimate disposal in a repository. ... Final Commission review will be undertaken as part of any proceeding for continued licensing under part 50 or part 72 of this chapter. The licensee must demonstrate to NRC that the elected actions will be consistent with NRC requirements for licensed possession of irradiated nuclear fuel and that the actions will be implemented on a timely basis.

10 CFR § 50.54(bb) (emphasis added). [7]

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[7] The programs submitted by nuclear power reactor licensees under 10 C.F.R. § 50.54(bb) are subject to NRC approval in the following manner:

> The Commission's review of each licensee's plans for management and ultimate disposal of all irradiated fuel at the reactor following operating license expiration is intended to assure that each licensee has made adequate advance preparations, including allowance

(continued. . .)

V. Safe Management of Spent Fuel Is Required Under Entergy's Part 50 License, Independently From License Renewal

The Commission considered, but did not make, changes to 10 C.F.R. § 50.54(bb) to delay the submission of the spent fuel management plans for license renewal applicants. Final Rule, Nuclear Power Plant License Renewal, 56 Fed. Reg. 64,943, 64,968-69 (Dec. 13, 1991). In response to public comments and policy considerations, "the Commission has determined that, even though a plant may be seeking a renewed license, some planning for the possibility that a plant would have to decommission (i.e., the application is denied) is still appropriate." *Id.* at 64,968. The Commission further indicated that that these Part 50 requirements apply regardless of whether the licensee is seeking license renewal:

> [The Commission] recognizes that this would require a renewal applicant to evaluate decommissioning needs in a preliminary manner while a license renewal application could also be under review. However, the Commission believes that prudent planning for decommissioning is appropriate and that waiver of the requirements for preliminary decommissioning, absent a clear

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(. . .continued)

> for contingencies, for managing spent fuel in a manner which provides adequate protection of the public health and safety and the environment until it is transferred to the Secretary of Energy for disposal.
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> . . .
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> The provisions of § 50.54(bb) may be used by the Commission in determining if it needs to take any further action. The Commission's review will focus on the identification of discrepancies or omissions and its "approval" will signify that, based on the information available at the time of filing the notification, the licensee's plans are sound and will provide adequate protection of the public health and safety and the environment. ... The plan would then, at license expiration and termination of reactor operation, become part of the conditions of an amended Part 50 license for a shut down reactor facility, or a Part 72 license for storage of spent nuclear fuel following termination of reactor operation.

49 Fed. Reg. at 34,691-92 (emphasis added).

> indication that a license will be renewed, would appear to predetermine the outcome of a renewal application. If the current decommissioning requirements are modified in the future, the Commission will reconsider the need to submit preliminary decommissioning information while a renewal applicant is under review.

Id. at 64,969 (emphasis added).

Thus, a licensee's post-operational storage plans are subject to separate review and preliminary approval under the current operating license regulations in 10 C.F.R. § 50.54(bb), and are distinct and discrete licensing actions, separate and apart from license renewal. For *Indian Point* in particular, this point was recently re-emphasized. Specifically, in addressing a petitioner's request for rulemaking for post-operational long-term fuel storage specifically for Indian Point,[8] the Commission explained:

> The Commission shares the petitioner's concerns regarding legacy sites. ... <u>The provisions of 10 CFR 50.54(bb) require the licensee to provide a plan for the management of spent fuel. ... These requirements work together before the end of operations to assure that the licensee has the financial ability to safely decommission the site and to manage the spent fuel.</u>

76 Fed. Reg. at 76,326 (emphasis added). Further, the Commission described multiple regulatory requirements, wholly apart from its waste confidence decision, to assure that spent fuel is stored safely pending its ultimate disposition:

[8] The petitioner made requests regarding financial assurance and decommissioning, and also alleged that (1) Entergy is violating NRC rules and regulations by allowing Indian Point Nuclear Generating Unit No. 1 (IP1) to remain in SAFSTOR, and is illegally depending on parts of IP1 to help run Indian Point Nuclear Generating Units No. 2 and 3 (IP2 and IP3), and is using the reactor of IP1 as an illegal storage/dumping ground for radiological waste streams from the continued operations of IP2 and IP3; and (2) the NRC has negligently allowed certain licensees to violate the current regulations on funding and the filing of reports. Petition for Rulemaking; Denial; Petition for Rulemaking Submitted by Sherwood Martinelli, 76 Fed. Reg. 76,322 (Dec. 7, 2011)

> The NRC's regulations in 10 CFR Part 20, “Standards for Protection Against Radiation,” provide general requirements for ensuring that radioactive waste is stored safely. ... The requirements of 10 CFR 50.54(bb) require the licensee to provide a plan for managing spent fuel until it is transferred to the Secretary of Energy for final disposal. The Waste Confidence Decision combined with the ongoing requirement to provide adequate financial assurance for decommissioning, and to maintain a spent fuel management plan, indicate that a facility in SAFSTOR will not become a legacy site in the event some waste from another reactor on the site is placed in the SAFSTOR facility.

Id. at 76,326.

VI. The D.C. Circuit Court of Appeals Ruling on the NRC's Waste Confidence Decision Update and Temporary Storage Rule Did Not Vacate 10 C.F.R. § 50.54(bb)

In the petition for review filed before the D.C. Circuit Court of Appeals, four states, an Indian community, and a number of environmental groups challenged 10 C.F.R. § 51.23(a), as amended, based on the Waste Confidence Decision Update. In the ensuing decision, the Court of Appeals reviewed the Commission's environmental assessment (“EA”) of the temporary on-site storage of spent nuclear fuel, and concluded that the Commission failed to examine properly the risks of environmental harm due to pool leakage and the risk of a fire resulting from the fuel rods becoming exposed to air (which the petitioners contended required a full Environmental Impact Statement, not just an EA). *New York v. NRC*, 681 F.3d at 479-80. The court did not address the adequacy of the Commission’s regulatory regime for spent fuel management plans or the provisions of 10 C.F.R. § 50.54(bb); indeed those regulatory requirements were not challenged and were neither reviewed nor vacated.

ARGUMENT

I. Legal Standards Governing the Admissibility of New/Amended Contentions

The Staff has previously addressed the legal requirements governing the admissibility of contentions on numerous occasions,[9] and the Board has issued numerous decisions ruling on the admissibility of contentions in which it summarized the legal standards governing new or amended contentions. *See, e.g.,* Memorandum and Order (Ruling on Pending Motions for Leave to File New and Amended Contentions), at 2-3 (July 6, 2011).

It is well established that "[t]he NRC has not, and will not, litigate claims about the adequacy of the Staff's safety review in licensing adjudications."[10] Thus, petitioners do not have the right to proffer contentions which claim errors in the Staff's safety review. *Id*. Instead, contentions must be based upon the applicant's license application and Environmental Report. *Turkey Point*, CLI-01-17, 54 NRC at 24. In particular, the adequacy of the license application, not the NRC Staff's review, must be addressed in a contention raising safety issues. See i*d.* (*citing Baltimore Gas & Electric Co.* (Calvert Cliffs Nuclear Power Plant, Units 1 and 2), CLI-98-25, 48 NRC 325, 350 (1998), *aff'd sub nom National Whistleblower Center v. NRC*, 208 F.3d 256 (D.C. Cir.), *cert. denied*, 121 S. Ct. 758 (2001)).

II. Onsite Storage of Spent Fuel Raises No Safety Question for License Renewal

In *Turkey Point*, the Commission affirmed the licensing board's rejection of safety concerns with fuel pools and spent fuel storage, stating as follows:

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[9] *See, e.g.*, NRC Staff's Answer to Hudson River Sloop Clearwater, Inc. and Riverkeeper, Inc's Joint Motion and Petition to Add New Contentions, at 14-18.

[10] *AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), CLI-08-23, 68 NRC 461, 476 (2008).

> It should be noted that during the licensing of the spent fuel pools under the current [reactor] license, the operation of the pools was previously evaluated and found safe for operation up to the approved capacity. If, in the future, [the licensee] were to seek to expand the capacity of the pools or to construct dry cask storage, its action would be subject to separate environmental and safety evaluation by the NRC, with associated license amendments and hearing opportunities. If additional capacity is not required, it is possible that the spent fuel pools will never operate differently as a result of license renewal. This highlights that the concerns raised by [the petitioner] with respect to the spent fuel pools are not inherent in license renewal itself and are not within the scope of this renewal proceeding.

Florida Power & Light Co. (Turkey Point Nuclear Generating Plant, Units 3, and 4), CLI-01-17, 54 NRC 3, 23 n.15. (2001), *aff'g* LBP-01-6, 53 NRC 138 (2001) (emphasis added). Claims regarding issues such as inadequate construction or inadequate design and lack of "defense in depth" go to the adequacy of the plant's current licensing basis ("CLB") which is not within the scope of the license renewal review. *Turkey Point*, CLI-01-17, 54 NRC at 23.

III. Clearwater SC-4 Is Inadmissible

As set out *supra* at 2, Clearwater SC-4 alleges (a) that "[t]he license renewal application . . . is inadequate because it provides insufficient analysis of the aging management of the spent fuel pools that could be used to store waste on the site in the long-term"; and (b) that "both the applicant and the NRC Staff have failed to establish that any combination of such storage will provide adequate protection of safety over the long term." Motion at 8 (emphasis added). Clearwater supports this contention by referring to documents it had previously filed in this proceeding.[11] As explained below, this newly-filed safety contention must be rejected.

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[11] Motion at 8-9, *citing* Prefiled Direct Testimony of Arnold Gundersen Regarding Consolidated Contention RK-EC-3/CW-EC-1 (Spent Fuel Pool Leaks) (filed Dec. 22, 2011) (Exhibit RIV000060); Expert Witness Declaration of Arnold Gundersen Regarding Aging Management of Nuclear Fuel Racks (Feb. 25, 2011); and NUREG/CR-7111 "A Summary of Aging Effects and Their Management in Reactor Spent Fuel Pools, Refueling Cavities, Tori, and Safety-Related Concrete Structures," (Jan. 2012).

A. CW-SC-4 Must Be Rejected Under 10 C.F.R. § 2.309(f)(1)

1. The Long-Term Storage Issue Clearwater Raises Is Beyond the Scope of License Renewal

Clearwater asserts, without citation to any particular part of the Indian Point LRA or the Commission's regulations, that Entergy's aging management plan is inadequate because it fails to extend beyond the period of extended operation. Motion at 11. Clearwater asserts that the Applicant must now examine the future dangers of spent fuel storage for an indefinite period of time. Motion at 10. Clearwater further asserts that Entergy's plans are inadequate in specific areas during the period of extended operation and lists various reasons – but several of Clearwater's supporting arguments go to long-term, indefinite storage, not actions *during* the period of extended operation. *E.g.* Motion at 11-12 (citing *Minnesota vs. NRC*, 602 F.2d 412 (D.C. Cir. 1979)); Motion at 13 § III (asserting inadequate proposals to address long-term degradation of Boraflex or other fuel "wrapping"). Clearwater also asserts, without citation to legal authority, that the issue of indefinite storage, while previously outside of the scope of license renewal, is now properly within the scope of license renewal. Motion at 15 (admitting that the existing rules do not require such information, but asserting it is needed nonetheless).

Contrary to Clearwater's argument, no new requirement to address indefinite storage as part of the safety review is created through the D.C. Circuit's decision in *New York v. NRC*. Accordingly, that decision does not cause the LRA suddenly to become incomplete or deficient in its descriptions of waste storage and aging. Thus, the Commission has explicitly recognized that a license renewal applicant will need to evaluate decommissioning needs in a preliminary manner, under requirements governing its current Part 50 license, while a license renewal application may be under review. 56 Fed. Reg. at 64,696. The license renewal proceeding is separate from the NRC's regulations in 10 C.F.R. Part 20 and the requirements of 10 C.F.R. 50.54(bb), which continue to require the licensee to provide a plan for managing spent fuel until

it is transferred to the Secretary of Energy for final disposal. 76 Fed. Reg. 76,322, 76,326 (Dec. 7, 2011). Nothing in the Court of Appeals' decision affects those requirements; further, Clearwater has not identified any license renewal decision or regulation in 10 C.F.R. Part 54 that shows how or why the long term storage issue is material to license renewal. Indeed, there is no long-term spent fuel aging effect requiring management that is only associated with renewed licenses. *See* 10 C.F.R. § 54.29(a)(1) (stating that a renewed license may be issued upon a finding that "managing the effects of aging during the period of extended operation" has been sufficiently addressed).

In sum, Contention CW-SC-4 presents issues of long-term storage which are not part of license renewal safety considerations in 10 C.F.R. Part 54, are beyond the scope of a renewal proceeding, are immaterial to the NRC's required findings, and do not represent an information gap in the LRA. The contention must be denied, in accordance with 10 C.F.R. §§ 2.309(f)(1)(iii, iv, & vi) (scope, materiality, and omission of required information).

2. The Long-Term Storage Issue is Immaterial to License Renewal

Clearwater asserts that it has identified a material dispute with what is needed to comply with the AEA. Motion at 16. This claim fails to support the admission of this contention. In this regard, the safety of long-term storage is immaterial to the issuance of a renewed license under 10 C.F.R. § 54.92 because it is subject to separate licensing actions, either through an amendment to the operating license for a shut down reactor or through issuing a part 72 license. *See* 49 Fed. Reg. at 34,691-692. Clearwater's concerns regarding long-term storage are the subject of a separate regulatory process, involving amendments to a Part 50 license or new licenses under Part 72, as described above. These separate regulatory actions are outside the

scope of this license renewal proceeding, as noticed in the *Federal Register*.[12] See, e.g., *Turkey Point*, CLI-01-17, 54 NRC at 23 n.15.

The D.C. Circuit's opinion in *New York v. NRC* vacates 10 C.F.R. § 51.23(a); it has no effect on regulations in 10 C.F.R. Parts 50, 54 or 72. As the Commission previously explained, the Temporary Storage Rule (10 C.F.R. § 51.23(a)) by its own terms, applies only to the storage of spent fuel *after* a reactor ceases operation. *Turkey Point*, 54 NRC at 23 n.14. The issues addressed by the court's ruling are thus inapplicable to any safety demonstration required for a license renewal application..

Moreover, as the Board previously observed, the LRA need not address "long-term" safety for spent fuel, "when all other systems, structures, and components need only address aging management for the term of the license extension." Memorandum and Order of July 6, 2011, slip op. at 51-52. Clearwater has failed to show that these arguments have any bearing on the safety analysis of aging management that is required for license renewal.

Further, the Commission is not required to make any findings regarding the safety of long-term storage in deciding whether to grant or deny a renewed license. The Commission's safety requirements for license renewal are established in 10 C.F.R. Part 54; under those regulations, a license renewal application need only address safety during the period of extended operation ("PEO"), not beyond. *See e.g.* 10 C.F.R. § 54.21(a)(3) (requiring the application to "demonstrate that the effects of aging will be adequately managed so that the

[12] "Entergy Nuclear Operations, Inc., Indian Point Nuclear Generating Unit Nos. 2 and 3; Notice of Acceptance for Docketing of the Application and Notice of Opportunity for Hearing Regarding Renewal of Facility Operating License Nos. DPR-26 and DPR-64 for an Additional 20-Year Period," 72 Fed. Reg. 42,134 (Aug. 1, 2007).

intended function(s) will be maintained consistent with the CLB for the period of extended operation" (emphasis added). Clearwater's arguments to the contrary should be rejected.

In sum, Contention CW-SC-4 does not meet admissibility standards because Clearwater has not shown that the omission of information "beyond" the PEO is within the scope of the proceeding, material to the finding the NRC must make, or that Clearwater has identified any omission of information from the LRA on a relevant matter as required by law. *See* 10 C.F.R. § 2.309(f)(1)(iii) (scope), (iv) (materiality), and (vi) (omission of required information); *see also* Memorandum and Order of July 6, 2011, at 51-52.

3. Clearwater's Claims Regarding the Staff's Performance Are Inadmissible

In Contention SW-SC-4, Clearwater asserts, in part, that "the NRC Staff [has] failed to establish that any combination of such storage will provide adequate protection of safety over the long term." Motion at 8. Clearwater further asserts that "either the applicant or the Staff must now examine the future dangers of spent fuel storage for an indefinite period on-site"), *id. id.* at 10; and that the NRC must perform additional safety reviews, *id.* at 11-12.

These assertions fail to state an admissible contention, because they incorrectly shift the focus of the hearing to the Staff's performance instead of the sufficiency of the Applicant's LRA. The Commission has stated that "the focus of a hearing on a proposed licensing action is the adequacy of the application to support the licensing action, not the nature of the NRC Staff's review." *Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station)*, CLI-08-17, 68 NRC 231, 237 (2008), *citing Pa'ina Hawaii, LLC*, CLI-08-3, 67 NRC 151, 168 n.73 (2008). . *Accord, Turkey Point*, CLI-01-17, 54 NRC at 24 (the license renewal application, not the Staff's review, is at issue in NRC adjudications); *cf.* 10 C.F.R. § 2.309(f)(1)(vi) (a petitioner must include references to specific portions of the application that it disputes). Thus, Contention CW-SC-4 is inadmissible, insofar as it asserts that the Staff has failed to perform its duties.

4. Clearwater's Contention Impermissibly Challenges Existing Regulations

Clearwater's claims regarding the need to evaluate the safety of long-term on-site storage of spent fuel impermissibly challenges the Commission's existing regulatory framework and regulations, by demanding that information be submitted as part of license renewal that is explicitly controlled by non-license renewal regulations in 10 C.F.R. Part 50.

Under 10 C.F.R. § 50.54(bb), a licensee must submit for NRC review and preliminary approval its program for management of all irradiated fuel at the reactor during the period following permanent cessation of operations until the Secretary of Energy takes possession of the fuel for ultimate disposal in a repository. In promulgating 10 C.F.R. § 50.54(bb), the Commission stated that, while no specific actions were required, the licensees' actions could include continued storage of spent fuel in the reactor spent fuel storage basin, storage in an on-site or off-site independent spent fuel storage installation licensed under 10 C.F.R. Part 72; and transshipment to and storage of the fuel at another operating reactor site in another reactor's basin. 49 Fed. Reg. at 34,689.

To this end, on October 23, 2008, Entergy submitted, information concerning spent fuel storage, in accordance with 10 C.F.R. § 50.54(bb), under its current Part 50 operating licenses.[13] The NRC Staff has reviewed Entergy's submittals, as part of its regulatory oversight of Indian Point's current operating licenses under 10 C.F.R. Part 50. Contrary to Clearwater's assertions, this information is required by Part 50 regulations governing the current operating licenses, and is not required to be contained in a licensee's application for license renewal.

[13] *See* (1) Letter from J. E. Pollock to NRC, Subject "Unit 1 & 2 Program for Maintenance of Irradiated Fuel and Preliminary Decommissioning Cost Analysis in accordance with 10 CFR 50.54(bb) and 10 CFR 50.75(f)(3)" (NL-08-144) (Oct. 23, 2008) (Exhibit ENT000141); and (2) Letter from J. E. Pollock to NRC, Subject "Unit 3 Program for Maintenance of Irradiated Fuel and Preliminary Decommissioning Cost Analysis in accordance with 10 CFR 50.54(bb) and 10 CFR 50.75(f)(3)" (NL-10-123) (Dec. 10, 2010) (Exhibit ENT000142).

Accordingly, Clearwater's contention a showing of safe fuel management must be provided in a license renewal application lacks regulatory basis and impermissibly challenges the Commission's existing regulatory framework and regulations. *See* 56 Fed. Reg. at 64,968-6; 10 C.F.R. § 2.335.

B. Clearwater Misreads the Decision in *New York v. NRC,* with respect to the AEA

In its new contention, Clearwater asserts that either the Applicant or the NRC needs to research safety issues of indefinite waste storage in order to comply with the AEA. Motion at 10-12. These arguments are not supported by the court's decision in *New York v. NRC* or other legal authority. Indeed, in making this argument, Clearwater "reads too much into the AEA." *Natural Resources Defense Council, Inc. v.NRC,* 582 F.2d 166, 171 (2d. Cir. 1978) (declining to withhold pending licenses until an affirmative determination on permanent disposal of high-level waste is made, finding no such requirement in the AEA).

Clearwater cites a statement by the Staff, in a pleading filed by the Staff in other proceedings, in which the Staff opined that no final decision to grant a combined license ("COL") operating license, or renewed operating license "should be made" in the captioned proceedings until the NRC has appropriately dispositioned the issues remanded by the court.[14] Based on this statement, Clearwater asserts "[t]hus, the safety of indefinite storage of spent fuel on-site must be resolved," before the Indian Point Units 2 and 3 licenses can be renewed. Contention at 10 (emphasis added). There is no basis for this assertion, nor is this assertion supported by any statement in the Staff brief which Clearwater cites in its support. Moreover, Clearwater fails to recognize that the issues remanded by the court, to which the Staff had referred, are

[14] Motion at 9-10, *citing* NRC Staff's Answer to Petition to Suspend Final Decisions in All Pending Reactor Licensing Proceedings Pending Completion of Remanded Waste Confidence Proceedings, at 4 (June 25, 2012) (ADAMS Accession No. ML12177A139).

environmental issues, not license renewal safety findings that address only the period of extended operations.

In addition, Clearwater cites *Minnesota v. NRC* to support the proposition that the NRC must analyze indefinite storage of waste on-site at Indian Point. Motion at 10-11. In doing so, however, Clearwater fails to realize that the regulatory schemes that was subsequently enacted partially in response to *Minnesota v. NRC,* added 10 C.F.R. § 50.54(bb), to require reactor licensees to submit written notification to the Commission describing the licensee's program for post-operational management of all irradiated fuel which is at the reactor at the time the license expire pending ultimate disposal of the irradiated fuel in a repository spent fuel. 49 Fed. Reg. at 34,690. As explained above, spent fuel management issues may involve future amendments or licenses, but they simply are not part of a license renewal decision. 56 Fed. Reg. at 64,968 (determining that even though a plant may be seeking a renewed license, it still must plan for decommissioning); 10 C.F.R. § 50.54(bb) ("Final Commission review will be undertaken as part of any proceeding for continued licensing under part 50 or part 72").

C. Clearwater Insufficiently Supports its Contention CW-SC-4

Clearwater lists examples of issues that it says are unaddressed by site-specific and generic analysis, *i.e.,* 1) the applicant relies on a one-time, 40% inspection of the fuel pool liner; 2) concrete at another site is degraded; 3) the applicant's proposals for Boraflex degradation are inadequate; 4) the potential for leaks will increase with time; and 5) long-term wet storage of fuel does not meet NRC requirements and is vulnerable to terrorism. Motion at 12-14. But, as explained below, none of Clearwater's arguments support admission of Contention CW-SC-4.

1. Past Inspection of the Unit 2 Fuel Pool Liner Does Not Show that the LRA Is Deficient

Clearwater observes that the licensee performed a one-time inspection of 40% of the spent fuel pool liner; it fails to explain, however, why this past inspection somehow now makes

the LRA insufficient. *See* Motion at 12. Further, while Clearwater references the prefiled testimony regarding Riverkeeper and Clearwater's Consolidated Environmental Contention RK-EC-3/ CW-EC-1, it likewise does not explain how any particular AMP is inadequate to assure safety.[15] Further Clearwater fails to relate its 40% quote to any claimed deficiency in any AMP discussed in the same paragraph, and it therefore fails to support Contention CW-SC-4 through this observation. Thus, this portion of the contention is inadmissible. *See Turkey Point*, CLI-01-17, 54 NRC at 23. Moreover, these issues have absolutely no relation to the court's decision in *New York v. NRC*, and cannot support a new contention at this time.

2. Clearwater's Reference to Freeze and Thaw Damage at a Facility in Idaho Does Not Support the Admission of Contention CW-SC-4

Clearwater lists several previously-available reports showing that degradation has occurred elsewhere, but it again does not explain why or how these documents show that Entergy's LRA is deficient, or how they can timely support a new contention. *See* Motion 12-13. To support its position that concrete can age, Clearwater cites an NRC Inspection Report, involving a routine inspection of the spent fuel storage activities at the Three Mile Island Unit 2 (TMI-2) Independent Spent Fuel Storage Installation (ISFSI) operated by the U.S. Department of Energy in Idaho. *Id*. at 13. However, as recognized by Clearwater, the issues described in the TMI-2 ISFSI Inspection Report related to "the annual freezing and thawing cycle at the site." *Id.* Clearwater does not explain how this observation of freeze damage at a fuel storage facility in Idaho relates to any inadequacy in Entergy's LRA, as is asserted in Contention CW-SC-4.

[15] See Motion at 12, *citing* Prefiled Direct Testimony Of Arnold Gundersen Regarding Consolidated Contention RK-EC-3/CW-EC-1 (Spent Fuel Pool Leaks), at 7 (RIV000060) (quoting NUREG-1930, Safety Evaluation Report Related to the License Renewal of Indian Point Nuclear Generating Unit Nos. 2 and 3 ("SER"), at 3-134 (November 2009). In this regard, the testimony cited by Clearwater quotes only a portion of the Staff's SER; the SER provides additional information and, following a detailed evaluation, the Staff found the related Structures Monitoring Program to be adequate. See SER (Exhibit NYS00326A-F) at 3-140.

Thus, even if it had been timely presented, this portion of the contention fails to provide an admissible basis for the contention. See *Turkey Point*, CLI-01-17, 54 NRC at 23. Further the court's decision in *New York v. NRC* provides no support for the admission of this issue.

3. Long-Term Degradation of Boraflex is Beyond the Scope of this Proceeding

Clearwater asserts that the LRA is inadequate to manage Boraflex or other fuel wrapping "during the long term." Motion at 13 (citing Expert Witness Declaration of Arnold Gundersen Regarding Aging Management of Nuclear Fuel Racks, at ¶¶ 15-37 (Feb. 25, 2011). However, examination of the Gundersen Declaration shows that his concerns relate to periods outside of the period of extended operation. *See id*. at ¶ 27 (asserting that the AMPs cited by Entergy are inapplicable because Entergy only reviewed the period of extended operation and not "the complete operational history"; *id.* at ¶ 33 (stating fuel may remain in pools long after AMPs have ended)). Further, it appears that Mr. Gundersen rejects monitoring as a permissible AMP, but fails to explain why monitoring (which is a fundamental part of detecting any aging effect) is insufficient. *Id.* at ¶¶ 25-26.

Indeed, Mr. Gundersen fails to discuss and dispute the LRA, and instead he takes issue with the current licensing basis for the IP2 and IP3, which is beyond the scope of a license renewal proceeding, by claiming that fuel racks are *currently* inadequately analyzed. *See id.* at ¶ 20 ("Indian Point's boroflex has indeed become degraded. ... the k-effective for new fuel stored on spent fuel racks in the spent fuel pool, the worst-case conditions in the scenario quoted above have not been adequately analyzed even if the Boroflex had retained its integrity."). Such challenges to the current licensing basis are beyond the scope of a license renewal review. 10 C.F.R. § 54.30.

In sum, even if these issues had been timely raised, Clearwater provides no support for the admission of a Boraflex degradation issue as part of Contention CW-SC-4. *See Turkey*

Point, CLI-01-17, 54 NRC at 23. Moreover, the court's decision in *New York v. NRC* affords no support for the admission of this issue.

4. Assertions that Conditions Will Worsen Do Not Support CW-SC-4

Next, Clearwater claims that leaks will get worse over the long term. *See* Motion at 14 (citing documents that have been available since 2008). Again, Clearwater fails to point to any inadequacies in the LRA, and it fails to explain why these assertions should be regarded as timely. Moreover, Clearwater gives no indication of which AMPs should be regarded as inadequate. Thus, Clearwater's reference to these materials and its assertions regarding this matter do not support admission of this portion of the contention. *See Turkey Point*, CLI-01-17, 54 NRC at 23. Nor is the admission of this issue supported by the court's decision in *New York v. NRC*.

4. Concerns over the Safety of Spent Fuel Pool Storage versus Dry Cask Storage Are Beyond the Scope of this Proceeding

Finally, Clearwater asserts that long-term wet storage of spent fuel does not meet NRC requirements and is vulnerable to terrorism, and that dry casks should be used. Motion at ¶ 14. Again, by failing to address the contents of the LRA and the requirements of 10 C.F.R. Part 54, Clearwater has not provided any support for the admission of Contention CW-SC-4. Further, the concerns expressed by Clearwater raise safety issues that would pertain to the current operating licenses as well as any renewed licenses and are therefore immaterial to this proceeding, which is limited to consideration of the license renewal issues (management of aging) aging addressed in 10 C.F.R. Part 54. Challenges to the use of wet or dry storage are not material to the license renewal decision the Commission must make under the regulations in 10 C.F.R. Part 54.

Likewise, Clearwater's discussion of spent fuel water losses and the NRC's enforcement of the current licensing bases at other plants (Motion at 14-15), are not material to the

Commission's consideration of the Indian point LRA, and are not timely. Further, Clearwater does not relate these past actions to the contents of Entergy's LRA for Indian Point Units 2 and 3. Thus, this issue does not support the admission of Contention CW-SC-4. *See Turkey Point*, CLI-01-17, 54 NRC at 23. Further, like the other issues discussed above, the admission of this issue is neither timely nor supported by the court's decision in *New York v. NRC*.

CONCLUSION

The Court of Appeals' decision in *New York v. NRC* does not support the admission of this contention. For this reason, and the additional discussed above, Clearwater's request for the admission of Contention CW-SC-4 should be denied.

Respectfully submitted,

/Signed (electronically) by/

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Dated at Rockville, Maryland
this 3rd day of August, 2012

Answer Certification

Pursuant to the Board's Order of July 1, 2010, I certify that I have made a sincere effort to make myself available to listen and respond to the moving party, and to resolve the factual and legal issues raised in the motion, and that my efforts to resolve the issues have been unsuccessful.

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Dated at Rockville, Maryland
this 3rd day of August, 2012

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
	)	
ENTERGY NUCLEAR OPERATIONS, INC.	)	Docket Nos. 50-247/286-LR
	)	
(Indian Point Nuclear Generating Units 2 and 3)	)	

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing "NRC STAFF'S ANSWER TO "HUDSON RIVER SLOOP CLEARWATER, INC.'S MOTION FOR LEAVE TO ADD A NEW CONTENTION BASED UPON NEW INFORMATION AND PETITION TO ADD NEW CONTENTION" (CONTENTION CW-SC-4 (SAFETY OF LONG-TERM STORAGE))," dated August 3, 2012, in the above-captioned proceeding have been served on the following by Electronic Information Exchange this 3rd day of August, 2012.

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