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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	Docket Nos. 50-247-LR and 50-286-LR
ENTERGY NUCLEAR OPERATIONS, INC.	)	
(Indian Point Nuclear Generating Units 2 and 3)	)	February 18, 2011

APPLICANT'S ANSWER TO PROPOSED AMENDED CONTENTION NEW YORK STATE 17B AND THE ASSOCIATED REQUEST FOR EXEMPTION AND/OR WAIVER OF 10 C.F.R. § 51.23(b)

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TEMPLATE = SECY-037

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I. INTRODUCTION

Pursuant to 10 C.F.R. §§ 2.309(h)(1) and 2.335(b), and the Board's February 1 and February 17, 2011 Orders,[1] Entergy Nuclear Operations, Inc. ("Entergy") submits this timely Answer to the Proposed Amended Contention filed by New York State ("New York" or the "State") on January 24, 2011 ("NYS-17B")[2] and an associated Waiver Request.[3] Based on the claim that the Commission's recent amendment to the Waste Confidence Rule[4] provides new and materially different information regarding the expected date of spent fuel removal from Indian

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1 Licensing Board Order (Extending Page Limits and Establishing Deadline for Filing Responses to Waiver Petition) (Feb. 1, 2011) (unpublished); Licensing Board Order (Extending Page Limitations for Pleadings as They Apply to Answers to Clearwater's and Riverkeeper's January 24, 2011, Joint Motion,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). (Feb. 17, 2011) (unpublished).

2 *See* State of New York's Motion for Leave to File Timely Amended Bases to Contention 17A (Now to Be Designated Contention 17B) (Jan. 24, 2011) ("Motion for Leave"); State of New York Contention 17B (Jan. 24, 2011) ("Contention 17B"). These documents currently are not yet publicly available on ADAMS.

3 *See* State of New York's Request for a Determination that The Proposed Amended Bases for Contention 17A Are Not Barred by 10 C.F.R. § 51.23(b), or that Exemption from the Requirements of 10 C.F.R. § 51.23(b) Should Be Granted, or that the State has Made a Prima Facie Case that § 51.23(b) Should be Waived As Applied to Contention 17B (Jan. 24, 2011) ("Waiver Request"). New York also filed the Declaration of AAG John J. Sipos, dated January 24, 2010 ("Sipos Declaration"), which, in turn, provides 16 attachments including Attachment 15, the Report of Dr. Stephen C. Sheppard (Jan. 24, 2011) ("2011 Sheppard Declaration"). These documents currently are not yet publicly available on ADAMS.

4 *See* Waste Confidence Decision Update, 75 Fed. Reg. 81,037 (Dec. 23, 2010) ("2010 Waste Confidence Decision"); Final Rule, Consideration of Environmental Impacts of Temporary Storage of Spent Fuel After Cessation of Reactor Operation, 75 Fed. Reg. 81,032 (Dec. 23, 2010) ("Temporary Storage Rule").

Point Unit 2 and Unit 3 ("IP2" and "IP3," collectively Indian Point Energy Center "IPEC" or "Indian Point"), New York's proposed amended contention seeks to add two new bases to the already-admitted NYS-17/17A.[5] First, New York claims that off-site land use environmental impacts (such as property values) are not addressed by the NRC's recently-amended Waste Confidence Rule or, in the alternative, that the rule should not be applied in this proceeding, either through an exemption or waiver.[6] Second, New York seeks to update its challenge to the NRC's analysis of off-site land use environmental impacts in the Final Supplemental Environmental Impact Statement ("FSEIS") for IPEC.[7]

As set forth below, Entergy opposes admission of NYS-17B insofar as it raises issues that are untimely,[8] outside the scope of this proceeding, immaterial, unsupported, or fail to raise a genuine dispute on a material issue of law or fact. Further, Entergy opposes New York's Waiver Request because, contrary to New York's argument, the exemption provision in 10 C.F.R. § 51.6 does not apply to these circumstances and because New York fails to make the required *prima facie* showing under the applicable waiver provisions in 10 C.F.R. § 2.335.

In general, contrary to New York's assertions, the amended Waste Confidence Rule does not present any new or materially different information regarding spent fuel storage or removal—particularly on a site-specific basis—that supports admission of an amended contention and waiver request in this proceeding. Furthermore, NYS-17B obscures long-

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5 *See* Motion for Leave at 2 ("This change in § 51.23 (new) means that it cannot be assumed that spent fuel generated at Indian Point will be gone by 2025 . . . .").

6 *See generally* Waiver Request.

7 *See* Contention 17B at 2-5 (*citing* NUREG-1437, Supp. 38, Generic Environmental Impacts Statement for License Renewal of Nuclear Plants, Regarding Indian Point Nuclear Generating Unit Nos. 2 & 3 (Dec. 2010) ("FSEIS"), *available at ADAMS* Accession No. ML103350405).

8 New York also submitted a 23-page "Answer in Support of the Admission of Clearwater and Riverkeeper's Proposed Waste Confidence Contentions" (Feb. 10, 2011) ("New York Answer"). This document is not yet publicly available on ADAMS. To the extent the New York Answer seeks to supplement or bolster the arguments in Contention 17B or the Waiver Petition, the New York Answer is untimely, unauthorized, and inappropriate, and its claims are not addressed in this Answer.

established, well-defined, legal and regulatory distinctions between (a) the outcome of this proceeding under 10 C.F.R. Part 54, (b) NRC's separate review of Entergy's decommissioning plan under 10 C.F.R. § 50.82, and (c) the timing of future spent fuel removal by the U.S. Department of Energy ("DOE"), pursuant to the Nuclear Waste Policy Act of 1982, as amended, 42 U.S.C. § 10101 *et seq.* ("NWPA"). As a result, New York's proposed amended contention and Waiver Request repeatedly detour into topics outside the scope of this proceeding, fail to adequately support the purportedly "new" aspects of the contention, and fail to make the requisite *prima facie* case for waiver under 10 C.F.R. § 2.335.

II. BACKGROUND

A. Procedural History

A more detailed background on the submission and admission of NYS-17 and NYS-17A appears in Entergy's Motion for Summary Disposition of New York State Contention 17/17A.[9] Briefly, NYS-17 alleged that Entergy's Environmental Report ("ER") ignored the alleged positive impacts on land use and land values that would result from the denial of Entergy's license renewal application ("LRA") for IPEC. The Board admitted the contention as one of omission alleging that "[i]n conducting its analysis of the impact of license renewal on land-use, Entergy should have considered the impact of license renewal on real estate values."[10] After the NRC Staff issued the Draft Supplemental Environmental Impact Statement ("DSEIS") in December 2008, New York submitted NYS-17A, alleging that the DSEIS similarly ignored the

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9 *See* Entergy Nuclear Operations, Inc. Motion for Summary Disposition of New York State Contention 17/17-A (Property Values) (Feb. 26, 2010) ("Motion for Summary Disposition of NYS-17/17A"), *available at* ADAMS Accession No. ML101100474.

10 *Entergy Nuclear Operations, Inc.* (Indian Point Nuclear Generating Units 2 & 3), LBP-08-13, 68 NRC 43, 116 (2008).

supposed positive impact on property values flowing from the no-action alternative (*i.e.*, denial of the IPEC LRA).[11] The Board admitted NYS-17A and consolidated it with NYS-17.[12]

Entergy moved for summary disposition of NYS-17/17A on February 26, 2010, because, among other arguments, consideration of alleged financial impacts is not required under NEPA if the impacts are not related to physical environmental effects, and the contention was nevertheless rendered moot by the DSEIS.[13] The Board denied summary disposition, but in its Order, agreed with Entergy that NEPA "contentions relating to on-site spent fuel storage are outside the scope of this proceeding due to the Waste Confidence Rule (codified as 10 C.F.R. § 51.23) . . . ."[14]

On December 3, 2010, the NRC Staff issued the FSEIS in this proceeding. The Board later set a deadline of February 3, 2011, for timely new or amended contentions that are properly based on significant new data or conclusions in the FSEIS.[15] Also, in December 2010, the Commission promulgated the updated Waste Confidence Rule[16] and amended 10 C.F.R. § 51.23.[17]

On January 24, 2011, New York proffered amended contention NYS-17B.[18] New York asserts that its contention is timely because it was raised within 30 days of the publication of the

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11 *See* State of New York Contentions Concerning NRC Staff's Draft Supplemental Environmental Impact Statement at 15 (Feb. 27, 2009), *available at* ADAMS Accession No. ML090690303. In the same filing, New York also claimed that the DSEIS failed to account for the Commission's 2008 decision to update the Waste Confidence Rule, which allegedly removed the expectation that a repository would be available by 2025. *See id.* at 38-41 (discussing Contention NYS-34).

12 Licensing Board Order (Ruling on New York State's New and Amended Contentions) at 8 (June 16, 2009) (unpublished).

13 *See* Motion for Summary Disposition of NYS-17/17A at 2.

14 *See* Licensing Board Memorandum and Order (Denying Entergy's Motion for the Summary Disposition of NYS Contention 17/17A) at 13 (Apr. 22, 2010) (unpublished) ("Apr. 22, 2010 Order").

15 Licensing Board Order (Granting Intervenor's Unopposed Joint Motion for an Extension of Time) at 2 (Dec. 27, 2010) (unpublished).

16 2010 Waste Confidence Decision, 75 Fed. Reg. at 81,037.

17 Temporary Storage Rule, 75 Fed. Reg. at 81,032, the purpose and content of which are addressed further in Section II.B, below.

18 *See generally* Motion for Leave; Contention 17B; Waiver Request.

amended Waste Confidence Rule in the *Federal Register*.[19] The amended contention includes a series of new bases,[20] and presents three alternative arguments. First, New York asserts that—contrary to its plain text—10 C.F.R. § 51.23(b) should not bar consideration of the environmental impacts of spent fuel storage at IPEC in this proceeding. Second, alternatively, New York claims that it should be granted an "exemption" under the Board's purported, but never-before-recognized or exercised, authority under 10 C.F.R. § 51.6. Third, if an exemption is not warranted, then New York argues that the Board should certify to the Commission its request to waive Section 51.23(b).[21]

New York's amended contention also seeks to apply its already-admitted contention to the FSEIS.[22] In doing so, however, New York raises a variety of issues—some new and some previously-raised—that are outside the scope of this proceeding even if the Waste Confidence Rule is waived in this proceeding. As explained further below, these issues include purported disputes over the duration of decommissioning activities after the cessation of operations,[23] the environmental impacts of spent fuel storage at the IPEC Independent Spent Fuel Storage Installation ("ISFSI"),[24] and the environmental impacts of the incremental increase in spent fuel generation that would result from license renewal.[25]

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19 *See* Motion for Leave at 3.

20 *See* Contention 17B at 6-9.

21 *See generally* Waiver Request.

22 *See* Contention 17B at 2-5.

23 *See, e.g., id.* at 5 (stating FSEIS "has no analysis of the substantial adverse impacts . . . . if Indian Point remains as an abandoned nuclear power plant for as much as 60 years (the outer limit of SAFSTOR) after shutdown"); *id.* at 8 (claiming similar facts and suggesting that the FSEIS should consider whether the SAFSTOR option should be "rejected").

24 *See, e.g., id.* at 4, 10-11, 13-14 (referring to the impacts of dry cask storage).

25 *See, e.g., id.* at 4, 13-14 (referring to the spent fuel generated during the term of the renewed license).

B. The Waste Confidence Rulemaking and the Status of Efforts to Remove Spent Nuclear Fuel from Reactor Sites

The general history of the Waste Confidence Rule has been recited by both the Board and Commission in response to several prior proposed contentions and related documents in this proceeding.[26] Most importantly, the Commission has plainly stated that, "'[i]n the area of waste storage, the Commission largely has chosen to proceed generically' through the rulemaking process – that is, the Waste Confidence Rule, codified at 10 C.F.R. § 51.23 – instead of litigating issues case-by-case in adjudicatory proceedings."[27] Thus, "challenges to the Waste Confidence Rule *must* be made in the context of a rulemaking, not in the context of an adjudicative proceeding."[28]

In 2008, the Commission proposed to update the Waste Confidence Rule to "confirm the Commission's confidence that spent fuel storage is safe and secure over long periods of time."[29] This review led to certain revisions in 2010 to the Commission's waste confidence "Findings" (*i.e.*, the conclusions that support the Waste Confidence Rule).[30] Specifically, the Commission revised its second Waste Confidence Finding from a conclusion that there is reasonable assurance that a repository with sufficient capacity will be available within the first quarter of the twenty-first century to a conclusion that sufficient repository capacity will be available *when necessary*.[31]

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26 *See, e.g.*, Licensing Board 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 Admit New Contentions) at 18-22 (Feb. 12, 2010) (unpublished).

27 *Entergy Nuclear Operations, Inc.* (Indian Point Nuclear Generating Units 2 & 3), CLI-10-19, slip op. at 2 (July 8, 2010) (*quoting Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, & 3), CLI-99-11, 49 NRC 328, 343 (1999)).

28 *Id.* (emphasis added).

29 Proposed Rule, Consideration of Environmental Impacts of Temporary Storage of Spent Fuel After Cessation of Reactor Operation, 73 Fed. Reg. 59,547, 59,549 (Oct. 9, 2008). *See also* Waste Confidence Decision Update; Update and Proposed Revision of Waste Confidence Decision, 73 Fed. Reg. 59,551 (Oct. 9, 2008).

30 *See* 2010 Waste Confidence Decision, 75 Fed. Reg. at 81,038.

31 *See id.* at 81,038-39.

The target date for repository availability was removed from this finding because "recent events have demonstrated that the Commission is unable to predict with confidence when a successful program to construct a repository will start."[32] This is because, although the Commission has confidence that spent fuel can be safely stored without significant environmental impacts for long periods, there are issues beyond the Commission's control, including political and societal challenges that make it premature to predict a precise date for repository availability.[33] In 2010 the Commission also revised its fourth Waste Confidence Finding from one that spent fuel can be safely stored for 30 years beyond a reactor's licensed life for operation, to one that concludes that spent fuel can be safely stored for *at least 60 years* beyond licensed operation, including the term of a renewed license.[34] Consistent with these findings, the Commission revised 10 C.F.R. § 51.23(a) regarding the environmental impacts of spent fuel storage to provide as follows:

> The Commission has made a generic determination that, if necessary, spent fuel generated in any reactor can be stored *safely and without significant environmental impacts for at least 60 years* beyond the licensed life for operation (which may *include the term of a revised or renewed license*) of that reactor in a combination of storage in its spent fuel storage basin and at either onsite or offsite independent spent fuel storage installations. Further, the Commission believes there is reasonable assurance that *sufficient mined geologic repository capacity will be available* to dispose of the commercial high-level waste and spent fuel generated in any reactor *when necessary*.[35]

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32 *Id.* at 81,048.

33 *See id.* at 81,042.

34 *See id.* at 81,038.

35 10 C.F.R. § 51.23(a) (emphasis added). *See also* 2010 Waste Confidence Decision, 75 Fed. Reg. at 81,038.

Finally, the Commission directed the NRC Staff to further develop a plan for a rulemaking and an Environmental Impact Statement ("EIS") to assess the environmental impacts and safety of long-term waste storage, beyond 120 years.[36]

Importantly, and contrary to NYS-17B, the Waste Confidence Rule does not—and cannot—establish the schedule for the removal of spent nuclear fuel from any reactor site, including IPEC. Under the NWPA, the federal government, through DOE, remains solely responsible for siting and building a repository.[37] Neither the Board nor the Commission has the statutory authority to take such actions or to establish when the fuel will be removed from any site. The Commission itself recognizes that the schedule for such activities is influenced by many "issues beyond the Commission's control, including the political and societal challenges of siting a [high-level waste] repository, that make it premature to predict a precise date or time frame when a repository will become available."[38] Thus, Section 51.23, as amended, simply reflects the current, but not new, reality; *i.e.*, uncertainty regarding the timing of the availability of a geologic repository for spent nuclear fuel and high-level waste.[39] In short, contrary to New York's assertions, in amending Section 51.23 the Commission did not "abolish[] the date certain by which a high level waste repository would be available . . . ."[40]

The effect of the amended rule, however, is to continue the Commission's long-standing generic treatment via rulemaking which precludes litigation of such issues in individual licensing

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36 2010 Waste Confidence Decision, 75 Fed. Reg. at 81,040.

37 *See id.* at 81,049.

38 *Id.* at 81,042.

39 *See id.* at 81,040.

40 Contention 17B at 6.

proceedings.[41] Relying now on the Commission's 2010 Waste Confidence Decision, 10 C.F.R. § 51.23(b) remains unchanged, and continues to state that:

> [N]o discussion of *any environmental impact* of spent fuel storage in reactor facility storage pools or independent spent fuel storage installations (ISFSI) for the period following the term of the reactor operating license . . . for which application is made, is required in any environmental report, environmental impact statement, . . . or other analysis prepared in connection with the issuance . . . of an operating license for a nuclear power reactor under parts 50 and 54 of this chapter . . . .[42]

Thus, 10 C.F.R. § 51.23(b) unambiguously applies to "any environmental impact." Furthermore, 10 C.F.R. § 51.95(c)(2) provides that "the supplemental environmental impact statement prepared at the license renewal stage need not discuss . . . any aspect of the storage of spent fuel for the facility within the scope of the generic determination in § 51.23(a) and in accordance with § 51.23(b)." Thus, all environmental impacts of spent fuel storage following the license renewal period have been and continue to be outside the scope of this proceeding.[43]

III. LEGAL STANDARDS

A. Legal Standards Governing Admission of New and Amended Contentions

An intervenor may file new environmental contentions "if there are data or conclusions in the NRC draft or final environmental impact statement, environmental assessment, or any supplements relating thereto, that differ significantly from the data or conclusions in the

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41 *See Indian Point*, CLI-10-19, slip op. at 2-3.

42 Emphasis added.

43 *See, e.g., Indian Point*, CLI-10-19, slip op.; *Oconee*, CLI-99-11, 49 NRC at 343-46; *Entergy Nuclear Vt. Yankee, LLC & Entergy Nuclear Operations, Inc.* (Vt. Yankee Nuclear Power Station), LBP-06-20, 64 NRC 131, 170 (2006). Separately, on February 15, 2011, the State of New York, along with the States of Vermont and Connecticut, filed a Petition for Judicial Review of the 2010 Waste Confidence Decision and the Temporary Storage Rule in the U.S. Court of Appeals for the District of Columbia Circuit. *See* Petition for Judicial Review of Administrative Agency Action, *New York, et al. v. NRC*, No. 11-1045 (D.C. Cir. filed Feb. 15, 2011) (Entergy Contention NYS-17B Att. 1). The Waste Confidence Rule, as amended, remains binding in this proceeding while New York's lawsuit is pending. *See Dominion Nuclear N. Anna, LLC* (Early Site Permit for North Anna ESP Site), CLI-04-8, 59 NRC 113, 119 (2004) (permitting the use of new procedural rules in adjudicatory proceedings because, "notwithstanding the pendency of a legal challenge to the New Rules [in the Court of Appeals], we have no expectation of being required to withdraw them").

applicant's documents."[44] Absent such circumstances, an intervenor may file new contentions only with leave of the presiding officer upon a showing that the new or amended contention is based on information that was not previously available and is materially different than information previously available.[45] The Commission very recently reiterated that the publication of a new document, standing alone, does not meet this standard unless the information in that document is new and materially different from what was previously available.[46] Furthermore, the Petitioner must act promptly to bring the new or amended contention.[47] A new contention is not an occasion to raise additional arguments that could have been raised previously.[48]

If an intervenor cannot satisfy the criteria of 10 C.F.R. § 2.309(f)(2), then a contention is considered nontimely, and the intervenor must successfully address the late-filing criteria in Section 2.309(c)(1)(i)-(viii).[49] The first factor identified in that regulation, whether "good cause" exists for the failure to file on time, is entitled to the most weight.[50] Without good cause, a "petitioner's demonstration on the other factors must be particularly strong."[51]

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44 10 C.F.R. § 2.309(f)(2).

45 *See id.* § 2.309(f)(2)(i)-(iii).

46 *See, e.g., N. States Power Co.* (Prairie Island Nuclear Generating Plant, Units 1 & 2), CLI-10-27, slip op. at 13-18 (Sept. 30, 2010).

47 *See Entergy Nuclear Vt. Yankee, LLC* (Vt. Yankee Nuclear Power Station), LBP-06-14, 63 NRC 568, 573, 579-80 (2006) (rejecting petitioner's attempt to "stretch the timeliness clock" because its new contentions were based on information that was previously available and petitioners failed to identify precisely what information was "new" and "different").

48 *Duke Energy Corp.* (McGuire Nuclear Station, Units 1 & 2; Catawba Nuclear Station, Units 1 & 2), CLI-02-28, 56 NRC 373, 385-86 (2002). This Board has emphasized that that it "will not entertain contentions based on environmental issues that could have been raised when the original contentions were filed." Licensing Board Memorandum and Order (Summarizing Pre-Hearing Conference) at 3 (Feb. 4, 2009) (unpublished) ("Pre-Hearing Conference Order").

49 *See* Licensing Board Scheduling Order at 5-6 (July 1, 2010) (unpublished); 10 C.F.R. § 2.309(c)(2) ("The requestor/petitioner shall address the factors in paragraphs (c)(1)(i) through (c)(1)(viii) of this section in its nontimely filing.").

50 *See New Jersey* (Dep't of Law & Pub. Safety's Requests Dated Oct. 8, 1993), CLI-93-25, 38 NRC 289, 296 (1993).

51 *Tex. Utils. Elec. Co.* (Comanche Peak Steam Elec. Station, Units 1 & 2), CLI-92-12, 36 NRC 62, 73 (1992) (*quoting Duke Power Co.* (Perkins Nuclear Station, Units 1, 2 & 3), ALAB-431, 6 NRC 460, 462 (1977)).

A proposed contention also "must satisfy, without exception, each of the criteria set out in 10 C.F.R. § 2.309(f)(1)(i) through (vi)."[52] Failure to meet each of the criteria is grounds for dismissal of a proposed new or amended contention.[53] Among other things, the petitioner must demonstrate that the issue raised in the contention is within the scope of the proceeding, is *material* to the findings the NRC must make to support the action that is involved in the proceeding, and provide sufficient information to show that a genuine dispute exists with the applicant/licensee on a *material* issue of law or fact.[54] A dispute is material if its resolution would make a difference in the outcome of the licensing proceeding.[55]

Additionally, the Commission has long held that a petitioner may not use an adjudicatory proceeding to attack generic rules or regulations.[56] Thus, a licensing proceeding is plainly not the proper forum for an attack on applicable statutory requirements or for challenges to the basic structure of the Commission's regulatory process.[57] A contention that collaterally attacks an NRC rule or regulation is not appropriate for litigation and must be rejected.[58] Similarly, licensing boards should not accept in individual license proceedings contentions which are (or are about to become) the subject of a rulemaking by the Commission.[59]

Environmental contentions in license renewal proceedings also cannot challenge the generic conclusions of NUREG-1437, "Generic Environmental Impact Statement ["GEIS"] for

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52 *S.C. Elec. & Gas Co.* (Virgil C. Summer Nuclear Station, Units 2 & 3), LBP-10-06, slip op. at 3 (Mar. 17, 2010).

53 *See* Changes to Adjudicatory Process, 69 Fed. Reg. 2182, 2221 (Jan. 14, 2004). *See also Private Fuel Storage, L.L.C.* (Indep. Spent Fuel Storage Installation), CLI-99-10, 49 NRC 318, 325 (1999).

54 *See* 10 C.F.R. § 2.309(f)(1)(iii)(iv) & (vi).

55 *See Summer,* LBP-10-06, slip op. at 4 (*quoting Oconee*, CLI-99-11, 49 NRC at 333-34).

56 10 C.F.R. § 2.335(a); *Oconee*, CLI-99-11, 49 NRC at 334.

57 *See Phila. Elec. Co.* (Peach Bottom Atomic Power Station, Units 2 & 3), ALAB-216, 8 AEC 13, 20, *aff'd in part on other grounds*, CLI-74-32, 8 AEC 217 (1974). *See also Carolina Power & Light Co.* (Shearon Harris Nuclear Power Plant), LBP-07-11, 66 NRC 41, 57-58 (2007) (*citing Peach Bottom*, ALAB-216, 8 AEC at 20).

58 *See, e.g., Dominion Nuclear Conn., Inc.* (Millstone Nuclear Power Station, Unit 2), CLI-03-14, 58 NRC 207, 218 (2003); *Potomac Elec. Power Co.* (Douglas Point Nuclear Generating Station, Units 1 & 2), ALAB-218, 8 AEC 79, 89 (1974).

59 *See Oconee,* CLI-99-11, 49 NRC at 345 (*quoting Douglas Point*, ALAB-218, 8 AEC at 85).

License Renewal of Nuclear Plants."[60] Because the generic environmental analyses of the GEIS have been incorporated into NRC regulations, the conclusions of those analyses may not be challenged in litigation unless 10 C.F.R. § 51.53(c)(3)(i) is waived by the Commission for a particular proceeding or the rule itself is suspended or altered in a rulemaking proceeding.[61] The Commission emphasized that "[a]djudicating Category 1 issues site by site based merely on a claim of 'new and significant information,' would defeat the purpose of resolving generic issues in a GEIS."[62] Instead, NRC regulations provide various alternative means to raise challenges to generic environmental findings, such as a petition for rulemaking under 10 C.F.R. § 2.802 or a request for waiver of regulations under 10 C.F.R. § 2.335.

B. Waiver of Commission Rules in NRC Proceedings

1. *Waiver Standards Under 10 C.F.R. § 2.335*

As a general matter, a contention that challenges an NRC rule is outside the scope of the proceeding because, absent a waiver or exception, no rule or regulation of the Commission is subject to attack in any adjudicatory proceeding.[63] In order to seek waiver of or exception to a rule in a particular adjudicatory proceeding, a party must submit a petition pursuant to 10 C.F.R. § 2.335(b). The requirements for a Section 2.335(b) petition are as follows:

> The *sole ground* for petition of waiver or exception is that special circumstances with respect to the subject matter of the particular proceeding are such that the application of the rule or regulation (or a provision of it) would not serve the purposes for which the rule or regulation was adopted.[64]

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60 *See* 10 C.F.R. §§ 51.71(d), 51.95(c).

61 *See Indian Point*, LBP-08-13, 68 NRC at 185-86; *Entergy Nuclear Vt. Yankee LLC* (Vt. Yankee Nuclear Power Station), CLI-07-3, 65 NRC 13, 17-18 (2007), *aff'd Massachusetts v. NRC*, 522 F.3d 115 (1st Cir. 2008); *Fla. Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 & 4), CLI-01-17, 54 NRC 3, 12 (2001).

62 *Vt. Yankee*, CLI-07-3, 65 NRC at 21.

63 *See* 10 C.F.R. § 2.335(a).

64 Emphasis added.

In accordance with NRC precedent, a Section 2.335 petition "can be granted only in unusual and compelling circumstances."[65] The standards for a Licensing Board to even certify a waiver petition are therefore "*extremely high.*"[66] These high standards for setting aside an agency rule in a specific case under Section 2.335(b) "are intended to ensure that duly promulgated regulations are not lightly discarded."[67]

To obtain a waiver, a petitioner must demonstrate that it satisfies each of the following criteria:

> (i) the rule's strict application "would not serve the purposes for which [it] was adopted"; (ii) the movant has alleged "special circumstances" that were "not considered, either explicitly or by necessary implication, in the rulemaking proceeding leading to the rule sought to be waived"; (iii) those circumstances are "unique" to the facility rather than "common to a large class of facilities"; and (iv) a waiver of the regulation is necessary to reach a "significant safety problem." The use of 'and' in this list of requirements is both intentional and significant. For a waiver request to be granted, *all four* factors must be met.[68]

The petition "must" be supported by an affidavit that states with particularity the special circumstances alleged to justify the waiver or exception that is requested.[69] If, after consideration of the petition, the affidavit, and the responses of other parties, the presiding officer determines that the required *prima facie* showing regarding these criteria has been made,

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65 *Pub. Serv. Co. of N.H.* (Seabrook Station, Units 1 & 2), ALAB-895, 28 NRC 7, 16 (1988), *aff'd*, CLI-88-10, 28 NRC 573, 597, *recons. denied*, CLI-89-3, 29 NRC 234 (1989) (citation omitted).

66 *Pub. Serv. Co. of N.H.* (Seabrook Station, Units 1 & 2), CLI-89-20, 30 NRC 231, 245 (1989) (emphasis added).

67 *Seabrook*, ALAB-895, 28 NRC at 16. The Appeal Board has explained that the "relatively small number of waiver petitions filed in NRC adjudicatory proceedings and the fact that few, if any, such petitions have been successful evidence the difficulty of meeting the waiver standard." *Id.*

68 *Dominion Nuclear Conn., Inc.* (Millstone Nuclear Power Station Units 2 & 3), CLI-05-24, 62 NRC 551, 559-60 (2005) (alteration in the original) (*citing Seabrook*, CLI-89-20, 30 NRC at 235; *Seabrook*, CLI-88-10, 28 NRC at 597). In the context of environmental contentions, the fourth *Millstone* factor has been read to require the waiver request to address a *significant environmental issue*, rather than a significant safety issue. *See Pac. Gas & Elec. Co.* (Diablo Canyon Nuclear Power Plant, Units 1 & 2), LBP-10-15, slip op at 44 n.56 (Aug. 4, 2010).

69 *See* 10 C.F.R. § 2.335(b). *See also Tenn. Valley Auth.* (Watts Bar Unit 2), LBP-10-12, slip op. at 3 n.9 (June 29, 2010) ("the affidavits supporting the petition must present each element of the case for waiver in a persuasive manner with adequate supporting facts"), *aff'd* CLI-10-29, slip op. (Nov. 30, 2010).

then the presiding officer will certify the matter to the Commission.[70] However, if the petition fails to satisfy any of these requirements, then the matter may not be litigated, and "the presiding officer may not further consider the matter."[71]

2. *Exemptions Under 10 C.F.R. § 51.6*

New York asserts that the standards of 10 C.F.R. § 2.335 described above, and the longstanding precedent associated with this regulation, need not be applied in this proceeding and, instead, that 10 C.F.R. § 51.6 provides an alternative, lower standard under which the Board can, under its own purported authority, admit a contention challenging a Commission rule.[72]

Under Section 51.6, "the *Commission* may, upon application of any interested person" grant an exemption from the requirements of 10 C.F.R. Part 51, if it determines that the exemption is "authorized by law" and is "otherwise in the public interest."[73] But this rule does not apply to New York's request. The waiver route, not an exemption request, is *required* when the "exemption request is directly related to a pending contention."[74]

The Commission, moreover, has delegated authority to rule on exemption requests to the NRC Staff, not to an Atomic Safety and Licensing Board.[75] In other words, the exemption process is a licensing function that the Commission carries out through its Staff, not a procedure

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70 *See* 10 C.F.R. § 2.335(c), (d).

71 *See id.* § 2.335(c).

72 *See* Waiver Request at 7-11.

73 10 C.F.R. § 51.6 (emphasis added). Other exemption provisions appear in other Parts of the Commission's regulations. *See, e.g.*, 10 C.F.R. §§ 30.11, 50.12, 70.17.

74 *Private Fuel Storage, L.L.C.* (Indep. Spent Fuel Storage Installation), LBP-99-21, 49 NRC 431, 436 (1999) ("*PFS*").

75 *Pub. Serv. Co. of N.H.* (Seabrook Station, Units 1 & 2), CLI-89-19, 30 NRC 171, 174 n.3 (1989). *See also PFS*, 49 NRC at 438 n.6 ("it is the Staff that has the delegated authority to consider the request [for exemption] wholly outside this adjudication") (*citing* Organization and Functions of the Office of the Executive Director for Operations, Directive 9.17, at 4 (Sept. 12, 1991) ("The [Executive Director for Operations] is authorized and directed to discharge all regulatory (including but not limited to licensing and enforcement) . . . functions of the NRC . . . .") (Entergy Contention NYS-17B Att. 2); Organization and Functions, Office of Nuclear Reactor Regulation, Directive 9.27, § 0123-03-034 (July 13, 1989) ("The Director [Office of Nuclear Reactor Regulation] is authorized and directed to: . . . consistent with NRC regulations, grant exemptions from NRC regulations . . . .") (Entergy Contention NYS-17B Att. 3)).

to be invoked in an adjudicatory proceeding as the mechanism for admitting a contention challenging an NRC rule. As demonstrated in Section IV.C.2, below, under longstanding and settled NRC rules, precedent, and practice, the "*sole*" avenue for admission of a contention challenging a Commission rule in a contested proceeding is through the "waiver or exception" process in Section 2.335.[76] New York's theory is therefore legally unfounded.

IV. ARGUMENT

A. New York's Amended Contention Is Untimely

As explained in Section III.A above, under 10 C.F.R. § 2.309(f)(2), to amend its contention, New York must show that its new bases are based on new information that is *materially different* from previously available information. In New York's Motion, the State asserts that its amended contention is timely because following issuance of the amended Waste Confidence Rule on December 23, 2010; "*for the first time*, there is every reason to believe that spent fuel will remain at the Indian Point site following plant shutdown for an indefinite period."[77] As a result, again allegedly based on the amended Waste Confidence Rule, New York claims that "the Indian Point site will likely become a high level nuclear waste storage facility for a substantial period of time after it ceases to be an operating nuclear power plant site."[78]

The fact that spent fuel will be stored at IPEC for perhaps many years after the period of extended operations has long been publicly known.[79] Importantly, however, the Waste

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[76] 10 C.F.R. § 2.335(b).

[77] Motion for Leave at 2 (emphasis added). Note, however, that the Commission has explicitly *not* concluded that spent fuel will be stored at reactor sites indefinitely. *See* 2010 Waste Confidence Decision, 75 Fed. Reg. at 81,041 ("the changes to Finding 2 do not mean that the Commission has endorsed indefinite storage" of spent nuclear fuel). *See also id.* at 81,044 (responding to the Attorney General of New York's comments on the proposed amendments to the Waste Confidence Rule) ("the changes to Waste Confidence Decision and Rule are not intended to support indefinite storage").

[78] Motion for Leave at 2. New York does *not* assert that the amended contention is timely because of any new or materially different information in the FSEIS. *See* Motion for Leave at 1-4.

[79] *See, e.g.*, Sipos Declaration, Att. 12 (Potential Impacts of Indian Point Relicensing with Delayed Site Reclamation) at 1 ("2009 Sheppard Declaration") ("I have now been advised that it is possible the wastes generated by license renewal may remain on the site for much longer [periods] and perhaps indefinitely").

Confidence Rule has *never* established the timetable for spent fuel removal at IPEC or any other site. Instead, 10 C.F.R. § 51.23, as amended, merely reflects the existing uncertainty regarding the timing of the availability of a geologic repository.[80] In fact, the 2010 Waste Confidence Decision details the steps taken by the President and DOE *approximately one year ago* that had the effect of significantly delaying the availability of a federal repository and spent fuel removal.[81]

Specifically, "[o]n January 29, 2010, President Obama directed the Secretary of Energy to create a 'Blue Ribbon Commission on America's Nuclear Future' to evaluate options for the back-end of the nuclear fuel cycle."[82] Two days later, DOE filed a motion to stay the Yucca Mountain proceeding, based on the President's proposed budget to "discontinue" the pending license application and eliminate all funding for the Yucca Mountain project.[83] On March 3, 2010, DOE filed a motion to withdraw its license application with prejudice.[84] Accordingly, the administration took these very public steps that resulted in a further delay in spent fuel removal, from every nuclear site, over eleven months before New York filed its proposed amended contention NYS-17B.

The amended Waste Confidence Rule, therefore, provides no materially different information regarding the length of time spent fuel will be stored at IPEC that would support a timely contention. By ignoring these developments until the issuance of the amended rule, New York has not met its obligation to "examine the publicly available material" and set forth its

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80 *See* 2010 Waste Confidence Decision, 75 Fed. Reg. at 81,040.

81 *See generally id.* at 81,039-40.

82 *Id.* at 81,039.

83 *See id.*

84 *Id.* at 81,040.

claims in a timely manner.[85] Indeed, the Commission recently reversed a Board's admission of a late-filed contention because the publication of an NRC document—in that case, a Safety Evaluation Report ("SER")—that "compiled all relevant information in a single document" was not new and materially different information that would support the admission of a late-filed contention.[86]

New York itself appears to recognize that the amended Waste Confidence Rule does not truly provide any new and materially different information. In discussing the prospect that spent fuel will remain at IPEC following plant shutdown for an "indefinite" period, the State asserts that this information "was essentially known when the Commission announced that many of the bases upon which the findings in § 51.23 were no longer valid [sic]."[87] Presumably, this sentence refers to the Commission's decision to review the Waste Confidence Rule in 2008, but regardless of what facts New York is referencing, the State apparently admits that the amended Waste Confidence Rule does not provide any materially different information with respect to the prospects for removal of spent nuclear fuel from IPEC.

In fact, the current status of spent fuel storage and removal appears to have been clear to New York for quite some time. Over one year ago, New York asserted in this proceeding that "it is no longer realistic to assume that any wastes previously generated or to be generated at the Indian Point facility will be removed from the site within 30 years after the operation of the reactors" and that "there is no longer reasonable assurance that a permanent mined repository for high-level radioactive waste will be constructed and operating by 2025."[88] In other words, New

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85 *AmerGen Energy Co., LLC* (License Renewal for Oyster Creek Nuclear Generating Station), CLI-09-7, 69 NRC 235, 271-72 (2009) (*quoting La. Energy Servs., L.P.* (Nat'l Enrichment Facility), CLI-04-25, 60 NRC 223, 224-25 (2004)).

86 *See Prairie Island*, CLI-10-27, slip op. at 18.

87 Motion for Leave at 2-3.

88 Answer of the State of New York to Hudson River Sloop Clearwater, Inc.'s Petition Presenting Supplemental Contentions EC-7 and SC-1 Concerning Storage of High-Level Radioactive Waste at Indian Point at 11, 17 (Nov. 19, 2009).

York cannot now hang its hat on the amended Waste Confidence Rule as the source of new and materially different information that spent fuel will remain at Indian Point for an extended period of time.[89]

Thus, at least eleven months ago, New York could have amended its contention and could have sought to waive 10 C.F.R. § 51.23(b)—a provision that has *not* been amended—for precisely the same purposes and based on precisely the same facts that New York now asserts. But it did not. New York's proposed amended contention and waiver request are therefore untimely under 10 C.F.R. § 2.309(f)(2)(ii).

Moreover, to the extent New York seeks to rely on Entergy's December 2010 Preliminary Decommissioning Cost Analysis for The Indian Point Energy Center, Unit 3[90] as a basis for timeliness, this attempt also falls short. New York states that this report indicates that "a new spent fuel storage area will need to be developed at Indian Point to store all of the IP3 spent fuel."[91] But this is clearly not materially different from the information set forth earlier in the same paragraph, where the State cites an August 2009 submission from Entergy to the NRC, "anticipating that more casks will be needed to store the spent fuel from IP3 *even without license renewal.*"[92] Thus, the need for additional spent fuel storage capacity at IPEC due to continued delay in the Federal repository has also long been known. In any case, as discussed below, issues related to Entergy's plans for decommissioning of IPEC, the expected duration of such activities, and the environmental impacts of spent fuel storage at the IPEC ISFSI are all outside the scope of this proceeding.

Because New York has not satisfied the admissibility criteria in 10 C.F.R. § 2.309(f)(2)

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89 *See* Motion for Leave at 2.

90 Sipos Declaration, Att. 10.

91 Contention 17B at 4.

92 *Id.*

applicable to its proposed amended contention, it must bear the burden of satisfying the test set forth in 10 C.F.R. § 2.309(c).[93] New York has not argued that its contention meets the standards in this regulation, thereby waiving its right to demonstrate compliance with Section 2.309(c). NYS-17B therefore must be rejected as untimely.

B. New York's Amended Contention Raises Numerous Issues that Are Outside the Scope of This Proceeding and Fails to Raise a Genuine Dispute on Any New Issues

1. *Challenges to the Waste Confidence Rule Are Outside Scope and Not Material*

a. 10 C.F.R. § 51.23 Bars Consideration of NYS-17B

New York provides a hodge-podge of reasons why its proposed amended contention is not barred by 10 C.F.R. § 51.23(b). Contrary to New York's various theories, all of its various challenges are barred by the rule. As a result, NYS-17B is outside the scope of this adjudicatory proceeding pursuant to 10 C.F.R. § 2.335 and inadmissible.[94]

First, New York asserts that Section 51.23(a) and the 2010 Waste Confidence Decision do not address the "environmental impact on offsite land use and land value,"[95] "non-radiological offsite environmental impacts,"[96] or "offsite socioeconomic impacts."[97] In support, New York discusses a variety of NRC documents related to the Waste Confidence Rule.[98] New

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93 *See Oyster Creek*, CLI-09-7, 69 NRC at 260-61 (2009) ("Section 2.309(c)(2) clearly provides that that a petitioner shall address all eight factors set forth in section 2.309(c)(1). Failure to comply with our pleading requirements for late filings constitutes sufficient grounds for rejecting intervention and hearing requests.") (internal quotations and citations omitted).

94 Entergy addresses New York's claims that 10 C.F.R. § 51.23 should not be applied in this proceeding, or that New York should be exempted from its requirements in Section C, below.

95 Waiver Request at 3.

96 *Id.* at 4.

97 *Id.* at 5.

98 *See id.* at 3-5.

York, however, omits any mention of the directly relevant Statements of Consideration associated with the original issuance of the Waste Confidence Rule in 1984.[99]

As an initial matter, the plain text of a regulation controls.[100] The Commission has determined that evaluation of the environmental impact of spent fuel storage will continue to be handled in a generic manner, as has been the case for many years.[101] The amended Waste Confidence Rule again concludes that spent fuel can be stored safely "without significant environmental impacts."[102] As a result, no discussion of "*any* environmental impact of spent fuel storage" is required in the FSEIS.[103] There is no exception for non-radiological, socioeconomic, or off-site land use as they are all still alleged environmental impacts. The plain text of Section 51.23(a) covers all "environmental impacts" without qualification.[104]

Further, the regulatory history of the original Waste Confidence Rule confirms that the rule covers all environmental impacts, and does not exclude non-radiological, socioeconomic, or land use impacts. The rulemaking includes a section entitled "Nonradiological Consequences of Spent Fuel Storage."[105] This section provides the Commission's assessment of non-radiological, socioeconomic, and land use impacts for spent fuel storage, concluding that "extended storage of

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99 *See* Waste Confidence Decision, 49 Fed. Reg. 34,658 (Aug. 31, 1984); Final Rule, Requirements for Licensee Actions Regarding the Disposition of Spent Fuel Upon Expiration of Reactor Operating Licenses, 49 Fed. Reg. 34,688 (Aug. 31, 1984).

100 *See, e.g., Hydro Res., Inc.* (P.O. Box 777, Crownpoint, N.M. 87313), CLI-06-14, 63 NRC 510, 516 (2006) (finding the plain language of a regulation controlling).

101 *See* Section II.B, above.

102 10 C.F.R. § 51.23(a).

103 *Id.* § 51.23(b) (emphasis added).

104 New York's focus on the alleged non-radiological nature of the environmental impacts raises an obvious question: if the spent fuel at IPEC will allegedly cause non-radiological impacts on land use in the vicinity, what is the source of such impacts, and what environmental process is causing them? New York provides no information on this topic, other than vague references to IPEC as a nuisance or "disamenity." *See, e.g.*, Motion for Leave at 6. The only logical source of the purported impact on land values is not any physical process or actual environmental harm, but the fear of the risk of radiological injury. In fact, the Merriam-Webster's Unabridged Dictionary definition of a disamenity is "disadvantage" or "unpleasantness." Such impacts are not cognizable environmental impacts under NEPA. *See Metro. Edison Co. v. People Against Nuclear Energy,* 460 U.S. 766, 772-76 (1983).

105 *See* Waste Confidence Decision, 49 Fed. Reg. at 34,665.

spent fuel will present *no significant non-radiological consequences* which could adversely affect the environment."[106] The summary in the statements of consideration refers to multiple supporting reports.[107] New York does not recognize or take issue with this aspect of the waste confidence analysis.

New York's reliance on the text in Section 51.23(b), "within the scope of the generic determination," is also misplaced, because the 2010 Waste Confidence Decision explains that phrase. Namely, the phrase is specifically connected to the limitation that the amended Waste Confidence Rule does not directly apply during the term of a reactor license (including license renewal), but only applies to the period after the end of licensed operations.[108] New York, therefore, has no basis for its assertion that the generic determination in Section 51.23(a) does not include all environmental impacts.

New York next asserts that its identified land use impacts are "inherently site-specific."[109] But the State raised similar claims in comments on the recent rulemaking, which the Commission did not incorporate into the final rule.[110] Thus, New York's assertion that its claimed land use environmental impacts are *inherently* site specific is contrary to the Waste Confidence Rule.

Finally, in the course of its Waiver Request and Contention 17B, New York repeatedly attempts to broaden the scope of the Board's inquiry in this proceeding by blurring the distinction between the decision on license renewal for IPEC and the timetable for spent fuel

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106 *Id.* (emphasis added).

107 *See id.*

108 *See* 75 Fed. Reg. at 81,041.

109 Waiver Request at 5.

110 *See* 2010 Waste Confidence Decision, 75 Fed. Reg. at 81,056-57. Although the Commission noted that New York may pursue its claims for waiver in this proceeding, it noted that "the *potential* that one or more sites *might* not fall under the generic determination" in the 2010 Waste Confidence Decision was not a reason to dispense with its chosen generic approach. *Id.* at 81,057 (emphasis added). Entergy addresses New York's Waiver Request in Section IV.C, below.

removal.[111] These two issues are technically separate and logically distinct. The renewal of the IPEC operating licenses is the subject of this proceeding. The timing of removal of any spent fuel from IPEC, however, is outside the scope of this proceeding, and cannot be influenced by any decision in this proceeding. The amended Waste Confidence Rule merely confirms that the date of spent fuel removal from IPEC will be driven by the decisions of the administration and DOE under the NWPA, not by the date when IPEC ceases to operate. This confirmation is neither new nor surprising.

Moreover, when New York states in paragraph 12 of Contention 17B that the additional spent fuel generated during the period of extended operation at IPEC will be "indefinitely stored in dry casks at the site *as a result of license renewal*,"[112] the State is simply wrong. Instead, as New York correctly concludes in paragraph 26, *because of the facts summarized in the 2010 Waste Confidence Decision*, (*i.e.*, based on facts unrelated to license renewal) "spent fuel will remain at the site even after expiration of the longest potential time period for decommissioning the plant."[113] In summary, any issues related to the timing of spent fuel removal at IPEC are beyond the scope of this proceeding and therefore immaterial.[114]

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111 *See, e.g.*, Contention 17B at 8 ("FSEIS contains no discussion of the impact . . . of a mothballed nuclear facility with stored spent waste"; "FSEIS contains no discussion of the impact . . . if the plant licenses were not renewed *and/or* if the SAFSTOR option were rejected" (emphasis added)); Waiver Request at 17 ("Dr. Sheppard has identified the magnitude of the socioeconomic impacts that will occur if Indian Point is relicensed and if spent fuel is allowed to be stored"); 2011 Sheppard Declaration at 2 ("When the plant has closed and the site has been reclaimed. . . . .").

112 Contention 17B at 5 (emphasis added).

113 *Id.* at 9.

114 *See Oconee*, CLI-99-11, 49 NRC at 333-34; *Summer*, LBP-10-06, slip op. at 4. Importantly, New York speculates that "it is reasonable to assume" that the additional spent fuel generated during the period of extended operation will require an additional 10 years to be removed from the site. Contention 17B at 13. *See also id.* at 5. The State cites no facts for its supposition—and the specific duration—of this delay, *except the EIS prepared by DOE for the cancelled repository at Yucca Mountain. See* Contention 17B at 13 n.3 (*citing* Sipos Declaration, Att. 7). As New York repeatedly protests, however, there no longer is *any* schedule for the removal of spent fuel. *See, e.g.*, Contention 17B at 9 ("neither the Commission nor 10 C.F.R. § 51.23 indicates any date by which spent fuel will be removed from the plant site"). Therefore New York and Dr. Sheppard's schedule estimates based on the abandoned Yucca Mountain repository are factually and legally unsupported.

b. There Is No Regulatory Gap Regarding Impacts More than 60 Years Beyond Licensed Life, and to the Extent Any Perceived Gap May Exist, It Is the Subject of An Ongoing Commission Rulemaking

New York also asserts that the amended Waste Confidence Rule "makes no findings as to the environmental impact of spent fuel storage at the reactor site beyond 60 years after plant shutdown."[115] In effect, New York claims that there is an apparent regulatory gap because the impacts beyond 60 years have not been analyzed.

As a threshold matter, of course, this Part 54 proceeding governs license renewal, including the environmental impacts associated with continued operation for only *an additional 20 years* (*i.e.*, until 2033 for IP2 and 2035 for IP3). The environmental impacts of spent fuel storage *beyond* 2093 or 2095 are beyond the scope of this proceeding.

Moreover, there simply is no "regulatory gap." The plain text of the amended Section 51.23(a) states that spent fuel "can be stored safely and without significant environmental impacts for *at least* 60 years beyond the licensed life for operation," and goes on to state the Commission's belief that sufficient repository capacity will be available "when necessary."[116] Read together, it is clear from the plain text of the rule that the existing analysis, which extends to at least 60 years beyond the licensed life for operation, is sufficient to address the impacts of spent fuel storage.[117]

With respect to future actions:

> [T]he Commission has confidence that *either* a repository will be available before the expiration of the 60 years post-licensed life discussed in Finding 4 *or* that the Waste Confidence Decision and Rule will be updated and revised if the expiration of the 60-year

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115 Contention 17B at 9 (*citing* 75 Fed. Reg. at 81,032-76)

116 Emphasis added.

117 And as the Commission has previously explained, "the Court decision that led to the Waste Confidence Proceeding did not require NRC to determine when a repository would be available." Review and Final Revision of Waste Confidence Decision, 55 Fed. Reg. 38,474, 38,477 (Sept. 18, 1990) (*citing Minnesota* v. *NRC*, 602 F.2d 412 (DC Cir.1979)).

> period approaches without an ultimate disposal solution for the HLW and SNF.[118]

Thus, contrary to New York's contention, there is simply no regulatory gap beyond 60 years after plant shutdown. The Commission has already held that *if* it becomes necessary to conduct this evaluation, it has sufficient time to do so over the next 80 years or more.

The NRC has in fact already initiated this evaluation, again following its previous generic approach. As explained in the 2010 Waste Confidence Decision,

> The Commission, as a separate action, has directed the staff to develop a plan for a longer-term rulemaking and Environmental Impact Statement (EIS) to assess the environmental impacts and safety of long-term SNF and HLW storage beyond 120 years (SRM–SECY–09–0090; ADAMS Accession Number ML102580229). This analysis will go *well beyond* the current analysis that supports at least 60 years of post-licensed life storage with eventual disposal in a deep geologic repository.[119]

In other words, the long-term environmental impacts of long-term spent fuel storage, well beyond the term covered by the amended Waste Confidence Rule, is now the subject of a Commission rulemaking initiative. As the Commission recently reiterated in this proceeding, "[u]nder longstanding NRC policy, licensing boards 'should not accept in individual license proceedings contentions which are (*or are about to become*) the subject of general rulemaking by the Commission.'"[120] Thus, New York's desire to litigate its perceived gap in the new 10 C.F.R. § 51.23(a) is well outside the scope of this proceeding and must be dismissed.

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118 2010 Waste Confidence Decision, 75 Fed. Reg. at 81,043 (emphasis added).

119 *Id.* at 81,040 (emphasis added).

120 CLI-10-19, slip op. at 2-3 (*quoting Oconee*, CLI-99-11, 49 NRC at 345) (emphasis added). In *Oconee*, the Commission held that, although the topic petitioners sought to raise was not governed by a current rule, the issuance of a Staff Requirements Memorandum ("SRM") for the NRC Staff to initiate a rulemaking on the topic was sufficient to preclude the topic from litigation in individual licensing proceedings. *See* 49 NRC at 345-56. The rulemaking on the very long-term impacts of spent fuel storage is currently at the same stage. *See* 2010 Waste Confidence Decision, 75 Fed. Reg. at 81,040.

2. *Disputes Over the Duration of Decommissioning Activities or Entergy's Decommissioning Plans Are Outside Scope*

As noted above, New York repeatedly blurs the distinctions between the NRC's decision in this license renewal proceeding and DOE's decisions regarding when it will be ready to remove spent fuel from IPEC. Similarly, New York also obfuscates important distinctions between license renewal and the NRC's decisions on the method and duration of decommissioning of IPEC under 10 C.F.R. § 50.82. For example, New York states that the

> The FSEIS contains no discussion of the impact on surrounding property values of a mothballed nuclear facility with stored spent waste through 2095 nor does it compare those impacts to the impacts that would result if the plant licenses were not renewed *and/or if the SAFSTOR option were rejected* because of its severe adverse offsite environmental impacts.[121]

As a threshold matter, decommissioning scheduling and planning is reviewed by the NRC Staff under 10 C.F.R. § 50.82, not within the context of a license renewal proceeding. The NRC's review of Entergy's decommissioning planning for IPEC, therefore, is not within the scope of this proceeding.

Consistent with Section 50.82, which requires decommissioning to be complete within 60 years of permanent cessation of operations,[122] Entergy's decommissioning planning documents assume that IP2 and IP3 will remain in SAFSTOR until approximately 2064 or 2065.[123] There is no argument or decision *in this proceeding* that can change these facts or dictate the outcome of the NRC Staff's review of Entergy's decommissioning plans. New York

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121 Contention 17B at 8 (emphasis added). "SAFSTOR" refers to the decommissioning alternative where a nuclear facility is placed and maintained in a condition where it can be safely stored and subsequently decontaminated and decommissioned within 60 years. *See* Final Rule, General Requirements for Decommissioning Nuclear Facilities, 53 Fed. Reg. 24,018, 24,022 (June 27, 1988).

122 10 C.F.R. § 50.82(a)(3).

123 *See* Contention 17B at 8 n.2 (*citing* NL-08-144, Preliminary Decommissioning Cost Analysis for the Indian Point Energy Center, Unit 2, Encl. 2 (Oct. 22, 2008), *available at ADAMS* Accession No. ML092260723 (selections from this document are attached to the Sipos Declaration, Attachment 8, but the document is erroneously dated in Contention 17B as Oct. 22, 2010, not 2008)); Preliminary Decommissioning Cost Analysis for the Indian Point Energy Center, Unit 3 at 3 (Dec. 9, 2010), *available at ADAMS* Accession No. ML103550608 (Entergy Contention NYS-17B Att. 4).

appears to recognize this fact when it refers to correspondence regarding Entergy's decommissioning plan and concludes that "all parties must assume that the site will contain a non-operating nuclear facility for a period of 60 years from the end of operations."[124] For this reason, the FSEIS properly recognizes that full dismantling of structures and decontamination of the site may not occur for up to 60 years after plant shutdown.[125] New York's attempts to litigate such issues in this proceeding based on an alternative set of assumptions unrelated to license renewal amount to unsupported and pointless speculation.[126]

As for the environmental impacts of decommissioning, the GEIS has evaluated the incremental impacts of decommissioning activities resulting from continued plant operation during the license renewal term, and found all such impacts to be Category 1.[127] The IPEC FSEIS also evaluated such impacts at IPEC, and found no new and significant information suggesting that there were any impacts beyond those discussed in the GEIS.[128] As explained in Section III.B., above, such conclusions are not subject to challenge in this proceeding, absent a waiver under 10 C.F.R. § 2.335.[129] New York does not request a waiver of 10 C.F.R. Part 50, Appendix B to Subpart A, Table B-1 ("Table B-1"). Thus, New York may not offer proof or argument in this proceeding regarding the environmental impacts of decommissioning activities resulting from the continued operation of IPEC under a renewed license.

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124 Contention 17B at 8.

125 *See* FSEIS at 8-20.

126 Entergy recognizes that the Board has stated that "the length of the decommissioning period is not a finding by the Commission and therefore it may be challenged in this proceeding," and that "New York may, but does not have to, rely on the time for decommissioning outlined in Part 50." Apr. 22, 2010 Order at 14. Entergy respectfully disagrees, because the Part 50 decommissioning process for IPEC is beyond the scope of this proceeding. Further, New York has now admitted all parties must assume a 60-year decommissioning period. *See* Contention 17B at 8.

127 *See* GEIS at 7-26 (Entergy Contention NYS-17B Att. 5); FSEIS at 7-1.

128 *See* FSEIS at 7-1 to -4.

129 *See Vt. Yankee*, CLI-07-3, 65 NRC at 17-18 ("Because the generic environmental analysis was incorporated into a regulation, the conclusions of that analysis may not be challenged in litigation unless the rule is waived by the Commission for a particular proceeding . . . ."); *Turkey Point*, 54 NRC at 12, 22-23; *Indian Point*, LBP-08-13, 68 NRC at 185-86.

Accordingly, New York's purported disputes over decommissioning planning and activities at IPEC are also outside the scope of this proceeding and must be excluded from the scope of this contention under 10 C.F.R. § 2.309(f)(1)(iii).

3. *New York's Allegations that License Renewal Will Lead to an Incremental Increase in Spent Fuel Generation Are Outside Scope*

New York raises additional challenges outside the scope of this proceeding when it asserts that license renewal will lead to an incremental increase in spent fuel generation and thereby increase environmental impacts. For example, New York asserts that the quantity of spent fuel generated at the plant would be approximately 50% less if license renewal were denied,[130] that the IPEC spent fuel pools are not sufficient to contain the spent fuel generated during the additional 20 years of operation,[131] and that the dry cask storage of spent fuel will create further impacts on the value and potential use of adjacent lands.[132] New York recognizes, however, that, not only are the IPEC spent fuel pools not sufficient to contain spent fuel generated for the current term, but "more casks and cask storage areas will be needed to store the spent fuel from IP3 *even without license renewal.*"[133]

During the period of extended operation, such impacts are addressed generically as Category 1 issues in the GEIS. Specifically, the NRC's finding regarding the environmental impacts of onsite spent fuel storage are codified as a Category 1 issue in Table B-1. Table B-1 expressly provides that the "expected increase in the volume of spent fuel from an additional 20 years of operation can be safely accommodated on site with *small environmental effects* through

130 *See* Contention 17B at 3.

131 *See id.* at 4.

132 *See id.*

133 *Id.* at 13 (emphasis in original). *See also id.* at 4.

dry or pool storage *at all plants*."[134] This rule is based on the Commission's explicit determination that such impacts were appropriately addressed in a generic manner.[135] The GEIS makes clear that these findings cover both radiological and non-radiological impacts from spent fuel storage and rejects the need for further consideration of mitigation alternatives at the license renewal stage.[136] The FSEIS concluded that there was no new and significant information to alter this conclusion for IPEC license renewal.[137] As explained in Section III.C, such conclusions are not subject to challenge in this proceeding, absent a waiver under 10 C.F.R. § 2.335. New York does not challenge the FSEIS directly on this point and does not request a waiver of 10 C.F.R. Part 50, Appendix B, Table B-1.

After the period of extended operation the impacts of spent fuel storage, as discussed in Section II.B above, are addressed in the amended Waste Confidence Rule. Accordingly, New York's purported disputes over the incremental increase in spent fuel generation during the original or extended period of operation are also outside the scope of this proceeding and should be rejected pursuant to 10 C.F.R. § 2.309(f)(1)(iii).

4. *The Environmental Impacts of Spent Fuel Storage at an ISFSI Are Outside Scope and Not Material*

New York again strays outside the Commission-established scope of this proceeding when it seeks to litigate the environmental impacts of storage of spent fuel at the IPEC ISFSI. For example, New York refers to two Entergy documents related to decommissioning of IPEC to indicate that additional dry cask storage will be required at IPEC, and alleges that this dry cask

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134 10 C.F.R. pt. 51, subpt. A, app. B, Table B-1 (emphasis added). *See also* FSEIS at 6-6.

135 *See* Final Rule, Environmental Review for Renewal of Nuclear Power Plant Operating Licenses, 61 Fed. Reg. 66,537, 66,538 (Dec. 18, 1996) (concluding that high-level waste storage and disposal "is a national problem of essentially the same degree of complexity and uncertainty for every renewal application and it would not be useful to have a repetitive reconsideration of the matter").

136 *See* GEIS at 6-85 to 6-86. This assessment in the GEIS considers land use and socioeconomic impacts. *See id.* at 6-84.

137 *See* FSEIS at 6-8.

storage will create further impacts.[138] New York then claims that the "FSEIS contains no analysis of the environmental impact on adjacent land values that will be associated with the construction and long term operation of a dry cask storage facility at the Indian Point site . . . ."[139]

Such issues are again outside the scope of a license renewal proceeding as defined by 10 C.F.R. Part 54 and as set forth in Entergy's LRA. ISFSIs are licensed and regulated under 10 C.F.R. Part 72 of the NRC's regulations, which provides for two types of ISFSI licenses, site specific licenses and general licenses.[140] The IPEC ISFSI operates pursuant to a general license under 10 C.F.R. § 72.210.[141] Part 72 contains its own license renewal provisions for ISFSIs separate and distinct from Part 54.[142] Based on these separate and distinct licensing processes, the Commission has ruled that issues related to ISFSIs are outside the scope of Part 54 power reactor license renewal proceedings.[143] Specifically, in the *Palisades* license renewal proceeding, the Commission addressed this issue directly:

> [T]he dry cask storage facility, or [ISFSI], is licensed separately from the reactor. The current proceeding concerns the renewal of the reactor operating license pursuant to 10 C.F.R. Parts 51 and 54, and not the ISFSI, which is licensed pursuant to 10 C.F.R. Part 72.

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138 *See* Contention 17B at 4.

139 *Id.* In fact, this alleged omission is not only outside the scope of the proceeding, it is demonstrably incorrect. The FSEIS *does* review the GEIS' Category 1 determination that the "expected increase in the volume of spent fuel from an additional 20 years of operation can be safely accommodated on site with small environmental effects through dry or pool storage at all plants . . . ." FSEIS at 6-7.

140 *Compare* 10 C.F.R. § 72.40 (providing for site specific ISFSI licenses), *with id.* § 72.210 (providing for general licenses for ISFSI located at nuclear power plants using NRC-approved casks).

141 *See* FSEIS at 4-68; Letter from J.E. Pollock, Entergy, to NRC Document Control Desk, "Indian Point Energy Center Registration of Unit 2 Spent Fuel Cask Use" at 1 (Feb. 5, 2008), *available at* ADAMS Accession No. ML080440312 (Entergy Contention NYS-17B Att. 6).

142 *See* 10 C.F.R. §§ 72.42(b) (license renewal for site-specific licenses), 72.212(a)(3) (extension of general licenses).

143 *See Nuclear Mgmt. Co.* (Palisades Nuclear Plant), CLI-06-17, 63 NRC 727, 733 (2006); *Oconee*, CLI-99-11, 49 NRC at 344 n.4 ("the Commission handles as a separate licensing matter [from license renewal] any applications for an onsite ISFSI. ISFSI licenses are granted under 10 C.F.R. Part 72").

> Issues involving the ISFSI are, quite simply, separate licensing matters.[144]

Thus, because the IPEC ISFSI is licensed pursuant to 10 C.F.R. § 72.212 (as was the ISFSI in the *Palisades* proceeding), such matters are beyond the scope of this proceeding.[145]

Accordingly, New York's allegations relating to the environmental impacts of spent fuel storage at the IPEC ISFSI are not within the scope of the proceeding or material to the findings the NRC must make, as required by 10 C.F.R. § 2.309(f)(1)(iii) and (iv).

5. *NYS-17B Is Unsupported Because Dr. Sheppard's Declaration Is Premised on the Unsupported Assumption that Denial of License Renewal Will Lead to An Earlier Date for Spent Fuel Removal*

As New York states, the 4th Sheppard Declaration is premised on the "hypothetical that the disamenity at issue will be removed."[146] As an initial matter, New York does not define what it means by "the disamenity." New York does not explain whether it is referring to the cessation of operations at IPEC, the decommissioning of the site, the removal of all spent nuclear fuel or some combination thereof. Dr. Sheppard is similarly vague when he states that the "basis" of his analysis is that nearby property values can be expected to increase "when the plant has closed and the site has been reclaimed."[147]

As noted above, New York and Dr. Sheppard's approach blurs the distinctions between (a) the outcome of this proceeding, (b) a separate decision by the NRC regarding the approval of Entergy's decommissioning plan, and (c) timing of spent fuel removal, which, as explained in

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144 *Palisades*, CLI-06-17, 63 NRC at 733 (citation omitted). *See also* 10 C.F.R. § 72.212(a) (permitting general ISFSI licensees to store spent fuel in approved casks for up to 20 years, a period which can be extended through reapproval).

145 Moreover, New York appears to recognize that expansion of the IPEC ISFSI will be required "*even without license renewal*," further confirming the lack of materiality of its allegations on this point. Contention 17B at 4 (emphasis in original).

146 Waiver Request at 16.

147 2011 Sheppard Declaration at 2.

Section II.B, above, is solely in the hands of the administration and DOE.[148] Indeed, each of Dr. Sheppard's five scenarios appears to include the implicit assumption that waste removal is *completed* at the same time as decommissioning.[149]

This, of course, is not the case, as decommissioning is within the authority of Entergy and the NRC Staff under 10 C.F.R. § 50.82, while spent fuel removal is not. In fact, many commercial reactor sites that have completed decommissioning, such as the Trojan, Maine Yankee, and Yankee Rowe sites, still have spent fuel stored onsite today. As New York itself acknowledges, "spent fuel will remain at the site even after expiration of the longest potential period for decommissioning the plant."[150] In other words, New York does not even agree with a fundamental assumption in Dr. Sheppard's analysis—that it is possible to estimate the date when the "disamenity" is removed.[151]

Because Dr. Sheppard does not properly distinguish between the effects of the proposed action and the effects of other actions, he fails to provide an analysis of the environmental impacts of the proposed action—at least with any reasoned basis or explanation.[152] Rather, he engages in speculation involving a host of unrelated issues that cannot serve as an adequate basis for contention admissibility.[153] New York's allegation that the FSEIS fails to address the

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148 *See, e.g., id.* at 2 (explaining that "reclamation of IPEC site" includes "removal of all spent fuel, hazardous materials, buildings, and equipment").

149 *See id.* at 4.

150 *See* Contention 17B at 9.

151 Indeed, as explained *supra* note 114, Dr. Sheppard's supposition that it will take "an additional ten years" to remove the additional waste generated during the period of extended operation, 2011 Sheppard Declaration at 3, is based on the now-abrogated FEIS for the repository at Yucca Mountain.

152 *See USEC, Inc.*, CLI-06-10, 63 NRC at 472 ("an expert opinion that merely states a conclusion without providing a reasoned basis or explanation for that conclusion is inadequate because it deprives the Board of the ability to make the necessary, reflective assessment of the opinion").

153 *See, e.g., Fansteel, Inc.* (Muskogee, Okla. Site), CLI-03-13, 58 NRC 195, 203 (2003) (a contention cannot be based on "bare assertions and speculation").

impacts of continued operation of IPEC, therefore, is unsupported by alleged facts or expert opinion and should be rejected under 10 C.F.R. § 2.309(f)(1)(v).

6. *There Is No New Genuine Dispute in NYS-17B*

For all the reasons set forth above, NYS-17B raises no new genuine dispute of law or fact. As to the question of "whether all or any part of the bases are precluded by 10 C.F.R. § 51.23(b),"[154] this regulation *does* preclude any litigation in this proceeding of the environmental impacts—including non-radiological, socioeconomic, and land use impacts—of spent fuel storage following the period of extended operation. No further litigation of this issue is permitted.[155]

C. Waiver of 10 C.F.R. § 51.23 Is Not Justified In This Proceeding

1. *Section 51.23 Bars the Consideration of All Environmental Impacts of Spent Fuel Storage in this Proceeding*

New York's Waiver Request begins with the surprising claim that, contrary to its plain text, 10 C.F.R. § 51.23 does not bar consideration of the environmental impacts of on-site spent fuel storage in this proceeding.[156] New York alleges that certain environmental impacts, such as non-radiological, socioeconomic, or land use impacts are not within the scope of the amended Waste Confidence Rule.[157] As explained in Section IV.B.1.a, the amended Waste Confidence Rule covers *all* environmental impacts, including non-radiological impacts. Therefore, New York's argument is incorrect.

New York appears to acknowledge the weakness of its interpretation of 10 C.F.R. § 51.23 in the face of the plain text of the rule when it requests the alternative relief of exemption and/or

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154 Motion for Leave at 6.

155 Section C, below, addresses New York's various alternative theories to avoid the effect of the Waste Confidence Rule.

156 *See* Waiver Request at 3-6.

157 *See id.*

waiver.[158] In fact, New York provides an entirely separate, 21-page pleading devoted to the explanation of its regulatory interpretation and its alternative requests for exemption and waiver of the regulation that clearly precludes its contention.

2. *10 C.F.R. § 51.23 Should Not Be Waived, and Exemption Under Section 51.6 Is Devoid of Legal Basis*

a. The Exemption Provision in 10 C.F.R. § 51.6 Is Inapplicable

New York claims that, under 10 C.F.R. § 51.6, it is an "interested person," entitled to request an exemption from Section 51.23(b) if "the Commission 'determines [the exemption is] authorized by law and [is] otherwise in the public interest.'"[159] In addition, New York theorizes that the Commission has delegated authority to the Board to grant exemptions under Section 51.6.[160]

As explained in Section III.B.2, above, 10 C.F.R. § 51.6, does not provide an alternative procedural avenue to circumvent the more specific and pertinent provisions of Section 2.335. In contrast to New York's theory, the Commission has held that when a generic environmental analysis is "incorporated into a regulation, the conclusions of that analysis may not be challenged in litigation unless the rule is *waived* by the Commission for a particular proceeding."[161] New York's theory disregards the "extremely high" standards that must be met even to certify a waiver request under 10 C.F.R. § 2.335, and the well-developed body of case law associated with that regulation.[162]

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158 *See id.* at 7 ("Should the Board disagree . . . .").

159 *Id.* at 8 (*quoting* 10 C.F.R. § 51.6).

160 *See id.* at 8 n.3.

161 *Vt. Yankee*, CLI-07-3, 65 NRC at 17-18 (emphasis added) (*citing* 10 C.F.R. § 2.335).

162 *See Seabrook*, CLI-89-20, 30 NRC at 245.

(i) New York's Theory Is Unprecedented and Demonstrably Contrary to Commission Practice

First, and most importantly, New York cites no precedent in support of its request to apply 10 C.F.R. § 51.6,[163] because the relevant precedent applies Section 2.335. The Waiver Request fails to cite a single example of a Board or any other NRC presiding officer admitting a contention based on an exemption under Section 51.6, or any other similar regulatory exemption provision, or even to an example of the consideration of an exemption request in connection with an intervenor's proposed contention. On the contrary, there is a long line of cases in which presiding officers have considered such requests under the waiver rules, and the Commission has done likewise.[164] While the waiver and exemption provisions do offer alternative methods for seeking exceptions to Commission rules, the waiver route is *required* when the "exemption request is directly related to a pending contention."[165]

Indeed, another party to this proceeding has already attempted—unsuccessfully—to proffer a challenge to a Commission regulation under 10 C.F.R. § 51.6. On October 23, 2007, Friends United for Sustainable Energy USA, Inc. ("FUSE") submitted to then-Chairman Klein a "Formal Request for the GEIS to be Exempted as a Requirement of Part 10 CFR 51.6, Thereby Requiring Entergy to Address All Category 1 and Category 2 Issues in the EIS." Like New York, FUSE did not invoke the waiver provisions in Section 2.335, but instead sought to invoke the exemption rule in Section 51.6. The Secretary of the Commission, however, summarily referred the matter to this Board to "treat this letter as a petition under 10 C.F.R. § 2.335" and

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163 Indeed the *only* purported legal authority New York relies upon to demonstrate the alleged applicability of Section 51.6 is the State's alleged status as an "interested person." *See* Waiver Request at 7-8.

164 *See, e.g., U.S. Dep't of Energy* (High Level Waste Repository), CLI-10-10, slip op. at 2-3, 4-5 (Mar. 11, 2010) (evaluating a petition for waiver under 10 C.F.R. § 2.335); *Millstone*, CLI-05-24, 62 NRC at 559-60 (same); *Seabrook*, CLI-89-20, 30 NRC at 235 (evaluating a waiver request under 10 C.F.R. § 2.758 (predecessor of § 2.335)); *Pub. Serv. Co. of N.H.* (Seabrook Station, Units 1 & 2), CLI-88-10, 28 NRC 573, 601 (1988) (same); *Watts Bar*, LBP-10-12, slip op. at 1, *aff'd* CLI-10-29 (evaluating a petition for waiver under 10 C.F.R. § 2.335).

165 *See PFS*, LBP-99-21, 49 NRC at 436 (*citing Carolina Power & Light Co.* (Shearon Harris Nuclear Power Plant), CLI-86-24, 24 NRC 769, 774 n.5 (1986)).

evaluate it under that regulation.[166] This Board then issued an order authorizing FUSE to submit a petition under Section 2.335.[167] In other words, in a contested proceeding, an intervenor's request to impose additional requirements on an applicant or the Staff, beyond those cited in the regulations, *must* be evaluated under Section 2.335, rather than Section 51.6. This is such a bedrock principle of NRC jurisprudence that the Secretary applied this rule under her administrative authority.[168] New York's request is no different, and should be evaluated in the same manner.

(ii) New York's Theory Is Contrary to the Commission's Explicit Direction

Beyond Commission precedent and practice, the Commission has already explained in the 2010 Waste Confidence Decision—*in direct response to comments from the Attorney General of New York*—precisely what the State of New York should do if it believes there are site-specific issues associated with *this proceeding* that would warrant further consideration of the conclusions in the amended Waste Confidence Rule: "the State should seek a waiver of the rule through that proceeding using the procedures in 10 CFR 2.335."[169] In effect, the State seeks to sidestep the Commission's explicit direction on this very issue and presumably thereby lower the bar for consideration of their contention through an entirely inapplicable regulation.

(iii) New York's Theory Is Contrary to Standard Principles of Regulatory Interpretation

New York's theory also runs contrary to standard principles of regulatory interpretation. Specifically, a regulatory text "should be construed so that effect is given to all of its provisions,

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166 Memorandum from A. Cook, SECY to L. McDade, R. Wardwell, & K. Lathrop, FUSE Request to Include Category 1 Issues in the Indian Point 2 and 3 License Renewal Environmental Scoping Process (Nov. 13, 2007), *available in* ADAMS at Accession No. ML073190407 (Entergy Contention NYS-17B Att. 7).

167 *See* Order (Authorizing FUSE to Submit a Section 2.335 Petition) at 3 (Nov. 21, 2007) (unpublished). FUSE never pursued its waiver claim.

168 *See* 10 C.F.R. § 2.346.

169 2010 Waste Confidence Decision, 75 Fed. Reg. at 81,057.

so no part will be inoperative or superfluous, void or insignificant."[170] 10 C.F.R. § 2.335 is quite specific and directly pertinent to New York's request. It states that "no 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 this part.*"[171] It then goes on to explain that a party may petition for a waiver or exception, and explains the stringent requirements that are the "sole ground" for such a waiver or exception to be certified to the Commission.[172]

As noted above, New York theorizes that 10 C.F.R. § 51.6 permits the proponent of a contention to use Section 51.6 to litigate an environmental contention that would otherwise be precluded by a Commission rule.[173] It then theorizes that, under Section 51.6, the exemption need only be authorized by law and be in the public interest to be granted—dispensing with the four-part test for special circumstances, supported by an affidavit, that would be required under 10 C.F.R. § 2.335.[174] New York's theory, if true, would render the more specific and directly pertinent Section 2.335 meaningless in the context of environmental contentions, because the proponent of any environmental contention could routinely seek to rely on Section 51.6 rather than Section 2.335.[175] New York's interpretation would render Section 2.335 superfluous, so it cannot be correct.

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170 *U.S. Dep't of Energy* (High-Level Waste Repository), LBP-10-22, slip op. at 8 n.25 (Dec. 14, 2010) (*quoting Silverman v. Eastrich Multiple Investor Fund, L.P.*, 51 F.3d 28, 31 (3rd Cir. 1995)).

171 10 C.F.R. § 2.335(a) (emphasis added).

172 *See id.* § 2.335(b)-(c).

173 *See* Waiver Request at 7-11.

174 *See id.* at 7-8.

175 In fact, other exemption provisions in the Commission's regulations, such as 10 C.F.R. §§ 50.12, 52.63(b)(1), and 54.15 apply a special circumstances standard, similar to that in Section 2.335, further confirming that Section 51.6 is not intended as an equivalent alternative to waiver.

(iv) New York's Request is Neither Authorized By Law or in the Public Interest

New York vaguely relies upon 10 C.F.R. Part 51, NEPA, and the regulations of the Council on Environmental Quality in 40 C.F.R. Part 1502 in support of its argument that an exemption would be authorized by law.[176] As demonstrated above, however, the Board's use of an exemption under 10 C.F.R. § 51.6 to permit the admission of a contention challenging Commission regulations would not be "authorized by law" because it would be contrary to the more pertinent regulation in 10 C.F.R. § 2.335, longstanding agency practice and precedent associated with that regulation, and the NRC's internal procedures, which do not delegate this authority to the Board..

A crucial component of New York's exemption theory is that Section 51.6 purportedly authorizes the Board, rather than the Commission, to make the decision to permit litigation of an issue foreclosed by a Commission rule. According to New York, the Commission has apparently delegated plenary decisionmaking authority to the Board, including the authority to rule on exemption requests under 10 C.F.R. § 51.6.[177] As explained in Section III.B.2, above, this is wrong.[178]

While New York points to the Order establishing this Board for support,[179] none of the authorities cited in that Order grant such power.[180] On the contrary, many Boards have recognized that they have not been delegated plenary authority to grant exemption requests.[181]

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176 *See* Waiver Request at 8.

177 *See id.* at 8 n.3 (citing Establishment of Atomic Safety and Licensing Board (Oct. 18, 2007) ("Oct. 18 2007 Order").

178 *See also* Final Rule, Specific Exemptions; Clarification of Standards, 50 Fed. Reg. 50,764, 50,764 (Dec. 12, 1985) ("Traditionally, this authority [to grant exemptions] has been delegated by the Commission to its staff . . . .").

179 *See* Waiver Request at 8 n.3.

180 *See* Oct. 18, 2007 Order at 1 (*citing* Authority of Atomic Safety and Licensing Board to Rule on Certain Petitions, 37 Fed. Reg. 28,710 (Dec. 29, 1972); 10 C.F.R. §§ 2.104, 2.300, 2.303, 2.309, 2.311, 2.318, 2.321).

181 *See Toledo Edison Co.* (Davis Besse Nuclear Power Station), ALAB-32, 4 AEC 698, 700 (1971) ("the Commission has not delegated to Licensing Boards the authority to grant or take action with respect to *exemptions, but instead has generally*

The flawed assumption that the Board can rule on the exemption request is the basis for New York's public interest argument. According to New York, the Board should disregard the Commission's rules and proceed to hold an evidentiary hearing—on matters that the Commission resolved in a generic manner only two months ago—in the interests of "certainty" and "efficiency," and on the theory that no party will be injured.[182] On the contrary, the public interest is not served by wasting the resources of the Board and all of the parties on a hearing that the Commission has not authorized and has instead precluded through duly and just recently promulgated regulations.

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Thus, the Board must reject New York's unsupported and unprecedented request for an exemption under 10 C.F.R. § 51.6, and instead analyze New York's waiver request under Section 2.335.

b. New York Has Not Made a *Prima Facie* Case for a Waiver under 10 C.F.R. § 2.335

In response to New York's comments asserting that the environmental impacts of spent fuel storage are "inherently site-specific,"[183] the Commission suggested that this proceeding may be the proper *venue* in which to seek a waiver to the Waste Confidence Rule.[184] As the Commission noted, however, such a request must demonstrate that there are site-specific, special circumstances so that the application of the rule or regulation would not serve the purposes for

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conferred such authority on the Director of Regulation"); Gulf States Utils. Co. (River Bend Station, Unit 1), LBP-95-10, 41 NRC 460, 473 (1995) ("This Board is not authorized to grant exemptions to NRC regulations or to acquiesce in arguments that would result in the circumvention of those regulations."); *S. Cal. Edison Co.* (San Onofre Nuclear Generating Station, Units 2 &3), LBP-77-35, 5 NRC 1290, 1291 (1977) ("We find no authority in the Atomic Energy Act or in any of the Commission's regulations which empowers us to grant the exemption . . . .").

182 *See* Waiver Request at 10-11.

183 Sipos Declaration, Att. 13 at 7 (Supplemental Comments by the Office of the Attorney General of the State of New York Concerning the Nuclear Regulatory Commission's Proposed Waste Confidence Decision Update and Consideration of Environmental Impacts of Temporary Storage of Spent Fuel After Cessation of Reactor Operation) ("New York Supplemental Comments").

184 *See* 2010 Waste Confidence Decision, 75 Fed. Reg. at 81,057.

which it was adopted.[185] Under the *Millstone* test discussed above, New York must show that: (1) the strict application of 10 C.F.R. § 51.23(b) would not serve the purposes for which it was adopted; (2) there are special circumstances that were not considered in the 2010 Waste Confidence Decision or prior supporting rulemakings; (3) those special circumstances are unique to IPEC, rather than common to a large class of facilities; *and* (4) waiver is necessary to reach a significant problem.[186] As explained below, New York has not met any of the four parts of the *Millstone* test, much less all four, so its Waiver Request must be denied.

(i) New York Does Not Demonstrate that the Waste Confidence Rule Would Not Serve the Purposes for Which It Was Adopted

To obtain a waiver, New York must first show that the Waste Confidence rule will not serve its intended purpose of providing a generic determination of the environmental impacts of spent fuel storage.[187] New York's Waiver Request purports to identify "substantial site-specific environmental implications of long term spent fuel storage at Indian Point that have not been evaluated, explicitly or by implication, in either the Waste Confidence Decision Update, including earlier versions, or in the FSEIS in this case."[188] In support, New York points to the various Declarations of Dr. Sheppard.[189]

As noted above, Dr. Sheppard's 4th Declaration presents a series of hypothetical scenarios regarding the expected date of cessation of operations *and* decommissioning *and* spent fuel removal *and* subsequent availability of the IPEC site for alternative uses. This approach, as previously explained, obscures the important distinctions between the alleged effects of license

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185 *See id.* (discussing 10 C.F.R. § 2.335).

186 *Millstone*, CLI-05-24, 62 NRC 559-60.

187 *See* 2010 Waste Confidence Decision, 75 Fed. Reg. at 81,038.

188 Waiver Request at 14.

189 *See id.* This approach—of vaguely relying on multiple supporting reports—is inadequate under the 10 C.F.R. § 2.335, which requires a waiver petition to be "accompanied by an affidavit" that states "with particularity" the special circumstances alleged to justify the waiver. This deficiency alone is sufficient to deny New York's waiver request.

renewal, the duration of decommissioning, and the date of spent fuel removal, the latter of which is based on pure speculation. The other Sheppard Declarations merely provide further background or previous iterations of this analysis.[190]

Thus, none of the various Sheppard Declarations explain or show how, why or to what extent *spent fuel storage* impacts property values, as distinct from the alleged impacts of the *presence of a power plant.* He certainly provides no assessment of the incremental environmental impacts of the storage of additional spent fuel that will be created as a result of license renewal.[191] Also, as discussed in Section IV.C.2.b.iii, below, he identifies nothing unique about spent fuel storage at IPEC. With no analysis of the actual environmental impacts of spent fuel storage, or any unique aspects associated with that storage at IPEC, New York has not stated with particularity why the Waste Confidence Rule would not serve its intended purpose of providing a generic determination of the environmental impacts of spent fuel storage.[192] Thus, New York fails to make a *prima facie* case for waiver.

(ii) New York Does Not Demonstrate Special Circumstances

New York must show that the special circumstances it alleges "were *not considered either explicitly or by necessary implication* in the proceeding leading to the rule sought to be waived."[193] The relevant test is not whether New York makes a *prima facie* showing of a potential safety or environmental concern, but whether it has made a "*prima facie* showing that

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190 *See generally* Sipos Declaration, Atts. 11 (Potential Impacts of Indian Point Relicensing on Property Values) ("2007 Sheppard Declaration"), 12 (2009 Sheppard Declaration), 14 (Determinants of Property Values) ("2010 Sheppard Declaration").

191 Thus, New York's assertion that "[i]f relicensing is allowed, the presence of the additional spent fuel generated will have a profound adverse impact on local land use values" is utterly unsupported. Waiver Request at 2.

192 *See Watts Bar*, LBP-10-12, slip op. at 16 (rejecting a waiver request because the supporting affidavit presented the Board "with little, if any, useful information regarding the environmental impact of the proposed action").

193 *Seabrook*, CLI-88-10, 28 NRC at 597 (emphasis added).

the Commission did not previously consider that concern."[194] The Commission has, however, previously considered New York's concerns.

As explained in Section IV.B.1.a, above, New York fails to acknowledge or challenge the existing documented analysis of non-radiological impacts that supports the Waste Confidence Rule. The Commission concluded, in 1984, that "storage of spent fuel will present no significant non-radiological consequences which could adversely affect the environment."[195] New York does not recognize or take issue with this analysis.[196] Thus, New York has not demonstrated that there are special circumstances that were not considered in the underlying rulemaking that might warrant a waiver of the rule, contrary to *Millstone*.[197]

Moreover, in the 2010 Waste Confidence Decision, the Commission explicitly considered New York's claim that off-site land use impacts are inherently site-specific—the very concerns that are now the cornerstone of New York's Waiver Petition. In the rulemaking, New York submitted comments arguing that some of the environmental impacts of spent fuel storage "were inherently site-specific."[198] In support, New York relied upon Dr. Sheppard's declarations submitted in support of Contentions NYS-17 and 17A in this proceeding.[199] The Commission, however, did not incorporate New York's comments into the final rule.[200] New York now relies again upon Dr. Sheppard's analyses in its Waiver Request, effectively seeking reconsideration of

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194 *U.S. Dept. of Energy* (High-Level Waste Repository), LBP-10-22, slip op. at 35 (Dec. 14, 2010).

195 *See* Waste Confidence Decision, 49 Fed. Reg. at 34,665.

196 *See* Section IV.B.1.a, above.

197 *See* CLI-05-24, 62 NRC 559-60.

198 *See* New York's Supplemental Comments at 7.

199 *See id.* at 1213 (*citing* 2007 Sheppard Declaration, 2009 Sheppard Declaration).

200 *See* 2010 Waste Confidence Decision, 75 Fed. Reg. at 81,056-57.

the Commission's rulemaking decision.[201] New York's Waiver Petition must therefore be denied because New York has not met its burden of making a *prima facie* case that there are special circumstances at IPEC that were not considered in the Waste Confidence rulemakings.

(iii) New York Does Not Explain Why There Are Special Circumstances Unique to IPEC

The most obvious and important reason why New York fails to establish a *prima facie* case for waiver is its failure to show why any aspect of spent fuel storage at IPEC is unique. "Special circumstances are present only if the petition properly pleads one or more facts, *not common to a large class of applications or facilities*, that were not considered either explicitly or by necessary implication in the proceeding leading to the rule sought to be waived."[202]

First, New York says nothing in its pleading about the uniqueness of the storage of spent fuel at IPEC, either in the manner in which spent fuel is licensed, stored, monitored, or otherwise.[203] Second, Dr. Sheppard's method is *explicitly* common to a large class of facilities. Indeed, the Blomquist method used by Dr. Sheppard purportedly applies to *all* power plants, not only nuclear facilities.[204] Dr. Sheppard thereby fails to make a *prima facie* case that the alleged impacts of spent fuel storage are somehow unique to IPEC.

The 2011 Sheppard Declaration asserts that IPEC "causes a diminution in the value of nearby residential and commercial property" and refers to his 2007 and 2010 Declarations for details on the methodology for estimation of that diminution.[205] The 2010 Declaration identifies no specific calculation methodology, but the 2007 Declaration explains that Dr. Sheppard has

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201 *See High Level Waste Repository*, LBP-10-22, slip op. at 35-36 (rejecting a waiver petition because, in the underlying rulemaking, the "Commission considered a broad range of information . . . including the types of information identified" in the waiver petition).

202 *Seabrook*, CLI-88-10, 28 NRC at 597 (emphasis added).

203 *See generally* Waiver Request.

204 *See* 2007 Sheppard Declaration at 2-3.

205 *See* 2011 Sheppard Declaration at 2 & n.2 (citing 2007 Sheppard Declaration and 2010 Sheppard Declaration).

relied upon the Blomquist study, which estimated "the impact of power plants *generally* on property values."[206] Dr. Sheppard goes on to explain Blomquist's estimation of the specific decreases in property values that are associated with specific distances from power plants,[207] and why he believes the Blomquist analysis can be applied to nuclear power plants,[208] and then applies the *generic* Blomquist method to analyze property values near IPEC.[209] It appears that the estimations in the 2011 Sheppard Declaration were derived in a similar manner.[210]

New York's general statements in the Waiver Request, however, cannot and do not transform Dr. Sheppard's generic methodology and analysis into special circumstances unique to IPEC. For example, New York points to Dr. Sheppard's 2010 Declaration as purportedly establishing "the kind of localized market considerations that must go into a determination of the land use and land value impacts for any particular site."[211] But while the 2010 Declaration appears to express Dr. Sheppard's opinion that *property values* must be assessed on a site-specific basis, it does not show that the environmental impacts, or even the off-site land use impacts, of IPEC spent fuel storage are in any way unique in comparison to any other nuclear facility or that the localized market concept is in any way unique to IPEC. In fact, under New York's theory, *every* nuclear site with spent fuel storage would present unique special circumstances because it would presumably have unique localized economic consequences.

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206 2007 Sheppard Declaration at 2 (*citing* Glen Blomquist, The Effect of Electric Utility Power Plant Location on Area Property Value, 50 Land Economics, no.1, Feb. 1974, at 97-100.

207 2007 Sheppard Declaration at 2-3.

208 *See id.* at 3-4.

209 *See id.* at 4-6.

210 *See* 2011 Sheppard Declaration at 2 n.2.

211 Waiver Request at 16 (*citing* Sipos Declaration Att. 14, at 5-6).

Such a result is simply illogical and, as explained above, contrary to the Commission's recent findings in the 2010 Waste Confidence Decision.[212]

New York therefore fails to demonstrate the requisite unique nature of its concerns, contrary to 10 C.F.R. § 2.335, so its Waiver Request must be rejected.

(iv) The Sheppard Declarations Do Not Show that a Waiver of the Waste Confidence Rule Is Necessary to Address a Significant Environmental Problem

Finally, New York fails to show that its waiver request is necessary to address a significant environmental problem. As an initial matter, New York's Contention 17B and Waiver Request do not assert that there will be any significant *radiological* harm to the environment caused by spent fuel storage at IPEC.[213] The State instead asserts that the significant environmental problem is that license renewal will "postpone for at least 30 years the recovery of over $500 million of land value for the land adjacent to the plant."[214]

Quite aside from the problem that an estimated dollar figure alone does not demonstrate a *significant environmental problem*,[215] the $500 million figure is misleading. The $500 million

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212 *See* 2010 Waste Confidence Decision, 75 Fed. Reg. at 81,057. And Commissioner Gilinsky's 1983 dissent, of course, represents a view that the Commission rejected in 1983 and continues to reject today. *See* Waiver Request at 16 (*citing* Proposed Rule, Requirements for Licensee Actions Regarding the Disposition of Spent Fuel Upon Expiration of the Reactors' Operating Licenses, 48 Fed. Reg. 22,730, 22,733 (May 20, 1983)). Further, to the extent New York claims that the environmental impacts of spent fuel storage at all plants are inherently site-specific, it is also pursuing such claims in federal court. *See* Entergy Contention NYS-17B Att. 1. Indeed, by filing its Petition for Review jointly with the States of Connecticut and Vermont, New York confirms the generic nature of its challenge to the Waste Confidence Rule and undercuts any assertion that IPEC is somehow unique. *See also* Office of the Attorney General, Media Center, Schneiderman Challenges Feds' New Plan to Dump Nuclear Waste at Indian Point for 60 Years Post-Closure (Feb. 15, 2011) (Entergy Contention NYS-17B Att. 8) ("The Attorney General charges that the NRC violated [the APA and NEPA] when it found . . . that no significant safety or environmental impacts will result from storing highly radioactive nuclear wastes onsite at the *more than 100 operating reactors* around the country . . . .") (emphasis added).

213 *See* Waiver Request at 4, 5, 6 (discussing alleged "non-radiological" impacts).

214 Waiver Request at 17.

215 *See Tongass Conservation Soc'y v. Cheney,* 924 F.2d 1137, 1144 (D.C. Cir. 1991) (holding that socioeconomic impacts are only relevant under NEPA when they are "interrelated" with "physical environmental effects").

figure is Dr. Sheppard's original estimate of the increase in property values if IPEC did not exist in 2007.[216] Clearly, this is not a realistic or useful analysis.

Even Dr. Sheppard's 2011 Declaration does not show that there is a significant environmental problem. As noted above, even without license renewal Entergy is planning to maintain IPEC in SAFSTOR until about 2064 or 2065.[217] Thus, there is no basis to accept Dr. Sheppard's "baseline" scenario, in his more recent declaration, that site reclamation (*including* spent fuel removal) will be completed by 2047.[218] Because the baseline scenario is unrealistic, counterfactual and, perhaps impossible, there is only one potentially reasonable "apples-to-apples" comparison that Dr. Sheppard presents that can be taken to illustrate *his* analysis of the effects of license renewal.[219] That is a comparison of the "first alternative" scenario (end of reactor operations in 2015, followed by 62-year decommissioning period) and the "third alternative" (end of reactor operations in 2035, followed by a 72-year decommissioning period).[220] The difference in the present value of Dr. Sheppard's estimated total "cost" of those two scenarios is approximately $52 million, or the approximate value of two years of Entergy's PILOT payments to local communities.[221] Neither New York nor Dr. Sheppard explains how this dollar figure reflects a *significant environmental problem.*

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216 *See* 2011 Sheppard Declaration at 1 (referring to the 2007 Sheppard Declaration, which "provided a preliminary estimate of the impact of the continued presence" of IPEC on the combined value of nearby property, and estimated the impact to be "at least $576,026,601").

217 *See supra* note 123.

218 *See* 2011 Sheppard Declaration at 3-4 (2047 is based on the cessation of operations in 2015, followed by a "2-year preparation period followed by 30 years of work at [waste] removal, based on a rate of 3000 metric tons of uranium per year").

219 Entergy does not agree with Dr. Sheppard's estimates of the impact of IPEC on property values, the duration of decommissioning or spent fuel removal activities, or any other aspect of Dr. Sheppard's evaluation. The example in this section is only intended to illustrate key aspects of Dr. Sheppard's analysis.

220 *See* 2011 Sheppard Declaration at 4. As previously noted, the ten-year difference in the period for spent fuel removal is based on the now-irrelevant FSEIS for Yucca Mountain. For this additional reason, Dr. Sheppard's scenarios are unsupported and invalid.

221 *See id.* at 4-6.

Nor does New York show, as it must, that a waiver is *necessary* to address its alleged problem.[222] As previously noted, New York, along with two other states, has separately petitioned the U.S. Court of Appeals for the District of Columbia Circuit to review and overturn the Commission's determination that the environmental impacts of spent fuel storage are not inherently site-specific.[223] New York is also free to submit a rulemaking petition under 10 C.F.R. § 2.802. Because New York has other, more appropriate avenues to address its concerns, certification of its Waiver Petition is inappropriate.

* * *

For all these reasons, New York's Waiver Request fails to make the requisite *prima facie* showing that all four parts of the *Millstone* test are met. Thus, the Board must deny certification to the Commission.

V. CONCLUSION

For the reasons set forth above, Entergy opposes New York's Waiver Request because it fails to make the required *prima facie* showing under 10 C.F.R. § 2.335. Entergy also opposes the admission of NYS-17B as it raises issues that are untimely, outside scope, immaterial, unsupported, or that fail to raise a genuine dispute.

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222 *See Millstone*, CLI-05-24, 62 NRC 559-60.

223 *See* Entergy Contention NYS-17B Att. 1.

CERTIFICATION OF COUNSEL UNDER 10 C.F.R. § 2.323(b)

Counsel for Entergy certifies that he has made a sincere effort to make himself available to listen and respond to the moving parties, and to resolve the factual and legal issues raised in the motion, and that his efforts to resolve the issues have been unsuccessful.

Respectfully submitted,

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Dated in Washington, D.C.
this 18th day of February 2011

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	Docket Nos. 50-247-LR and 50-286-LR
ENTERGY NUCLEAR OPERATIONS, INC.	)	
(Indian Point Nuclear Generating Units 2 and 3)	)	
	)	February 18, 2011

CERTIFICATE OF SERVICE

I hereby certify that copies of the "Applicant's Answer to Proposed Amended Contention New York State 17B and the Associated Request for Exemption and/or Waiver of 10 C.F.R. § 51.23(b)" and its associated attachments were served this 18th day of February, 2011 upon the persons listed below, by first class mail and e-mail as shown below.

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TABLE OF ENTERGY CONTENTION NYS-17B ATTACHMENTS

Attachment	No.
Petition for Judicial Review of Administrative Agency Action *New York v. NRC*, No. 11-1045 (D.C. Cir. filed Feb. 15, 2011)	1
NRC Management Directive 9.17 (Sept. 12, 1991) (excerpts)	2
NRC Management Directive 9.27 (July 13, 1989) (excerpts)	3
Entergy Preliminary Decommissioning Cost Analysis for the Indian Point Energy Center, Unit 3 (Dec. 2010) (excerpts)	4
NUREG-1437, Vol. 1, Generic Environmental Impact Statement for License Renewal of Nuclear Plants (May 1996) (excerpts)	5
Letter from J. Pollock, Entergy, to NRC, "Indian Point Center Registration of Unit 2 Spent Fuel Cask Use" (Feb. 5, 2008)	6
NRC Memorandum from A. Cook, SECY, to Licensing Board Members, "FUSE Request to Include Category 1 Issues in the Indian Point 2 and 3 License Renewal Environmental Scoping Process" (Nov. 13, 2007)	7
New York Attorney General, Press Release, "Schneiderman Challenges Feds' New Plan to Dump Nuclear Waste at Indian Point for 60 Years Post-Closure" (Feb. 15, 2011)	8

UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

----------x

THE STATE OF NEW YORK,
THE STATE OF VERMONT, and
THE STATE OF CONNECTICUT,

11-1045

Petitioners,

-against-

No. 11-_____ -ag

UNITED STATES NUCLEAR
REGULATORY COMMISSION, and
UNITED STATES OF AMERICA,

Respondents.

----------x

PETITION FOR JUDICIAL REVIEW OF ADMINISTRATIVE AGENCY ACTION

Pursuant to § 189 of the Atomic Energy Act, 42 U.S.C. § 2239, 28 U.S.C. §§ 2341-2344; the Administrative Procedure Act, 5 U.S.C. § 551 *et seq.*; and Rule 15 of the Federal Rules of Appellate Procedure, the petitioners, the State of New York, by its attorney, Eric T. Schneiderman, Attorney General of the State of New York; the State of Vermont, by its attorney, William H. Sorrell, Attorney General of the State of Vermont; and the State of

Connecticut, by its attorney, George Jepsen, Attorney General of the State of Connecticut, hereby petition this Court for review of the United States Nuclear Regulatory Commission's ("NRC") Consideration of Environmental Impacts of Temporary Storage of Spent Fuel After Cessation of Reactor Operation rule ("Temporary Storage Rule") and affiliated Waste Confidence Decision Update, both issued December 23, 2010. *See* 75 Fed. Reg. 80132 (Dec. 23, 2010); 75 Fed. Reg. 80137 (Dec. 23, 2010) (both attached to this petition). The NRC acted arbitrarily, abused its discretion, and violated the National Environmental Policy Act, the Administrative Procedure Act, the Atomic Energy Act, the Commission's policies and regulations, the Council on Environmental Quality's regulations, and other applicable laws and regulations in promulgating these rules and findings.

The State of New York, jointly with the State of Vermont and the Commonwealth of Massachusetts, and the State of Connecticut, through their respective Attorneys General, submitted extensive comments on both the draft Temporary Storage Rule and the draft Waste Confidence Decision Update in

February 2009. The State of New York also submitted supplemental comments on February 9, 2010. As the NRC published notice of these rules in the Federal Register on December 23, 2010, this filing is within the Hobbs Act's 60-day statute of limitations and is timely. 28 U.S.C. § 2344.

Venue is appropriate within the D.C. Circuit pursuant to 28 U.S.C. § 2343. Therefore, the States of New York, Vermont, and Connecticut respectfully request that this Court review the NRC's Temporary Storage Rule and Waste Confidence Decision Update, vacate both, and remand the matter to the NRC for further analysis and the preparation and issuance of an environmental impact statement, and grant any other relief that the Court may deem just and appropriate.

Dated: February 14, 2011
New York, New York

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U.S. NUCLEAR REGULATORY COMMISSION

DIRECTIVE TRANSMITTAL

TN: DT-91-28

To:	Branch Chiefs and Above
Subject:	Transmittal of Directive 9.17, Office of the Executive Director for Operations
Purpose:	Directive and Handbook 9.17 replace Manual Chapter and Appendix 0103 and have been revised to reflect the Chief Financial Officers Act of 1990 and the OMB-approved Organization and Functions of the Chief Financial Officer of the U.S. Nuclear Regulatory Commission dated April 12, 1991. Congress passed the Chief Financial Officers (CFOs) Act to bring more effective general and financial management practices to the Federal Government. Among other requirements, the Act requires that all cabinet departments and nine specified agencies, including the NRC, have CFOs who report directly to the head of the agency. The CFO oversees all accounting, budgeting, and other financial management activities of the agency. Specifically, Management Directive 9.17 designates the Executive Director for Operations as the CFO of the agency.
Office of Origin:	Office of the Executive Director for Operations
Contact:	Ken Raynor, 49-24691
Date Approved:	September 12, 1991
Volume:	9 NRC Organization and Functions
Directive:	9.17 Organization and Functions, Office of the Executive Director for Operations

OFFICE OF ADMINISTRATION

Availability: Rules and Directives Branch
Office of Administration
Michael T. Lesar, (301) 415-7163
Christy Moore, (301) 415-7086

Organization and Functions Office of the Executive Director for Operations

Directive

(Formerly MC 0103) **9.17**

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Office of the Executive Director for Operations
Directive 9.17

Organization and Functions

Supervision
(9.17-01)

Under the supervision of the Executive Director for Operations (EDO) who reports for all matters to the Chairman and is subject to the supervision and direction of the Chairman as provided in Reorganization Plan No. 1 of 1980. The EDO is governed by the general policies of the Commission and by the regulatory decisions, findings, and determinations that the Commission makes as authorized by law. The EDO, through the Chairman, shall ensure that the Commission is fully and currently informed about matters within its functions.

Functions
(9.17-02)

The EDO, subject to other provisions of this directive, is specifically responsible for —

- Supervising, directing, coordinating, and approving the activities of the offices reporting to the EDO and Deputy Executive Directors. (021)

Functions

(9.17-02) (continued)

- Distribution of business among the offices that report to the Office of the EDO. (022)

- Performing the functions of the agency Chief Financial Officer (CFO) as specified in 31 U.S.C. 902(a) and in the OMB-approved Organization and Functions of the Chief Financial Officer of the U.S. Nuclear Regulatory Commission dated April 12, 1991. (023)

- Administrative functions of the Commission, that include resolving Equal Employment Opportunity and grievance matters and providing support services. (024)

- Preparation for Commission consideration of— (025)

  – The budget estimate for the Commission. (a)

  – The proposed distribution of appropriated funds according to major programs and purposes. (b)

  – Proposals for reorganization of the major offices that report to the Office of the EDO. (c)

- Consulting with the Chairman before the Chairman's initiation of the appointments of the Directors of Nuclear Reactor Regulation (NRR), Nuclear Material Safety and Safeguards (NMSS), and Nuclear Regulatory Research (RES), and the Deputy CFO and Controller (DCFO/C). (026)

- Appointing and removing, after consultation with the Chairman and without any further action by the Commission, all Directors of the offices reporting to the EDO and Deputy Executive Directors except the Directors of NRR, NMSS, and RES, and the Deputy CFO and Controller (DCFO/C). (027)

Functions

(9.17-02) (continued)

- Developing and approving delegations of authority for offices reporting to the EDO and Deputy Executive Directors. (028)

- Responding to the requests of members of the Commission for access to information. (029)

- Ensuring that the Commission, through the Chairman, is fully and currently informed about matters within its functions. (0210)

- Performing any other matter or function explicitly assigned by the Commission or the Chairman. Any matter or function not explicitly assigned to the EDO is reserved to the Chairman unless otherwise delegated to the Commission by Reorganization Plan No. 1 of 1980. (0211)

- Executing contracts, agreements, or interagency actions subject to the limitations in paragraph 032 of this directive. (0212)

- Developing and promulgating rules, as defined in subparagraph 4 of Section 551 of the Administrative Procedure Act (5 U.S.C. 551.(4)), subject to the limitations in paragraphs 038, 039, and 0310 of this directive. The EDO shall notify the Commission before submitting a final rule to the *Federal Register.* (0213)

- Issuing subpoenas under Section 161c of the Atomic Energy Act of 1954, as amended, where necessary or appropriate for the conduct of inspections or investigations. (0214)

- Exercising the Commission's authority to take enforcement or other action under 10 CFR Part 2, Subpart B. (0215)

Functions

(9.17-02) (continued)

- Determining that all declassification criteria are met for all Licensed Fuel Facility Status Reports for Inventory Difference Data (NUREG-0430) and issuing these reports after Commission approval by a Commission negative consent paper. (0216)

Delegation of Authority to the Executive Director for Operations

(9.17-03)

The EDO is the chief operating and administrative officer of the Commission and the Chief Financial Officer. Except as otherwise provided by law, regulation, Commission action, or action by the Chairman, the EDO reports to and is supervised by the Chairman as provided in Directive 9.17-01. The EDO is authorized and directed to discharge all regulatory (including but not limited to licensing and enforcement), financial management, and administrative functions of the NRC and to act as necessary to carry out the functions and execute the authorities assigned by this directive, directives of offices reporting to the EDO and the Deputy Executive Directors, the OMB-approved Organization and Functions of the Chief Financial Officer of the U.S. Nuclear Regulatory Commission dated April 12, 1991, or other official directives or communications.

In connection with duties as the agency CFO, the EDO is specifically authorized to have access to all records, reports, audits, reviews, documents, papers, recommendations, or other material that are the property of the agency or that are available to the agency, and that relate to programs and operations with respect to which the CFO has responsibilities (except for Inspector General material not otherwise accessible under applicable laws) (reference 31 U.S.C. 902(b)). Further, the EDO is specifically authorized to review all major legislative and other programmatic

Delegation of Authority to the Executive Director for Operations

(9.17-03) (continued)

proposals (including those from offices which report directly to the Chairman or the Commission) in order to provide advice to the Chairman and the Commission on Federal cost and benefit estimates.

Limitations placed on the authority of the EDO require that the EDO (see Handbook 9.17, Part II for further limitations)—

- Present all significant questions of policy to the Commission for resolution, and with respect to these questions, present all major views of the affected offices to the Commission. (031)

- Submit to the Chairman or Commission, as appropriate, for approval contracts, agreements, or interagency actions required by law, including authorization statutes, or regulation to be approved by the Chairman or Commission. The EDO shall provide to the Chairman a five-day notice of cancellations by the EDO of contracts previously approved by the Chairman. The EDO shall submit to the Chairman, for approval, all contracts for $3,000,000 or more, or with an estimated cost of $750,000 or more involving a topic on the Commission's priority list or not covered by the Five-Year Plan. (032)

- Shall not delegate those non-delegable functions described in Section 161n of the Atomic Energy Act of 1954, as amended (NRC Handbook 9.17, Part II). (033)

- Limit approval of employment of an individual by the NRC before completion of the security investigation and reports required by Section 145b of the Atomic Energy Act of 1954, as amended, to situations in which an individual will be precluded from access to Restricted Data or National Security Information through administrative procedures, and that the EDO approve this employment only upon receipt of an

Delegation of Authority to the Executive Director for Operations

(9.17-03) (continued)

affirmative recommendation from the Director, Division of Security, and a clear showing of need by the requesting organization. This authority may not be redelegated. (034)

- Shall submit to the Commission, through the Chairman, any information transmitted to the NRC by the Special Counsel pursuant to 5 U.S.C. 1213(c)(l), 1213(g)(l), 1213(g)(2), or 1214(d) and 1214(e) (relating to certain disclosures of information to the Special Counsel regarding an agency's operations or alleged violation of certain laws by agency officials). The EDO shall also submit any report, communication, or certification required of the head of the agency pursuant to 5 U.S.C. 1213(c)(l)(B), 1213(g)(l), 1213(g)(2), or 1214(e) to the Commission, through the Chairman, for review and signature of the Chairman. (035)

- Shall submit to the Commission for approval any export license application involving activities specified in 10 CFR 110.40(b) as well as similar activities in the following export-related areas that are not subject to NRC licensing, but on which the Nuclear Non-Proliferation Act (NNPA) requires NRC consultation—(036)

  - Subsequent arrangements under Section 131 of the Atomic Energy Act of 1954, as amended (the AEA); (a)

  - Activities covered by Section 57b of the AEA; (b)

  - Exports licensed by the Department of Commerce and subject to the provisions of Section 309(c) of the NNPA; (c)

  - Agreements for Cooperation under Section 123 of the AEA; (d) and

Delegation of Authority to the Executive Director for Operations

(9.17-03) (continued)

- Government-to-Government transfers subject to Section 54d and 64 of the AEA. (e)

- Shall submit to the Chairman for signature correspondence to State and Federal officials that involves major new policy questions and all correspondence to the President and Chairpersons of the Oversight Committees and shall submit to the Commission for consideration correspondence that involves significant matters of policy. (037)

- Shall subject all rulemaking to general policy guidance from the Commission. (038)

- In addition to these limitations, the EDO's delegated authority under paragraph 0213 of this directive does not extend to the promulgation of proposed or final rules that involve significant questions of policy. (039)

- The EDO's delegated authority, under paragraph 0213 of this directive, to develop and promulgate rules applies to 10 CFR Parts 7, 8, and 9 Subpart C, only if the proposed or final rules or amendments to these parts do not raise policy issues or are corrective in nature. Before promulgating a proposed or final rule modifying Part 2, the EDO shall obtain the concurrence of the Office of the General Counsel, the Office of Commission Appellate Adjudication, and the Chief Administrative Judge of the Atomic Safety and Licensing Board Panel. If any office fails to concur, the proposed action is to be referred to the Commission. (0310)

9.27

Form NRC-489
(1-76)

U. S. NUCLEAR REGULATORY COMMISSION
NRC MANUAL
TRANSMITTAL NOTICE

CHAPTER NRC-0123 ORGANIZATION AND FUNCTIONS
OFFICE OF NUCLEAR REACTOR REGULATION

SUPERSEDED:	Number	Date	TRANSMITTED:	Number	Date
			TN	0100-96	
Chapter	NRC-0123	6/29/87	Chapter	NRC-0123	7/13/89
Page			Page		
Appendix	NRC-0123	6/29/87	Appendix	NRC-0123	7/13/89

REMARKS:

This revision of Chapter and Appendix NRC-0123 reflects the transfer of Office of Special Projects functions and responsibilities to the Director, NRR, effective January 1, 1989 and changes which resulted from the EDO reorganization, effective February 5, 1989.

CHAPTER 0123 ORGANIZATION AND FUNCTIONS OFFICE OF NUCLEAR REACTOR REGULATION

0123-01 SUPERVISION

The Office of Nuclear Reactor Regulation is headed by a Director who reports to the Deputy Executive Director for Nuclear Reactor Regulation, Regional Operations and Research.

0123-02 FUNCTIONS

Has principal responsibility for implementing regulations, and developing and implementing policies, programs, and procedures for all aspects of licensing and inspection of:

a. production and utilization facilities, except for those concerning fuel reprocessing plants and isotopic enrichment plants;

b. receipt, possession, and ownership of source, byproduct, and special nuclear material used or produced at facilities licensed under 10 CFR Part 50;

c. operators of such facilities;

d. emergency preparedness at such facilities; and

e. contractors and suppliers of such facilities.

Identifies and takes action regarding conditions and license performance that may adversely affect public health and safety, the environment, or the safeguarding of nuclear facilities; and assesses and recommends or takes action regarding incidents or accidents. Provides special assistance as required in matters involving reactor facilities exempt from licensing. Provides guidance and implementation direction to Regional Offices on reactor licensing and inspection programs assigned to the Regions, and appraises Regional program performance in terms of effectiveness and uniformity. Performs other functions required for implementation of the reactor licensing and inspection programs.

Specifically, the Office:

021 reviews, evaluates, and processes all aspects of applications for licenses and amendments to such licenses for:

a. the construction, operation, safeguarding, and environmental protection of utilization and production facilities subject to licensing, except for fuel reprocessing plants and isotopic enrichment plants; and

b. operator licenses at such facilities.

022 reviews and evaluates emergency plans associated with construction permits and operating licenses (OLs) and amendments to OLs for reactors. Reviews and evaluates Federal Emergency Management Agency's (FEMA) findings and determinations relating to offsite responses by State and local governments. Develops overall NRC evaluation of reactor licensee/applicant onsite/offsite emergency preparedness plans.

023 reviews and evaluates the safeguards performance of reactor licensees and the adequacy of existing safeguards requirements for licensed reactor facilities, including the conduct of onsite reviews and adequacy assessments, and ensures the development and adequacy of licensee-level safeguards contingency plans for licensed reactor facilities.

024 conducts the indemnification program in accordance with the provisions of the Price Anderson Act, including Section 170.C and K of the Atomic Energy Act of 1954, as amended.

025 reviews, evaluates, and makes safety findings on problems and incidents that result from the construction and operation of utilization and production facilities subject to licensing, except for fuel reprocessing plants and isotopic enrichment plants.

026 develops policies, regulations, and procedures regarding prompt identification of reactor generic problems. Evaluates notifications and information concerning events at NRC reactor licensees through systematic review and analysis performed by NRR and other Offices, and develops and disseminates generic correspondence regarding their technical resolution.

027 develops and administers programs and procedures for implementation of the Commission's policy on standardization (10 CFR Part 50, Appendixes M, N, and O) of utilization and production facilities other than fuel reprocessing plants and isotopic enrichment plants; and reviews, evaluates, and processes applications for licenses and amendments to such licenses in accordance with such policies.

028 develops and directs the implementation of policies and programs for Regional inspection of NRC reactor licensees, applicants for an NRC reactor license, and contractors and suppliers to NRC licensees, to ensure compliance with NRC requirements for public health and safety, the environment, protection against radiological sabotage, and protection of material from diversion to unauthorized uses.

029 performs special inspections of NRC reactor licenses and applicants, and contractors and suppliers to NRC licensees and applicants.

0210 exercises oversight of all reactor inspection and licensing programs in the Regions. Provides programmatic and implementation direction to Regional Offices in the conduct of reactor inspection and licensing programs.

Approved: July 13, 1989

0211 prepares and issues, in conjunction with the Deputy Executive Director for Nuclear Reactor Regulation, Regional Operations and Research, delegations and assignments of authority to Regional Administrators for the implementation of specific Office of Nuclear Reactor Regulation (NRR) programs described in Chapter NRC-0123-03. Establishes broad policy guidance and criteria for implementation of each of these NRR programs in the Regions. Assesses the effectiveness of each established program and determines whether the Regions are implementing the programs in a technically adequate and consistent manner, and whether program requirements are being met.

0212 develops and implements a comprehensive NRC program for the inspection of vendors throughout the U.S. and foreign countries who supply goods and services to NRC-licensed reactor projects/facilities.

0213 ensures that a comprehensive quality assurance program is applied to design, fabrication, construction, testing, and operation of licensed nuclear reactor facilities in accordance with NRC requirements. This encompasses licensees, vendors, architect-engineers, constructors, and other licensee agents.

0214 evaluates, as requested, the nuclear safety aspects of proposals to build or significantly modify any DOE-owned reactor, reactor-related facility, or other system exempt from licensing.

0215 evaluates, as requested, the nuclear safety aspects of the design of Department of Defense (DOD) power, testing, and research reactors exempt from licensing; and reviews and evaluates the health and safety aspects of the location and operation of reactor facilities of the DOD and their general nuclear safety standards and instructions.

0216 provides advice and assistance to the Office of Nuclear Regulatory Research (RES) in the development of regulations, standards, guides, codes, and policies, and resolution of generic safety issues.

0217 identifies research needs required for NRR programs and makes appropriate recommendations to RES.

0218 serves as the principal point of contact for the NRC with the Advisory Committee on Reactor Safeguards for matters under review by NRR.

0219 coordinates with States on guidance for need for power determination.

0220 develops procedures to assure the timely scheduling, review, and processing of all matters under review by the Office.

0221 supervises, directs, coordinates, and approves the activities, including administrative functions, of the various organizational units within the Office.

0222 performs such other functions as may be assigned.

Approved: July 13, 1989

0123-03 DELEGATION OF AUTHORITY TO THE DIRECTOR

The Director is authorized and directed to:

031 take such action as is necessary to carry out the functions assigned by this chapter or other official directives or communications, subject to the limitations prescribed therein. (Delegations of authority for specific actions and applicable limitations are contained in manual chapters or other directives covering specific subjects. In addition, delegations of authority for actions not within the scope of other manual chapters or other directives are given in succeeding paragraphs in this section.)

032 take action to:

a. issue, renew, and amend licenses for manufacture, construction, possession, use, acquisition, and operation of utilization and production facilities other than fuel reprocessing plants and isotopic enrichment plants required by the Atomic Energy Act of 1954, as amended; sections 202(1), 202(2), and 203 of the Energy Reorganization Act of 1974; and 10 CFR Part 50, including amendments to such licenses with respect to safeguards matters and transportation within the site boundary;

b. issue, renew, and amend licenses for operators of utilization and production facilities, except for fuel reprocessing plants and isotopic enrichment plants; and

c. issue and amend limited work authorizations pursuant to 10 CFR section 50.10(e);

except where the decision rests with an Administrative Law Judge, an Atomic Safety and Licensing Board, the Atomic Safety and Licensing Appeal Board, or the Commission, after a hearing pursuant to 10 CFR Part 2. This authority may include the licensing of byproduct, source, and special nuclear material used or produced in, and used in the operation of or stored at, utilization and production facilities other than fuel reprocessing and isotopic enrichment plants.

033 issue amendments to licenses changing the technical specifications for utilization and production facilities other than fuel reprocessing plants and isotopic enrichment plants; authorizing changes in the facility or facility procedures; or authorizing the conduct of tests and experiments, in accordance with 10 CFR Part 50.

034 consistent with NRC regulations, grant exemptions from NRC regulations or impose special conditions on licensees of utilization and production facilities, except for fuel reprocessing plants and isotopic enrichment plants.

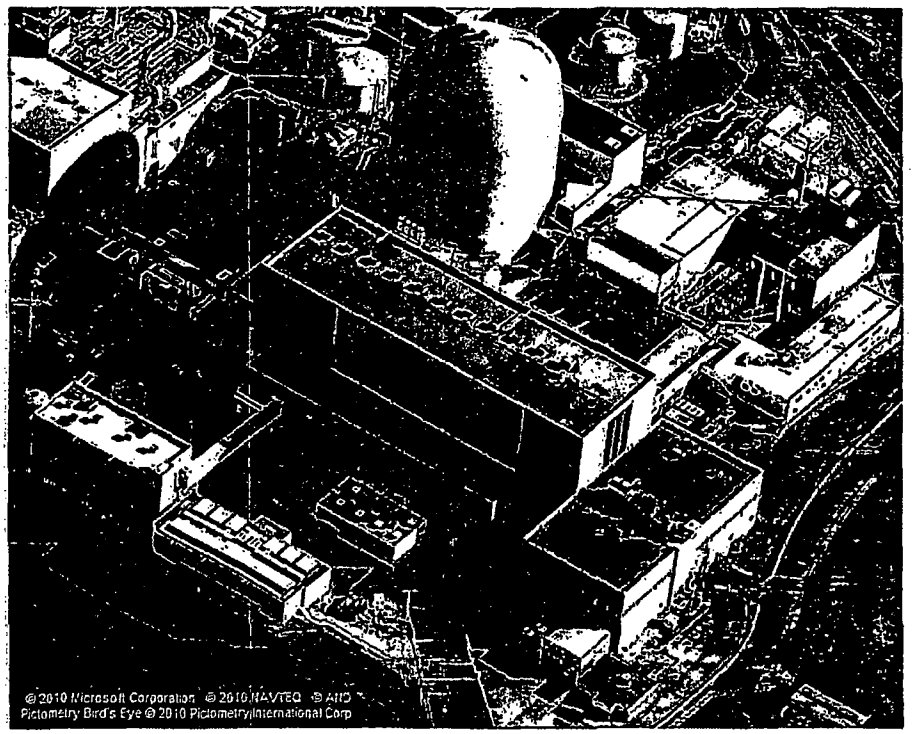
035 issue, pursuant to 10 CFR Part 2, notices of denial or the proposed denial of: (a) applications for licenses for utilization and production facilities, except for fuel reprocessing plants and isotopic enrichment plants; (b) applications for operator licenses for utilization and production

Document E11-1583-006

PRELIMINARY DECOMMISSIONING COST ANALYSIS

for the

INDIAN POINT ENERGY CENTER, UNIT 3



prepared for

Entergy Nuclear

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Bridgewater, Connecticut

December 2010

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1. DECOMMISSIONING COST ANALYSIS

This document presents the cost to decommission the Indian Point Energy Center, Unit 3 (IP-3) assuming a cessation of operations after a nominal 40-year operating life in 2015. In accordance with the requirements of 10 CFR 50.75(f)(3), the cost estimate includes an assessment of the major factors that could affect the cost to decommission the IP-3 nuclear unit.

The cost to decommission IP-3 is estimated at $1,141.9 million. The cost is presented in 2010 dollars.

The estimate for IP-3 assumes that it is decommissioned in conjunction with the two adjacent units (the shutdown IP-1 and the currently operating IP-2). As such, there are savings as well as additional costs that are reflected within the estimate from the synergies of site decommissioning and the constraints imposed in working on a complex and congested site. In apportioning site decommissioning costs by unit, not all common costs are shared equitably due to the offset in shutdown dates and some costs elements are impacted by activities or previous operations at the adjacent units.

The cost includes the monies anticipated to be spent for operating license termination, spent fuel storage and site remediation activities. The cost is based on several key assumptions in areas of regulation, component characterization, high-level radioactive waste management, low-level radioactive waste disposal, performance uncertainties (contingency) and site remediation and restoration requirements. Many of these assumptions are discussed in more detail in this document.

Entergy intends to fund the expenditures for license termination (comprising approximately 73% of the total cost) from the decommissioning trust fund currently held by the New York Power Authority (NYPA).[1] The management of the spent fuel, until it can be transferred to the DOE, may be funded from excess trust fund earnings and from proceeds from spent fuel litigation against the Department of Energy (DOE). Expenditures from the trust fund for the management of the spent fuel will not reduce the value of the decommissioning trust fund to below the amount necessary to place and maintain the reactor in safe storage. The licensee would make the appropriate submittals for an exemption, in accordance with 10 CFR 50.12, from the requirements of 10 CFR 50.82(a)(8)(i)(A) in order to use the decommissioning trust funds for non-decommissioning related expenses, as defined by 10 CFR 50.2.

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1 The decommissioning liability is currently retained, and the trust fund held, by NYPA. This analysis assumes that NYPA will exercise its option to transfer the liability along with the decommissioning trust fund for IP-3 to Entergy on December 12, 2015, in accordance with the terms of the decommissioning agreement for IP-3 between Entergy and NYPA.

the decommissioning process.[6] The amendments allow for greater public participation and better define the transition process from operations to decommissioning. Regulatory Guide 1.184, issued in July 2000, further described the methods and procedures that are acceptable to the NRC staff for implementing the requirements of the 1996 revised rule that relate to the initial activities and the major phases of the decommissioning process. The cost estimate for IP-3 follows the general guidance and sequence presented in the amended regulations.

1.3 BASIS OF COST ESTIMATE

For the purpose of the analysis, IP-3 was assumed to cease operations in December 2015, after 40 years of operations. The unit would then be placed in safe-storage (SAFSTOR), with the spent fuel relocated to an Independent Spent Fuel Storage Installation (ISFSI) to await transfer to a DOE facility. Based upon a 2020 start date for the pickup of spent fuel from the commercial nuclear power generators, Entergy anticipates that the removal of spent fuel from the site could be completed by the year 2047.[7] However, for purposes of this analysis, the plant will remain in storage until 2065, at which time it will be decommissioned and the site released for alternative use without restriction. This sequence of events is delineated in Figure 2, along with major milestone dates.

The decommissioning estimate was developed using the site-specific, technical information relied upon in a decommissioning assessment prepared in 2007 for the site and used as a basis for the preliminary decommissioning cost analyses filed for IP-1 and IP-2.[8] The economic basis was reviewed for the current analysis and updated to reflect current site costs and budgets. The site-specific considerations and assumptions used in the previous evaluation were also revisited. Modifications were incorporated where new information was available.

1.4 METHODOLOGY

The methodology used to develop the estimate followed the basic approach originally presented in the AIF/NESP-036 study report, "Guidelines for

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6 U.S. Code of Federal Regulations, Title 10, Parts 2, 50, and 51, "Decommissioning of Nuclear Power Reactors," Nuclear Regulatory Commission, Federal Register Volume 61, (p 39278 et seq.), July 29, 1996.

7 Use of the 2020 DOE start date is discussed in Section 2 of the licensee's 10 CFR 50.54(bb) filing submitted concurrently with this cost estimate.

8 Entergy Letter NL-08-144, dated October 27, 2008, "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).

NUREG–1437
Vol. 1

Generic Environmental Impact Statement for License Renewal of Nuclear Plants

Main Report

Final Report

U.S. Nuclear Regulatory Commission

Office of Nuclear Regulatory Research

NUREG–1437
Vol. 1

Generic Environmental Impact Statement for License Renewal of Nuclear Plants

Main Report

Final Report

Manuscript Completed: April 1996
Date Published: May 1996

Division of Regulatory Applications
Office of Nuclear Regulatory Research
U.S. Nuclear Regulatory Commission
Washington, DC 20555–0001

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(AIF/NESP-032; EPRI NP-5983). Extended burnup has not resulted in a higher incidence of failed fuel rods or breached cladding (EPRI NP-3765; SR/CNEAF/94-01). Several plants in the study sample are using or contemplating longer burnup (see Table 6.16).

Indian Point 2 is reracking its fuel pool for storage through 2007. Dry storage, rod consolidation, and longer burnup also will be considered. Vermont Yankee and Cook have reracked their pools to provide higher-density packing and are considering additional reracks. Limerick intends to rerack its pool to permit storage until 2011 at Unit 2 and until 2012 at Unit 1. If dry storage is undertaken, current economics favor the use of concrete casks at Limerick. If no repository is available after 2011, Limerick will employ a combination of dry storage and rod consolidation. Because of initial use of high-density fuel racks, WNP-2 plans no reracking. Surry's current ISFSI will be full by 2010, necessitating consideration of other options during the remainder of the plant's current license, including longer fuel burnup (the plant currently operates on an 18-month cycle) and possible construction of two additional storage pads for dry storage of spent fuel.

6.4.6.2 Effects of License Renewal

During the period encompassed by plant life extension, the amount of spent fuel generated annually by nuclear power plants will be a function of each plant's refueling schedule. The amount of spent fuel generated will be roughly proportional to the electrical energy produced by each plant. If all currently operating plants were to request renewed licenses, annual spent fuel generation should be comparable to those amounts generated under original licenses. Thus, total accumulated volumes of spent fuel after an additional 20 years of operation would amount to 50 percent more fuel than at the end of 40 years of operation (DOE/RW-0006). Projections of spent-fuel generation depicted in Table 6.15 are conservative estimates that do not account for nuclear plant life extension.

Under the Waste Confidence Rule, NRC has determined that spent fuel can be stored on-site for at least 30 years beyond the licensed (and license renewal) operating life of nuclear power plants safely and with minimal environmental impact (54 FR 39765; 55 FR 38472). This decision does not address the environmental impacts of storage during the additional 20 years of operation after license renewal. The additional spent fuel generated during this 20-year period poses three potential issues.

First, under the Nuclear Waste Policy Act of 1982 (NWPA) as amended, DOE is authorized to dispose of up to 70,000 metric tonnes of heavy metal (MTHM) in the first repository before granting a construction authorization for a second. Under existing licenses, projected spent-fuel generation could exceed 70,000 MTHM as early as the year 2010. Possible extensions or renewals of operating licenses also need to be considered in assessing the need for and scheduling the second repository. It now appears that unless Congress lifts the capacity limit on the first repository—and unless this repository has the physical capacity to dispose of all spent fuel generated under both the original and extended or renewed licenses—it will be necessary to have at least one additional repository. Assuming that the first repository is available by 2025 and has a capacity on the order of 70,000 MTHM,

additional disposal capacity would probably not be needed before about the year 2040 to avoid storing spent fuel at a reactor for more than 30 years after expiration of reactor operating licenses.

Second, the NWPA prohibits the opening of an MRS until a permanent repository has been selected and constructed (Pub. L. 97-425). Moreover, the findings of environmental assessments for the MRS and permanent repository must be incorporated in facility design (DOE/RW-0187; GAO/RCED-90-103). Both of these requirements could cause additional delays in the availability of an MRS or permanent repository, necessitating longer on-site storage of the additional spent fuel. Current efforts to identify a host site for an MRS are unlikely to provide for a completed facility by 1998 (GAO/RCED-91-194).

Third, plant refurbishment during license renewal may also adversely affect spent-fuel storage capacity. Utilities may use fuel pools for interim storage of reactor components, as is being done at Vermont Yankee.

During the license renewal period, utilities will focus increasingly on dry storage methods for spent fuel. Either wet or dry storage would meet NRC's Waste Management Confidence Decision Review (49 FR 171; 10 CFR 50 and 51; 54 FR 187), but dry storage is growing in favor because it is more stable. Enlarging spent-fuel racks, adding racks to existing pool arrays, reconfiguring spent fuel with neutron-absorbing racks, and employing double-tiered storage will continue to be pursued; however, above-ground dry storage, utility sharing of spent fuel, and increased fuel burnup to reduce spent-fuel volumes will be the most favored methods until a permanent off-site repository or MRS becomes available, as shown by the study sample and industry-wide survey (Roberts 1987; Mullen et al. 1988; Zacha 1988; Johnson 1989; Fisher 1988).

Industry experience with spent-fuel storage, coupled with supplemental studies of the integrity of pool and dry storage systems, indicates that spent fuel generally can be stored safely on site with minimal environmental impacts (55 FR 38474; NUREG-1092). However, a maintenance concern with spent-fuel pools at permanently closed power plants was identified recently (*Nuclear Waste News* 1994). In January 1994, at the permanently shutdown (since 1978) Dresden Unit 1, a large amount of pool water leaked from a frozen service-water pipe located in the unheated containment building. Because the spent fuel had cooled for 15 years, lowering the pool water depth in this case did not cause significant increases in worker exposure. However, this incident has led to additional safety precautions' being implemented at all permanently shutdown plants.

Extended pool storage provides a benign environment that does not lead to degradation of the integrity of spent-fuel rods. Moreover, continuing advances in dry storage techniques, particularly in standardization of procedures and equipment, indicate that these systems are simple, passive, and easily maintained (53 FR 31651; NUREG-1092; Mullen et al. 1988).

For pool storage, while plant life extension could possibly increase the likelihood of inadvertent criticality through dense-racking or spent-fuel handling accidents, NRC regulations are in place to satisfactorily address this problem. In

addition, studies of fuel rod or cladding failures indicate that fuel rods should remain secure well beyond the period of plant life extension, if it becomes necessary to continue pool storage on site (EPRI NP-3765; AIF/NESP-032; EPRI NP-5983; Bailey 1990; Gilbert et al. 1990; 55 FR 38474).

As a result of the operational experience demonstrated by Surry, Robinson, Oconee, and Ft. St. Vrain, NRC has determined that ISFSI methods of dry storage are sufficiently well developed, safe, and dependable to permit the generic licensing for any nuclear plant licensee (provided the plant licensee notifies NRC of the intent to use an ISFSI, uses NRC-certified casks, follows all specified conditions for their use, and provides a full description and safety assessment of the proposed site for an ISFSI) (55 FR 29181; 53 FR 31651). Worker and population exposures are minimal, and ISFSIs use only a small fraction of available land. Environmental assessments undertaken for all ISFSIs have resulted in issuance of findings of no significant impact (NRC Dockets 72-2, 72-3, 72-4, and 72-9).

The principal occupational exposures from spent-fuel management will occur during repackaging of spent-fuel rods and during construction and handling activities associated with moving and storing spent-fuel bundles and racks. While these impacts are expected to vary by the amount of fuel requiring storage, occupational doses during the period of license renewal are not expected to result in doses in excess of present levels (Section 4.6.3). Environmental impacts to on-site land availability should be minimal, given the small amount of land required for expanded spent-fuel pools and dry storage facilities.

6.4.6.3 On-Site Storage of Spent Fuel

Current and potential environmental impacts from spent-fuel storage have been studied extensively and are well understood. Storage of spent fuel in spent-fuel pools was considered for each plant in the safety and environmental reviews at the construction permit and operating license stage. The Commission has studied the safety and environmental effects of the temporary storage of spent fuel after cessation of reactor operation and published a generic determination of no significant environmental impact in its regulations at 10 CFR 51.23. The environmental impacts of storing spent fuel on site in a fuel pool for 10 years prior to shipping for off-site disposal were assessed and are included within the environmental data given by Table S-3, found in the Commission's regulations at 10 CFR 51.51. Environmental assessments (EA) for expanding the fuel-pool storage capacity have been conducted for more than 50 plants. A finding of no significant environmental impact was reached for each fuel-pool capacity expansion. Dry cask storage at an ISFSI is the other technology used for spent-fuel storage on site. The Commission has conducted EAs for seven site-specific licensed ISFSIs and has reached a finding of no significant environmental impact for each. The Commission has recently amended its regulations in 10 CFR 72 to allow power reactor licensees to store spent fuel on their sites under a general license. The environmental impacts of implementing this rule were analyzed in an EA that incorporated EAs performed for previous rulemakings related to 10 CFR 72 and for the Commission's Waste Confidence Decision.

At the construction permit and operating license stage, both the 10 CFR 50 safety review and the 10 CFR 51 environmental review contributed to understanding the potential radiological and nonradiological environmental impacts of fuel-pool construction and operation. The design and operating conditions of spent-fuel pools and their various auxiliary systems were reviewed to ensure that the design criteria of Appendix A to 10 CFR 50 are met. These criteria address (1) control of releases of radioactive materials to the environment, (2) fuel storage and handling and radioactivity control, (3) prevention of criticality in fuel storage and handling, (4) monitoring fuel and waste storage, and (5) monitoring radioactive releases. These criteria ensure that radioactive releases to the environment are controlled and acceptable and that effluent discharge paths and the plant environs are monitored for radioactivity. Appendix I to 10 CFR 50 provides the numerical objectives for the design objectives and limiting conditions for operation required to meet the ALARA criterion for radioactive material in the total effluent from an LWR. The objectives were quoted earlier in this chapter and include an objective that total radioactive material in liquid effluent should not result in an annual dose or dose commitment to the total body or to any organ of an individual in an unrestricted area for all pathways of exposure in excess of 5 mrem. In addition, the calculated annual total quantity of radioactive material, except tritium and dissolved gases, should not exceed 5 Ci for each reactor at a site. Appendix I objectives for annual total gaseous effluent of radioactive material for all reactors at a site is that gamma radiation doses should not exceed 10 mrad and beta radiation doses should not exceed 20 mrad for an individual located at or beyond the site boundary.

Radioactive materials from the spent-fuel pool contribute a small fraction of the total radioactive materials released from a plant. It is the total releases that need to meet Appendix I numerical objectives. In the construction permit and operating license review for each plant, a thorough assessment is made of calculated releases of curies per year of radioactive materials in both liquid effluent and in gaseous effluent, the exposure pathways, and the impacts to man and biota other than man.

The Commission has considered whether radioactive wastes generated in nuclear power reactors can be subsequently disposed of without undue risk to the public health and safety and the environment. As stated in its regulations at 10 CFR 51.23:

> (a) The Commission has made a generic determination that, if necessary, spent fuel generated in any reactor can be stored safely and without significant environmental impact for at least 30 years beyond the licensed life for operation (which may include the term of a revised or renewed license) of that reactor at its spent-fuel storage basin or at either on-site or off-site independent fuel storage installations. Further, the Commission believes that there is reasonable assurance that at least one mined geological repository will be available within the first quarter of the twenty-first century, and sufficient repository capacity will be available within 30 years beyond the licensed life for operation of any reactor to dispose of the commercial high-level waste and spent fuel originating in such reactor and generated up to that time.

In accordance with this determination the rule also provides that no discussion is required concerning environmental impacts of spent-fuel storage for the period following the term of the reactor operating license, including a renewed license. The waste confidence determination was first published in 1984 at 49 FR 34694, August 31, 1984 and was amended in 1990 at 55 FR 38474, September 18, 1990. Additional information and explanation of the safety and environmental considerations supporting the waste confidence determination are given in the notice of the proposed rule amendment, 54 FR 39767, September 28, 1989.

The environmental impacts of storing spent fuel on site in a fuel pool for 10 years prior to shipping for off-site disposal are incorporated in the data presented in Table S-3. The environmental impacts of storage of spent fuel in a fuel pool are given in Table 2.5 of NUREG-0116, *Environmental Survey of the Reprocessing and Waste Management Portions of the LWR Fuel Cycle.* Commitment of land, water consumption, chemical effluent, gaseous, liquid and solid radiological effluent, and thermal effluent are all negligible.

Since 1984, licensees have continued to provide safe and environmentally innocuous additional reactor-pool storage capacity through reracking. Over 50 reviews for the expansion of fuel-pool capacity have been completed by the Commission. Each review has resulted in a finding of no significant environmental impact. The reracking activities take place within existing structures and already disturbed land areas, and the changes in radiological, nonradiological, and thermal effluent are negligible.

Dry storage of spent fuel at ISFSI has been extensively studied by the Commission, and the environmental impacts are well understood. Licensing requirements for the independent storage of spent fuel and HLW are given in 10 CFR 72. In part, these regulations cover siting evaluation factors, general design criteria, general license for storage of spent fuel at power reactor sites, and approval of spent-fuel storage casks.

6.4.6.4 On-Site Dry Cask Storage

On-site dry cask storage of spent fuel can be accomplished either by a specific license issued under 10 CFR 72.40 or by the provisions of a general license issued under 10 CFR 72.210 for an ISFSI at operating power reactors. To date, seven specific licenses have been issued under 10 CFR 72.40 and one general license issued under 10 CFR 72.210 is operational. For each specific license the Commission has prepared an EA and a finding of no significant impact. Each EA addressed the impacts of construction, use, and decommissioning, including fugitive dust; erosion, noise, heat, and radiological impacts. The Commission also prepared an EA for the general license issued on July 18, 1990 (55 FR 29191). The Commission does not prepare an EA for each general licensee but does prepare an EA for each dry storage cask listed under 10 CFR 72.214 which is approved for use by general licensees. Currently seven casks are listed under 10 CFR 27.214 and it is anticipated that more will be added. General licensees can use only casks listed under 10 CFR 72.214.

EAs prepared for site-specific licenses include site description, need for action, alternatives, site and environment, description of the ISFSI, environmental

impacts of proposed action, safeguards for spent fuel, decommissioning, and finding of no significant impact. Under the environmental impacts of the action, the following are considered: land use and terrestrial resources, water use and aquatic resources, noise and air-quality impacts of construction, socioeconomic impacts of construction, radiological impacts of construction, radiological impacts of routine operations, off-site dose, collective occupational dose, radiological impacts of off-normal events and accidents, land use and terrestrial resources, water use and aquatic resources, other effects of operation, and resources committed.

Using the Calvert Cliffs Nuclear Power Plant Site ISFSI EA as typical, the following impacts are evaluated. Land use is about six acres, which is within the owner-controlled area of 2300 acres. During construction of the pad, water for cleaning, drinking, and fugitive dust control was transported to the site by truck. Storm-water runoff and sediment were controlled according to local codes. Air quality had a temporary increase of suspended particulate material, hydrocarbons, carbon monoxide, and oxides of nitrogen from construction activities. The size of the work force was not expected to exceed 50 people. This expanded work force had little impact in the area with large population growth. During initial construction there were no radiological impacts. As construction proceeded, after filling some storage modules, radiation was controlled with temporary shielding to meet NRC and ALARA exposure requirements. Dry storage of spent fuel in welded canisters has no gaseous or liquid effluents. The exposure of the nearest resident, 4705 ft from the facility, when the facility is filled with design-basis spent fuel in 120 modules, the license limit, is less than one mrem/year. The exposure of that resident from other operations at the site is 13.5 mrem/year. These exposures are well within the requirements of 10 CFR 72.104 and 40 CFR Part 190 limits of 25 mrem/year. By year 2010 there are projected to be about 500 people living between 1 and 2 miles of the Calvert Cliffs Station. The collective dose is estimated to be about 101 man-rem/year. Occupational exposure in constructing additional modules after the initial set has been loaded is expected to total about 4 man-rem. Once all 120 modules are loaded, the radiation exposure from the ISFSI is expected to be less than 5 percent of the total site yearly exposure of 350 man-rem. Worst-case accident dose was calculated to be 23 mrem to the whole body and 111 mrem to the thyroid at the nearest residence. Heat from the modules is not expected to be high enough to affect vegetation growth. Fences will discourage some wildlife species from using the area adjacent to the modules. There is no planned use of water or liquid discharge to local surface or groundwater supplies. Surface runoff from precipitation will enter the Chesapeake Bay under existing drainage routes, but it is not expected to result in negative impact to water quality. Rain may vaporize and form a localized fog over the modules that would not extend beyond the plant exclusion boundary. Noise during construction and movement of fuel would not be distinguishable from other operational noise at the site or to result in adverse impact to local residents. The Commission believes that the impacts discussed above reasonably describe the impacts from existing dry cask storage facilities, as well as the likely impacts from those dry cask storage facilities that are expected to be constructed as a result of license renewal.

The Commission prepares an EA for each approved cask listed in 10 CFR 72.214. These EAs are tiered off the "Final Waste Confidence Decision," August 31, 1984 (49 FR 34688), the *Environment Assessment for 10 CFR 72 "Requirements for the Independent Storage of Spent Fuel and High-Level Radioactive Waste,"* NUREG-1092 (August 1984), and the "Environmental Assessment for Proposed Rule Entitled 'Storage of Spent Nuclear Fuel in NRC-Approved Storage Casks at Nuclear Power Reactor Sites,'" for the proposed rule published on May 5, 1989 (54 FR 19379). Additional impacts evaluated are those associated with the construction, use, and disposal of the cask. These impacts are very small compared to the total impact of the steel industry, plastics industry, and the concrete industry. The incremental impacts of cask use are considered small. No effluents, either gaseous or liquid, are expected from the sealed casks. Incremental radiation doses off site are also considered to be small compared to those from the other operations on the site. Based on the above summary a finding of no significant impact is appropriate. This finding has been made for each of the seven casks listed in 10 CFR 72.214. Power reactor licensees using one of the listed casks under a general license do not need to prepare an environmental report, nor does the NRC have to prepare an EA.

6.4.6.5 Expanding Fuel-Pool Capacity

The Commission prepares an EA for each request to expand the capacity of a spent-fuel pool. The EA prepared for the increase in the allowed fuel assembly storage for the Pilgrim Nuclear Power Station is a typical example of this type of action. Alternatives looked at include (1) shipment of fuel to a permanent federal fuel-storage/disposal facility, (2) shipment of fuel to a reprocessing facility, (3) shipment of fuel to another utility or site for storage, (4) reduction of spent-fuel generation, (5) construction of a new independent spent-fuel storage installation, and (6) no action. After evaluating the alternatives, the proposed action of increasing the capacity of the spent-fuel pool is the best one at the time; however, in the longer term, an ISFSI is the solution. Radioactive exposures, waste generation, and releases were evaluated and found to be incrementally small. The only nonradiological effluent is additional heat rejected from the plant. This additional heat is small compared to the total rejected by the rest of the plant, and it will have a negligible effect on the environment. The risks due to accidents and their environmental effects are found to be not significant.

6.4.6.6 Regulations Applicable

10 CFR Parts 72, 60, and 61.

6.4.6.7 Conclusion

The Commission's waste confidence finding at 10 CFR 51.23 leaves only the on-site storage of spent fuel during the term of plant operation as a high-level-waste storage and disposal issue at the time of license renewal. The Commission's regulatory requirements and the experience with on-site storage of spent fuel in fuel pools and dry storage has been reviewed. Within the context of a license renewal review and determination, the Commission finds that there is ample basis to conclude that continued storage of existing spent fuel and storage of spent fuel generated during the license renewal period can be accomplished safely and without significant environmental impacts. Radiological

impacts will be well within regulatory limits; thus radiological impacts of on-site storage meet the standard for a conclusion of small impact. The nonradiological environmental impacts have been shown to be not significant; thus they are classified as small. The overall conclusion for on-site storage of spent fuel during the term of a renewed license is that the environmental impacts will be small for each plant. The need for the consideration of mitigation alternatives within the context of renewal of a power reactor license has been considered, and the Commission concludes that its regulatory requirements already in place provide adequate mitigation incentives for on-site storage of spent fuel. On-site storage of spent fuel during the term of a renewed operating license is a Category 1 issue.

6.5 NONRADIOLOGICAL WASTES

Nonradiological wastes from routine plant operations include those from cooling system blowdown (continual or periodic purging of impurities from cooling systems), water treatment wastes (sludges and high-saline streams whose residues are disposed of as solid waste), boiler metal cleaning, floor and yard drains, storm-water runoff, sewage wastes, and cleaning solvents (NUREG-0020). Descriptions of these waste-generating systems are provided in Section 2.1.6. If nonradiological sanitary wastes cannot be processed by on-site water treatment systems, they are collected by independent contractors and trucked to off-site treatment facilities. If wastes have hazardous constituents, proper handling and disposal are required to minimize potential contamination of surface water and groundwater. In this section, a review of literature on nonradiological waste management throughout the industry was used to depict baseline conditions and to infer the effects of license renewal.

6.5.1 Baseline

Stringent regulations governing the generation of nonradioactive solid waste and the resulting efforts of utilities to establish waste minimization and pollution prevention programs are expected to produce a general decline in the general production of waste by nuclear power plants during the period prior to license renewal. Nonradioactive hazardous solid waste disposal from all nuclear power plants is governed by RCRA (Pub. L. 94-580). RCRA requires EPA and state agencies to establish a permit system for disposal of these wastes in licensed landfills. Utilities have undertaken changes in operation to ensure proper handling and disposal of these wastes in accordance with RCRA, including periodic removal of septic tank sludge by a licensed contractor and disposal on or off site in an approved sanitary system. Construction-related solid wastes are discharged to holding ponds until chemical discharges and runoff are suitable for discharge to surface waters on a batch basis. These latter discharges must comply with allowable standards under RCRA permits.

6.5.2 Effects of License Renewal

Solid nonradiological waste from blowdown, water treatment, boiler metal cleaning, floor and yard drains, storm-water runoff, and sewage wastes will likely remain of limited concern during license renewal for three reasons. First, no changes to the systems that generate these wastes are anticipated as a result of license renewal for all plants. Second, existing regulations, including National Pollutant

management attributable to license renewal is a Category 1 issue.

7.3.3 Air Quality Impacts

Air quality impacts of decommissioning are expected to be negligible. No major land disturbance for construction laydown or temporary waste storage areas is anticipated. The principal air quality impacts would result from motor vehicles operated by workers for transportation on-site and for movement of people and materials to and from the site. Most decommissioning activities would be conducted inside the containment, the auxiliary building, and the fuel-handling buildings. Because there would be a possibility of airborne releases of radioactivity within these buildings during decommissioning, releases to the ambient environment would be controlled. These impacts would be much smaller than those associated with construction or demolition of the facilities on-site and would not change with 20 additional years of operation. License renewal and an additional 20 years of reactor operation will have no impact on air quality during decommissioning; thus the impact of license renewal on decommissioning air quality impacts is of small significance for all plants. Because license renewal does not affect the level of air pollution during decommissioning, there is no need for the consideration of mitigation as part of the license renewal environmental review. The impact of decommissioning on air quality attributable to license renewal is a Category 1 issue.

7.3.4 Water Quality Impacts

The principal water quality impacts expected from decommissioning are those associated with sanitary sewer operations. Because the decommissioning work force is likely to be smaller than those of construction and certain operational activities (see Section 7.3.7), no increase in water quality impacts is expected. Soil erosion and chemical spills associated with increased site activities during decommissioning have the potential to degrade water quality, but such effects are readily controllable. The potential for significant water quality impacts from erosion or spills is no greater if decommissioning occurs after a 20-year license renewal instead of after the original 40 years of operation. Measures to minimize occupational and public radiation exposure will also protect water quality. License renewal and an additional 20 years of reactor operation will have no impact on water quality during decommissioning; thus the impact is of small significance. Because license renewal does not affect water quality impacts during decommissioning, there is no need for the consideration of mitigation as part of the license renewal environmental review. The impact of decommissioning on water quality impacts attributable to license renewal is a Category 1 issue.

7.3.5 Ecological Impacts

Terrestrial biota impacts, if any, would be associated with land disturbance for laydown or temporary waste storage areas, and no such land disturbance is anticipated. No direct impacts to aquatic biota are expected from routine decommissioning activities. Measures employed to protect water quality will also prevent toxic effects to aquatic organisms from liquid effluents. Therefore, the ecological impacts associated with decommissioning are not expected to vary with the length of time the plant is operated. Decommissioning after a 20-year license renewal would have the same ecological impacts, if any, as decommissioning after 40 years of operation; thus the impact is of small significance. Because license renewal does

not affect ecological impacts during decommissioning, there is no need for the consideration of mitigation as part of the license renewal environmental review. The impact of decommissioning on ecological resources attributable to license renewal is a Category 1 issue.

7.3.6 Economic Impacts

In general, the nature of the activities and the elements of the costs associated with decommissioning are well understood, and the necessary skills and equipment should be readily available when needed. Table 7.8 lists percentage estimates of total costs for decommissioning large PWR and BWR reactors by the DECON method.

A 1991 national survey had estimates that averaged $218 million per 1000 MW for a PWR reactor and $283 million per 1000 MW for a BWR. The standard deviation was $74 million for PWRs and $144 million for BWRs. For both types of reactors, the range for plus and minus one standard deviation was $131 million to $350 million (OTA-E-575). These varying estimates reflect the uncertainty of projecting costs well into the future. Additionally, the unique aspects of a plant's design and operating history can affect decommissioning costs (e.g., Three Mile Island Unit 2 and Fort St. Vrain).

The largest cost category is "undistributed"; the largest component of this cost is utility support staff. The timing of decommissioning could influence disposal costs depending on the price of disposal services. The current trend is steeply increasing cost per units of radioactive waste disposal. If this trend continues over the long run, then one effect of license renewal could be to increase decommissioning costs. However, disposal costs should stabilize by the time that most existing plants would be eligible for license renewal. If this is the case, license renewal would have a minimal effect on the undiscounted costs of decommissioning after a 20-year extended operation period, compared with after 40 years of operation.

For the cost estimates included in Table 7.8, doubling the cost per cubic foot of waste disposal would increase total decommissioning costs by about 13 percent for PWRs and 20 percent for BWRs. The assumed rate charged for disposal would have to increase by a factor of about 6 to double the total cost of decommissioning. If the rate of disposal costs turns out to be significantly more than has been assumed in decommissioning cost estimates, there would tend to be significantly more attention devoted to volume reduction; thus, total cost of disposal would tend to increase less than the proportional increase in the rate charged per cubic foot (NUREG/CR-5884, vol. 1, pp. 3.56, 3.57, and NUREG/CR-6174, vol. 1, p. 3.55).

The timing of decommissioning could also affect costs if progress in robotics technology reduces costs and worker radiation exposure. This progress would affect a relatively small part of the decommissioning process and thus is unlikely to reduce the total cost of decommissioning significantly; however, it could result in substantial dose reductions.

The preceding sections show that there is no reason to expect the physical requirements of decommissioning to be materially different when comparing the base case to a 20-year extended operation period. The undiscounted economic costs, although uncertain, should also be relatively stable and thus unaffected by license renewal. However, because of financial considerations, the timing of

Table 7.8 **Summary and distribution of decommissioning costs for large pressurized-water reactors (PWRs) and boiling-water reactors (BWRs)** (thousands of 1993 dollars)

Decommissioning alternative	Duration[a] (years)	Decon[b] (%)	Removal[c] (%)	Packaging[d] (%)	Transport[e] (%)	Disposal[f] (%)	Undistributed[g] (%)	Present value[h] of total cost ($ × 10^3)	Present value[h] of savings[i] for license renewal ($ × 10^3)
Pressurized-water reactor									
DECON	11	16.7	9.5	1.6	3.3	17.0	51.9	101,600	41,032
SAFESTOR1	59	11.0	0.5	0.3	1.0	3.4	83.8	93,000	37,559
SAFESTOR2	60	9.1	5.2	0.9	1.8	9.1	74.0	101,900	41,153
ENTOMB1	60	NA	NA	NA	NA	NA	NA	104,300	42,123
ENTOMB2	60	NA	NA	NA	NA	NA	NA	106,100	42,850
ENTOMB3	300	NA	NA	NA	NA	NA	NA	109,500	44,223
Boiling-water reactor									
DECON	9	11.1	9.2	2.6	0.9	27.3	48.9	133,250	53,814
SAFESTOR1	59	7.6	1.0	0.2	0.5	3.1	87.5	121,600	49,109
SAFESTOR2	60	5.8	4.8	1.4	0.5	14.1	73.5	134,200	54,198
ENTOMB1	60	NA	NA	NA	NA	NA	NA	151,900	61,346
ENTOMB2	60	NA	NA	NA	NA	NA	NA	155,200	62,679
ENTOMB3	300	NA	NA	NA	NA	NA	NA	164,500	66,435

[a]Preshutdown period not included in duration total.
[b]Includes direct decommissioning labor and materials for chemical decontamination of systems, cleaning of surfaces, and waste water treatment.
[c]Includes direct labor and materials costs of removal.
[d]Includes direct costs of waste disposal packages.
[e]Includes cask rental costs and transportation costs.
[f]Includes all costs of disposal at the LLW disposal facility.
[g]Includes all costs that are period-dependent—e.g., decommissioning operations contractor (DOC) mobilization/demobilization, utility and DOC overhead staff, nuclear insurance, regulatory costs, plant power usage, taxes, laundry services, environmental monitoring. Most of the undistributed costs are for staffing.
[h]At 3 percent discount rate.
[i]The decommissioning costs have been discounted at a rate of 3 percent real (assumes no inflation). At this rate, delaying decommissioning by the 20-year period of license renewal saves about 45 percent of the decommissioning cost; however, present value total costs have been figured at 2.5 years from final plant shutdown, resulting in savings from license renewal of about 40 percent.

Source: Tables 3.1 and 4.1 and pp. 3.59, 4.13, and 5.13 of NUREG/CR-5884, Vol. 1; Tables 3.1 and 4.1 and pp. 3.58, 4.12, and 5.11 of NUREG/CR-6174, Vol. 1.

decommissioning costs is important. To compare costs of activities that occur at different times, it is necessary to discount these costs to a common point in time. This is accomplished through present worth calculations, which account for the real opportunity cost or time value of money. Delaying decommissioning will allow any funds accumulated for this purpose to earn a return over the additional 20 years of license renewal and thus to reduce the present value of the decommissioning costs. The reduction in the present value is a function of the delay (license renewal period) and the time value of money, so the present value would be reduced by the same amount even if no fund were established and decommissioning were financed with borrowed money at the end of the plant operations. Regardless of how it is financed, the present value of delaying decommissioning costs will result in significant financial cost savings if a positive real discount rate is assumed.

Because total decommissioning costs are uncertain, the amount of financial savings that results from delaying decommissioning is also uncertain. Higher-than-expected decommissioning costs would result in higher cost savings resulting from delaying these costs, and vice versa. At a 3 percent real (i.e., above general inflation) discount rate, the present value savings associated with license renewal is about 40 percent of decommissioning costs (Table 7.8). Real cost increases, which might occur for waste disposal costs, could reduce the cost advantage of license renewal, but waste disposal costs are expected to stabilize before the current licenses of most plants expire. The impact of license renewal on decommissioning costs is not a consideration in the environmental review and decision whether to renew a license.

7.3.7 Socioeconomic Impacts

Socioeconomic impacts associated with decommissioning will be induced by the net change in the labor force as incoming decommissioning workers replace emigrating operations workers. The nature of these impacts will depend on the vitality of local economic activity at the time of decommissioning.

One of the difficulties of attempting to evaluate the socioeconomic impacts of decommissioning in year 40 of a plant's life compared with decommissioning in year 60 relates to the uncertainties about the size of the work force required. The largest nuclear power plant decommissioned to date has been the 150-MW(e) Shippingport Station (Section 7.2.3), which required an average work force during the peak year of approximately 230 workers (DOE/SSDP-0081); this work force was larger than the estimated work forces for very large power plants examined in studies prepared before the Shippingport experience (NUREG/CR-0130, Table 9.1-1; NUREG/CR-0672, Table 9.1-3). Because more-recent manpower estimates for large nuclear power plants are not available, the actual work force required in the future might be substantially larger than currently expected.

If the decommissioning process requires a smaller work force than the on-site operating staff and if the local economy is stable or declining, the result could be economic hardships, including declining property values and business activity, and problems for local government as it adjusts to lower levels of tax revenues. However, even this reduced work force will tend to mitigate temporarily the full adverse socioeconomic effects of terminating operations.

If there is a net reduction in the community work force but the economy is growing, the adverse impacts of this ongoing growth (e.g., housing shortages and school overcrowding) could be reduced.

If the decommissioning work force were substantially larger than the operational work force, the result could be increased demand for housing and public services but also increased tax revenues and higher real estate values. If the economy is characterized by decline, decommissioning could temporarily reverse the adverse economic effects.

In a stable economy, a net increase in the community work force could lead to some shortages in housing and public services, as well as to the higher tax revenues and real estate values mentioned previously. In a growing economy, decommissioning could act as an exacerbating factor to the ongoing shortages that already might exist.

Although the staff cannot project with certainty either the size of the required decommissioning work force or the state of the local economy at the time of decommissioning, the staff has assumed that the baseline conditions will be negligibly different in year 40, compared with year 60. Therefore, the staff expects that the socioeconomic impacts of decommissioning would be essentially similar whether that action were taken in year 60 or in year 40. The impact of license renewal on the socioeconomic impacts of decommissioning are of small significance. Because license renewal does not affect the socioeconomic impacts that will occur at the time of decommissioning, there is no need for the consideration of mitigation as part of the license renewal environmental review. The impact of decommissioning on socioeconomic resources attributable to license renewal is a Category 1 issue.

7.4 CONCLUSIONS

The physical requirements and attendant effects of decommissioning nuclear power plants after a 20-year license renewal are not expected to differ from those of decommissioning at the end of 40 years of operation. Decommissioning after a 20-year license renewal would increase the occupational dose no more than 0.1 person-rem (compared with 7,000 to 14,000 person-rem for DECON decommissioning at 40 years) and the public dose by a negligible amount (Section 7.3.1). License renewal would not increase to any appreciable extent the quantity or classification of LLW generated by decommissioning (Section 7.3.2). Air quality, water quality, and ecological impacts of decommissioning would not change as a result of license renewal (Sections 7.3.3, 7.3.4, and 7.3.5). There is considerable uncertainty about the cost of decommissioning; however, while license renewal would not be expected to change the ultimate cost of decommissioning, it would reduce the present value of the cost (Section 7.3.6). The socioeconomic effects of decommissioning will depend on the magnitude of the decommissioning effort, the size of the community, and the other economic activities at the time, but the impacts will not be increased by decommissioning at the end of a 20-year license renewal instead of at the end of 40 years of operation (Section 7.3.7). Incremental radiation doses, waste management, air quality, water quality, ecological, and socioeconomic impacts of decommissioning due to operations during a 20-year license renewal term would be of small significance. No mitigation measures beyond those provided by ALARA are warranted within the context of the license

renewal process. The impacts of license renewal on radiation doses, waste management, air quality, water quality, ecological resources, and socioeconomics impacts from decommissioning are Category 1 issues.

7.5 REFERENCES

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DOE/RW-0006, Rev. 5, Vol. 1, *Integrated Data Base for 1989: Spent Fuel and Radioactive Waste Inventories, Projections, and Characteristics*, prepared by Oak Ridge National Laboratory, Oak Ridge, Tennessee, for U.S. Department of Energy, Washington, D.C., November 1989.

DOE/RW-0006, Rev. 6, *Integrated Data Base for 1990: Spent Fuel and Radioactive Waste Inventories, Projections, and Characteristics*, prepared by Oak Ridge National Laboratory, Oak Ridge, Tennessee, for U.S. Department of Energy, Washington, D.C., November 1990.

DOE/SSDP-0081, *Final Project Report Shippingport Station Decommissioning Project*, prepared by Westinghouse Hanford Company, Shippingport Station Decommissioning Project Office, for the U.S. Department of Energy, Richland Operations Office, Richland, Washington, December 1989.

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Moore, T., "Milestone Achieved in Nuclear System Decontamination," *EPRI J.*, 28–32, November/December 1995.

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NUREG/CR-0130, Vol. 1, R. I. Smith, et al., *Technology, Safety and Costs of Decommissioning a Reference Pressurized Water Reactor Power Station*, prepared by Pacific Northwest Laboratory, Richland, Washington, for U.S. Nuclear Regulatory Commission, June 1978.

NUREG/CR-0130, Addendum 4, G. J. Konzek and R. I. Smith, *Technology, Safety and Costs of Decommissioning a Reference Pressurized Water Reactor Power Station's Technical Support for Decommissioning Matters Related to Preparation of the Final Decommissioning Rule*, prepared by Battelle, Pacific Northwest Laboratory, Richland, Washington, for U.S. Nuclear Regulatory Commission, July 1988.

NUREG/CR-0672, H. D. Oak, et al., *Technology, Safety and Costs of Decommissioning a Reference Boiling Water Reactor Power Station*, prepared by Pacific Northwest Laboratory, Richland, Washington, for U.S. Nuclear Regulatory Commission, June 1980.

NUREG/CR-0672, Addenda 3 and 4, G. J. Konzek and R. I. Smith, *Technology, Safety and Costs of Decommissioning a Reference Boiling Water Reactor Power Station: Comparison of Two Decommissionings Cost Estimates Developed for the Same Commercial Nuclear Reactor Power Station*, prepared by Pacific Northwest Laboratory, Richland, Washington, for U.S. Nuclear Regulatory Commission, December 1990.

NUREG/CR-5491 (PNL-7191), R. P. Allen and A. B. Johnson, *Shippingport Station Aging Evaluation*, U.S. Nuclear

ENTERGY CONTENTION NYS-17B
ATTACHMENT 6

Entergy

Indian Point Energy Center
450 Broadway, GSB
P.O. Box 249
Buchanan, N.Y. 10511-0249
Tel (914) 734-6700

J.E. Pollock
Site Vice President
Administration

February 5, 2008

Re: Indian Point Unit 2
Docket 50-247
NL-08-027

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Subject: **Indian Point Energy Center Registration of Unit 2 Spent Fuel Cask Use**

Dear Sir or Madam;

Entergy Nuclear Operations, Inc. (Entergy) operates the Indian Point Energy Center (IPEC) Independent Spent Fuel Storage Installation (ISFSI) in accordance with the general license provisions of 10 CFR 72.210. The conditions of 10 CFR 72.212(b)(1)(ii) include the registration of a spent fuel cask within 30 days of using a cask for storage of spent nuclear fuel.

Accordingly, this letter hereby registers the initial use, on January 11, 2008, of the first IPEC dry fuel storage cask, January 22, 2008, of the second IPEC dry fuel storage cask, and February 2, 2008, of the third IPEC dry fuel storage cask.

This letter also provides the following registration information associated with the first, second and third Holtec HI-STORM 100 spent fuel cask systems that were placed into storage on the IPEC ISFSI pad [Docket No. 72-51]. The fuel contained in these casks is from IPEC Unit 2 Nuclear Power Plant, Reactor License No. DPR-26, Docket No. 50-247.

First IPEC Spent Fuel Cask System — Date placed in use: January 11, 2008

Licensee's Name:	Entergy Operations, Inc.
Licensee's Address:	Indian Point Energy Center 450 Broadway P.O. Box 249 Buchanan, NY 10511
Cask Model Number:	HI-STORM 100
Cask Certificate Number:	1014
MPC Serial Number:	0051
HI-STORM Overpack Serial Number:	0223
Number of Fuel Bundles:	32 fuel bundles

NMSS01
FSME

Second IPEC Spent Fuel Cask System Date placed in use: January 22, 2008

Licensee's Name:	Entergy Operations, Inc.
Licensee's Address:	Indian Point Energy Center 450 Broadway P.O. Box 249 Buchanan, NY 10511
Cask Model Number:	HI-STORM 100
Cask Certificate Number:	1014
MPC Serial Number:	0054
HI-STORM Overpack Serial Number:	0221
Number of Fuel Bundles:	32 fuel bundles

Third IPEC Spent Fuel Cask System Date placed in use: February 2, 2008

Licensee's Name:	Entergy Operations, Inc.
Licensee's Address:	Indian Point Energy Center 450 Broadway P.O. Box 249 Buchanan, NY 10511
Cask Model Number:	HI-STORM 100
Cask Certificate Number:	1014
MPC Serial Number:	0055
HI-STORM Overpack Serial Number:	0222
Number of Fuel Bundles:	32 fuel bundles

Total Cask Systems stored at the IPEC ISFSI pad [Docket No. 72-51]:
Three (3) HI-STORM 100 Cask System

Entergy is making no new commitments in this letter. Should you have any questions regarding this matter, please contact Mr. John Janicki, Superintendent Dry Fuels Storage, Indian Point Energy Center at (914) 734-6611.

Sincerely yours,

J. E. Pollock
Site Vice President
Indian Point Energy Center

cc: NRC Resident Inspector's Office, IPEC
Mr. John Boska, Senior Project Manager, NRC NRR DORL
Mr. Theodore Smith, Project Manager, NRC FSME DWMEP
Mr. Samuel Collins, Regional Administrator, NRC Region 1
Mr. Paul D. Tonko, President, NYSERDA
Mr. Paul Eddy, New York State Dept. of Public Service

ENTERGY CONTENTION NYS-17B
ATTACHMENT 7

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

DOCKETED 11/15/07

SERVED 11/15/07

SECRETARY

November 13, 2007

MEMORANDUM TO: Lawrence G. McDade, Chair
Dr. Richard E. Wardwell
Dr. Kaye D. Lathrop

FROM: Annette L. Vietti-Cook, Secretary

SUBJECT: FUSE REQUEST TO INCLUDE CATEGORY 1 ISSUES IN THE INDIAN POINT 2 AND 3 LICENSE RENEWAL ENVIRONMENTAL SCOPING PROCESS
(DOCKET NOS. 50-247 AND 50-286)
(ASLBP No. 07-858-03-LR-BD01)

The Commission is referring to the Board the attached letter from Friends United for Sustainable Energy (FUSE), dated October 23, 2007, which requests that Category 1 issues be included in the site-specific environmental scoping process for the Indian Point license renewal proceeding. The Board should treat this letter as a petition under 10 C.F.R. § 2.335. While FUSE is not yet a party to the proceeding and the letter may not meet all of the requirements of § 2.335, the Board is authorized to request additional information from FUSE, if needed, and allow other participants to respond to FUSE's request. If the Board finds a prima facie showing required by § 2.335(c), then it shall certify the issue to the Commission pursuant to § 2.335(d).

In addition, the Commission would like to remind participants that all filings concerning the Indian Point license renewal proceeding must be served upon all participants and be accompanied by a signed Certificate of Service.

cc: Indian Point Service List

FUSE
(FRIENDS UNITED FOR SUSTAINABLE ENERGY)
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SPRING VALLEY, NY 10977
(845) 371-2100 TEL
(845) 371-3721 FAX
FUSEUSA@YAHOO.COM

10/23/07

Honorable NRC Chairman Dale Klein
11555 Rockville Pike
Rockville Pike, Maryland 20852

Cc: Senator Hillary Clinton
Senator Charles Schumer
Governor Spitzer
Attorney General Andrew Cuomo
Congresswoman Nita Lowey
Congressman John Hall
Congressman Eliot Engel
Congressman Maurice Hinchey

RE: FORMAL REQUEST FOR THE GEIS to be EXEMPTED AS A REQUIREMENT OF PART 10 CFR 51.6, thereby requiring ENTERGY to ADDRESS ALL CATEGORY 1 and CATEGORY 2 ISSUES in the EIS.

Dear Chairman Klein:

This letter is to be construed and interpreted as a formal request by Friends United for Sustainable Energy USA, Inc. (FUSE) in the current license applicant for IP1 LLC, IP2 LLC, and IP3 LLC, (referred to as "Entergy"), for an exemption as is allowed under 10 CFR 51.6 which states:

§ 51.6 Specific exemptions.

The Commission may, upon application of any interested person or upon its own initiative, grant such exemptions from the requirements of the regulations in this part as it determines are authorized by law and are otherwise in the public interest,

FUSE has members living within three mile to fifty miles of the Indian Point Energy Center, which houses NRC licensees in IP1 LLC, IP2 LLC, and IP3 LLC. Therefore, FUSE and the undersigned individuals qualify under 51.6 as a interested person(s) entitled to make application for an exemption from the requirements in 10 CFR 51.6. Further, the exemption sought is A) within the law, and B) is otherwise **in the public interest.**

FUSE formally requests an exemption from any and all parts of the rules and regulations that exempt from consideration Category 1 issues. Said exemption would **thereby require the Applicant, in this case, Entergy, to address all Category 1 and Category 2 issues in the EIS Scoping Process for IP2 and IP3.**

Currently, Entergy has a License Renewal Application (LRA) pending before the Division of License Renewal, Office of Nuclear Reactor Regulations. As a part of the review of that application for license renewal, the NRC is at the beginning of the Environmental Scoping process wherein the Environmental Impacts and Costs associated with License Renewal are ascertained, and evaluated. Where appropriate, mitigation alternatives are explored, and eventually all of this information is published in a SEIS Environmental Report. It is in the public's best interest to have all issues (Category 1 and Category 2) at Indian Point fully and adequately examined in the EIS Scoping Process, with all mitigation alternatives, including denial of license renewal fully and completely explored.

FUSE represents thousands of residents living within 20 miles of the Indian Point Energy Center. FUSE and the individual undersigned co-signers qualify under 51.6 as interested person(s) entitled to make application for the Category 1 issues to be included in the site-specific EIS Scoping Process, and request that GEIS be waived/exempted as a requirement of part (10 CFR 51). The exemption sought is within the law, and is in the public interest.

If this requested exemption is not granted, Entergy will be allowed to remain moot on over 60 issues that the NRC has categorized as being generic to all reactors, under 10 CFR 51, the implementing rule to fulfill the obligations of NEPA. Every Category 1 issue has Environmental Impacts that are very unique to the Indian Point Plant, and are site specific. It is pointed out here, that the NRC itself has stated each nuclear reactor site is unique and

different. Avoiding a comprehensive review of these unique issues would amount to criminal negligence on the part of Federal Regulators, in this case, the NRC.

The NRC should grant FUSE and the undersigned co-signers the requested exemption to 10 CFR 51 GEIS criteria, in order to best serve the public interest, thereby requiring Entergy to address all Category 1 and Category 2 issues in the EIS Scoping process in its License Renewal Application for IP2 and IP3 as site-specific issues for the following reasons:

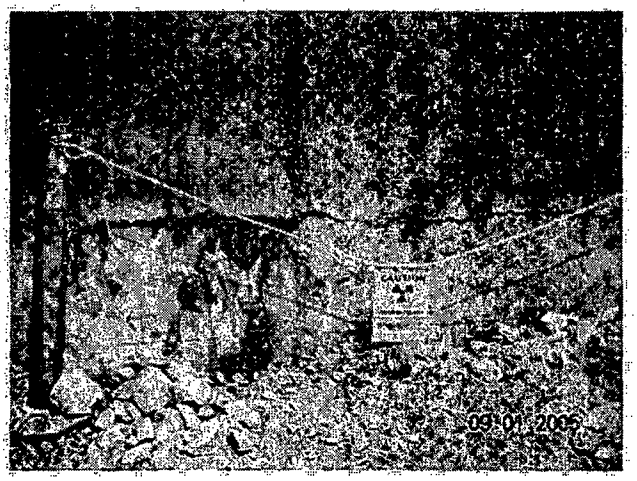
1. The primary purpose of the NRC is to protect human health and the environment. Indian Point is unique among all nuclear reactor sites for the following reasons, including, but not limited to:

- The population mass within a 50 mile radius of Indian Point far exceeds 20 Million citizens, 8% of the U.S. Population, and is located in the most densely populated area surrounding a nuclear facility in the nation. Further, the general area surrounding Indian Point is the only American community to have suffered not one, but two successful terrorist attacks in less than 20 years.

- New York City, located 25 miles from the plant, is the hub of America's financial institutions. A significant nuclear incident (accident) or terrorist attack on the facility that leads to off-site migration of radiological contaminants would be catastrophic in nature not only to the surrounding region, but the entire nation, as it could quickly lead to Environmental Costs in excess of half a trillion dollars which could bankrupt America.

- West Point Military Academy, the training ground for America's future leaders, and a vital American brain trust, which includes a U.S. mint, is located less than 8 miles away.

- Further, Indian Point is the only reactor site that is leaking radioactive strontium 90 into the ground, groundwater and Hudson River.



Radioactive leak in concrete structure at Indian Point
(http://www.gza.com/index.asp)

- Indian Point is located on an active fault line, the Ramapo fault. In light of the Japanese Earthquake that hit directly at the heart of the TEPCO reactors this summer, seismic issues should be fully reviewed in the EIS Scoping for Indian Point.

- On 9/11 at least one of the hijacked planes flew directly over Indian Point 2 and 3 reactors before it destroyed the World Trade Center.

- Since 9/11 Indian Point is considered one of the most attractive and vulnerable terrorist targets in the nation.

2. Additionally, the Indian Point site already has numerous non-compliance issues that place it in violation of NRC Rules and Regulations, with said issues already contaminating the environment, and increasing the risk to the general public. These risks include, but are not limited to:

A. Numerous members of Congress, and a majority of the elected officials and local communities question whether Indian Point is safe, and have repeatedly called for, and asked the NRC for an Independent Safety Assessment (ISA) because of non working sirens, a fatally flawed Emergency Plan, known spent fuel leaks, and a poor

safety record, including a host of cross cutting issues, sleeping guards and unethical business practices of Entergy.

B. Despite various extensions granted by the NRC, Entergy has yet to come into compliance with NRC regulations as relates to having a working siren system. FEMA recently failed the system, and a full review of Entergy's own documents shows that the system ordered and installed FAILS to meet the Design Basis Criteria. Further, the old system as NRC records show also fails to come close to being in compliance with 10 CFR Rules and Regulations with a constant litany of assorted failures from alarms not sounding, to alarms sounding when they are not supposed to, thus frightening citizens.

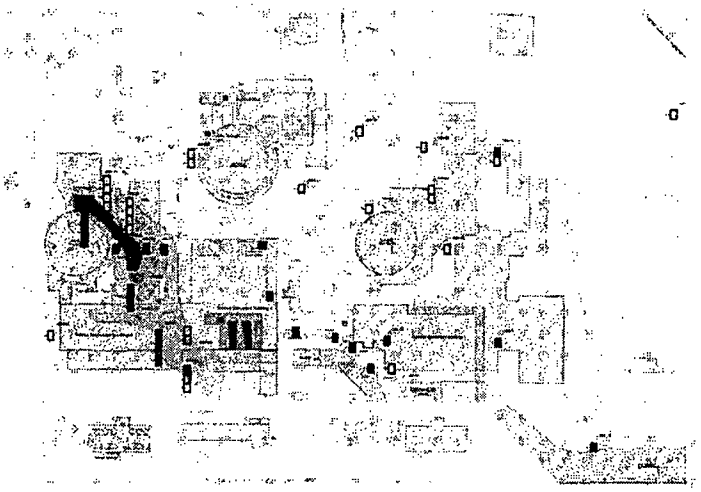
C. The State and County governments within the 10 mile Emergency Evacuation Zone have refused to certify the Emergency Evacuation Plan, and the Witt Report found that the Emergency Evacuation Plans are fundamentally flawed.

Dozens of communities have passed resolutions calling for an ISA. Public interest, and the voice of the public must be heard, and worked into the decision making process, and without this exemption, it is not.

It is pointed out here, that the Emergency Plan tells us, "When you hear the sirens, go inside and follow instructions."

However FEMA has admitted the Siren level is inadequate and therefore the sirens cannot be heard inside a house, or even inside a car. Therefore Entergy's system is useless.

D. Significant spent fuel pool leaks at IP1, IP2 and IP3 sites, which are leaking strontium 90, cesium 137 and tritium. All the spent fuel pools at Indian Point show clear evidence of serious age-related degradation. Yet, since 2005 Entergy has been unable to locate, identify, stop and remediate said leaks, and it appears with the passing of time that more of these leaks will continue to appear, and to worsen.

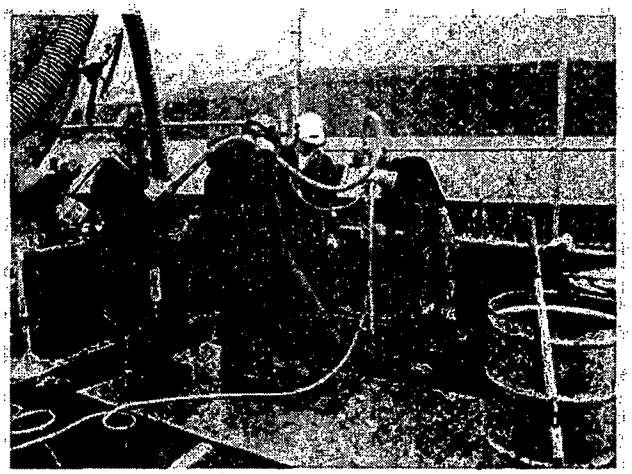


Tritium Map (http://www.gza.com/index.asp which is the home for Geo Environmental, Inc.)

E. A recently discovered leak at IP2 that was incorrectly categorized as a conduit leak was in fact a leak in the fuel transfer tube.

F. Entergy has been unable to locate and identify the leaks associated with reactor cooling system, which were only accidentally discovered when workers saw steam rising through the black top.

G, There are known Tritium, Strontium 90 and Cesium 137 plumes under the entire reactor site that are rapidly migrating towards the Hudson River. Said leaks, of approximately 350,000 gallons of radiological contaminants are polluting the potable water resources of New York State, in violation of New York State Law. Such leaks have been and continue to be unmonitored in violation of the NRC's own regulations.



Indian Point Worker on banks of the Hudson (http://www.gza/com/index.asp)

More disturbing, is that the NRC is not enforcing its own regulations by requiring Entergy to immediately remediate the leaks, because Entergy has been unable to identify the source of the leaks. Instead the NRC is just KEEPING AN EYE on them, and addressing them at some future date and time, maybe during decommissioning. To make matters even worse, due to the multi-layered, convoluted corporate ownership structure, Entergy could easily file for bankruptcy during decommissioning, thereby leaving the State and the Stakeholders to foot the bill to clean up the site. This is unacceptable regulatory oversight.

H. Both reactors are suffering severe BAC (Boric Acid Corrosion) of the reactor vessel heads...in fact, the corrosion issues are significant enough that Entergy has a standing order for new reactor vessel heads for IP2 and IP3 with delivery slated for 2011 and 2012 respectively. In order to install these vessel heads, it is probable that containment will have to be breached.

I. IP2 is one of the few reactors (3) in America to have suffered a significant Tube Rupture, back in 2000. Further, a recent Industry study has shown that tube fouling becomes a significant safety issue in pipes adjoining plugged pipes. Indian Point 2 and Indian Point 3 together have literally hundreds of plugged pipes in the reactor cooling system. This serious safety issue creates tremendous risks of tube ruptures from vibrational corrosion and system fatigue.

J. The series 400 stainless steel roller bearings on the traveling water screens for IP3 have huge holes, which it is believed are caused by corrosive microbes or lack of maintenance, This condition has existed since 1991, yet remains unremediated.

K. One of the steel containment plates at Indian Point is failing, which is admitted to in Entergy's License Renewal Application.

L. Indian Point cannot meet the Fire regulations of 10 CFR, and in fact Entergy has just requested that the NRC further lower the SAFETY MARGINS for an already granted exemption from the rules and regulations. A litany of lowered SAFETY MARGINS through a never-ending stream of NRC granted exemptions, variations, reliefs and rule changes is not adequate regulatory oversight, and our community is being needlessly put at grave risk in the name of National Corporate Interests.

M. Due to the closure of Barnwell, the "low-level" radioactive waste site, Entergy is planning to turn Indian Point into a low level radioactive waste storage site without proper application and review.

N. Due to the failure of approval of Yucca Mountain, the spent fuel produced by Indian Point, which by regulation is to be stored on site only on an interim, temporary basis, such storage has now become indefinite and potentially permanent. In fact, EPRI, NEI, DOE and the NRC are exploring ways to justify leaving both high and low level waste streams where they sit on reactor sites for periods in excess of 100 years.

O. The Decommissioning Trust Funds for IP1, IP2 and IP3, are insufficient to restore the site, especially in light of the multiple leaks first noticed in 2005.

P. Indian Point has failed to deliver on numerous commitments made in the original Final Environmental Impact Statements, including but not limited to:

i) Both IP2 and IP3 commitment for Closed Cooling Systems, instead of a Once Through system.

ii)) Has failed to create an 80 acre PUBLIC woodland park on the 235 acre Indian Point site, with walking paths.

iii) Has failed to keep their promises relating to aesthetic issues, specifically landscaping to mitigate as much as possible the INDUSTRIAL BLIGHT on the panoramic view of the area that is so important to our tourist industry.

The NRC has acknowledged that each nuclear reactor site is unique, as clearly evidenced by the above stated non-generic issues. Indian Point has a plethora of site-specific issues that must be comprehensively evaluated in the EIS. The GEIS, and exclusion of all Category 1 issues in 10 CFR 54 unfairly eliminates important issues from the EIS Scoping process, eliminates our FULL RIGHTS to redress as (removed are) guaranteed in the First Amendment, and places our community in grave risk by basically sweeping important site-specific issues at Indian Point under the regulatory carpet.

It is not in the best interest of public health and safety, or the environment, to have a narrowly defined Scope in the EIS Scoping process. By not fully evaluating the Environmental Impacts and Costs of the above stated non-generic issues, the NRC will fail to complete a reasonable and responsible EIS, as required by NEPA. Life, and the world we live in has changed dramatically since September 11, 2001, and the License Renewal GEIS fails to factor in that reality, fails to adequate recognize the fact that all those once Generic Issues are no longer Generic but site-specific important issues for communities living in high target areas such as New York and its surrounding suburbs.

As example, the NRC has attempted to keep the Emergency Plan as well as the Environmental Impacts and Costs of A) a significant nuclear incident with off-site radiological contamination, and B) a successful terrorist attack on a nuclear facility with off-site migration of radiological contaminants from being considered in the site-specific environmental impact statement. The claimed reasoning for this is two fold. First, the Evacuation Plan is a

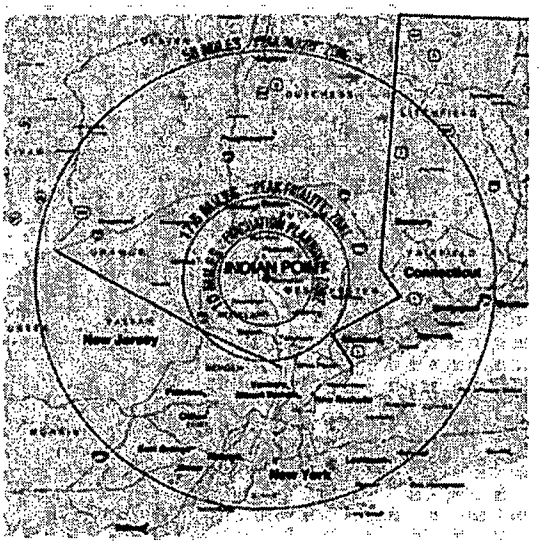
living document, constantly being revised and reworked as new information and experience dictates. Secondly, the NRC and the nuclear industry claim the likely chance of such events is so remote as to not warrant consideration. However, FEMA and other agencies of the Federal Government including Homeland Security disagree. Below, is an excerpt from the FEMA web site:

Nuclear Power Plant Emergency

Nuclear power plants use the heat generated from nuclear fission in a contained environment to convert water to steam, which powers generators to produce electricity. Nuclear power plants operate in most states in the country and produce about 20 percent of the nation's power. Nearly 3 million Americans live within 10 miles of an operating nuclear power plant.

Although the construction and operation of these facilities are closely monitored and regulated by the Nuclear Regulatory Commission (NRC), accidents are possible. An accident could result in dangerous levels of radiation that could affect the health and safety of the public living near the nuclear power plant.

Local and state governments, federal agencies, and the electric utilities have emergency response plans in the event of a nuclear power plant incident. The plans define two "emergency planning zones." One zone covers an area within a 10-mile radius of the plant, where it is possible that people could be harmed by direct radiation exposure. The second zone covers a broader area, usually up to a 50-mile radius from the plant, where radioactive materials could contaminate water supplies, food crops, and livestock.



Even more disturbing on the FEMA web pages, is the fact that they have no information available for citizens on how to RECOVER from a radiological

event. Below, from the FEMA web site are the disasters they give specific recovery information on:

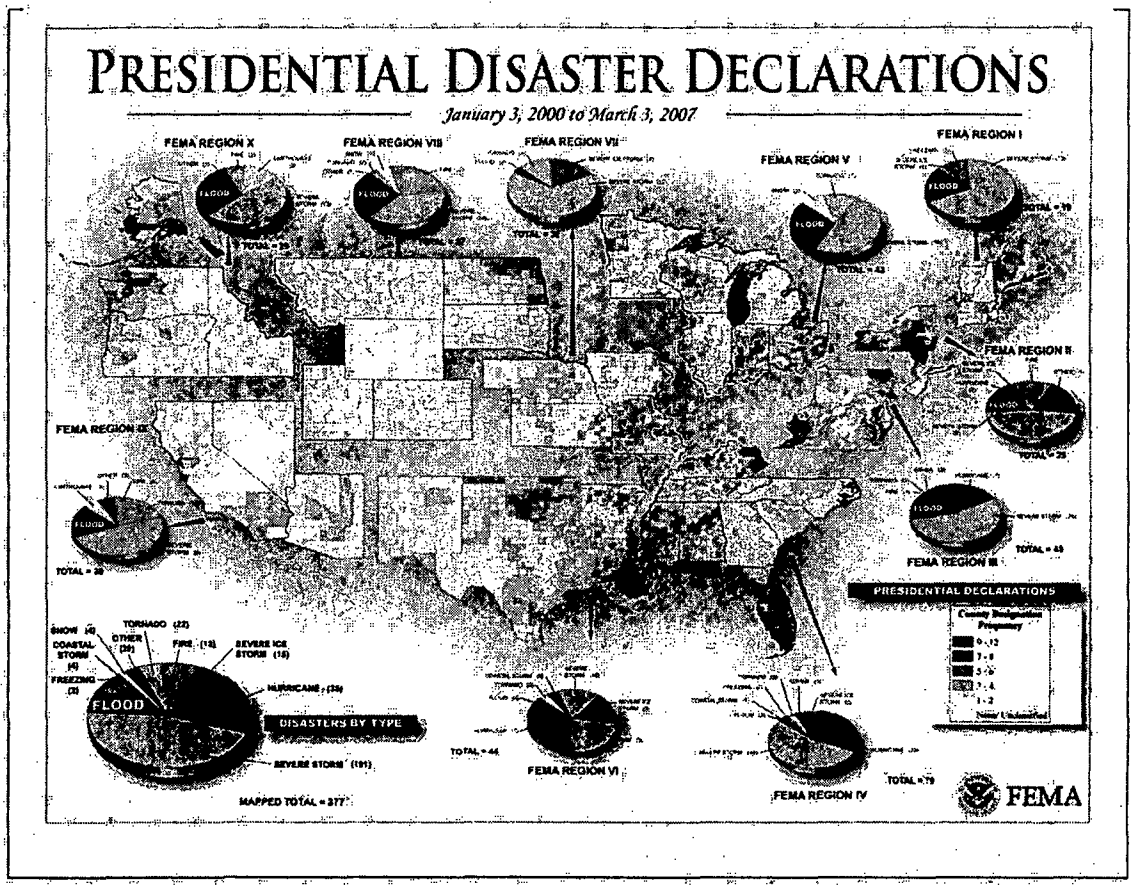
Specific Disaster Recovery Information

- Dam Failure
- Earthquake
- Fire or Wildfire
- Flood
- Hazardous Material Incident
- Landslide
- Thunderstorm
- Tsunami
- Wildfire

Citizens in New York, Connecticut and New Jersey are in grave peril should a radiological event or terrorist attack occur with off-site migration of radiological contaminants. If, as in Hurricane Katrina, FEMA's emergency response ends up being a dismal failure, vast numbers of human lives are at risk. Those occurrences, the potential of Emergency Plan failure, and the resultant Environmental Impacts and Costs must be examined in the Site Specific Environmental Impact Statement.

A Radiological Disaster Declaration

Some of Us Could Be Dead by the Time Such a Declaration is Issued



The NRC must be held accountable to its organizing mandate which is to "give reasonable assurance of adequate protection of public health and safety". Therefore the only way the NRC can reasonably assure public health and safety adequately is to conduct a comprehensive and fully scoped EIS that investigates ALL Category 1 and Category 2 issues associated with Entergy's License Renewal Application for IP2 LLC and IP3 LLC.

In **the public interest** the NRC should grant the requested exemption. The requested exemption meets the criteria of 10 CFR 51.6, and should be granted.

FUSE and the undersigned co-signers formally request that an exemption be granted to waive the GEIS for Entergy's specific License Renewal Applications for Indian Point 2 and Indian Point 3, and require Entergy, the Applicant, to evaluate all Category 1 and Category 2 issues, for Indian Point 2 and Indian Point 3.

Additionally, FUSE and the undersigned co-signers formally request that the EIS for Indian Point 2 and Indian Point 3 scopes as two independent and separate EIS documents.

Respectfully Submitted,

Susan Shapiro
Counsel for FUSE USA

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FUSE USA
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ENTERGY CONTENTION NYS-17B
ATTACHMENT 8

SCHNEIDERMAN CHALLENGES FEDS' NEW PLAN TO DUMP NUCLEAR WASTE AT INDIAN POINT FOR 60 YEARS POST-CLOSURE

A.G. Sues Nuclear Regulatory Commission for Authorizing Nuke Plants to Dump Radioactive Wastes onsite for 60 Years After Closure, Without Mandated Review

Schneiderman: Whether For or Against Re-Licensing Indian Point, We Can All Agree that Environmental, Public Health & Safety Risks Should Be Assessed Before Dumping Waste There After Plant is Closed

[En Español]

BUCHANAN – New York Attorney General Eric T. Schneiderman today announced that he is suing the federal Nuclear Regulatory Commission (NRC) for approving a regulation that would allow the use of Indian Point and nuclear power facilities across the nation as storage sites for radioactive waste for at least 60 years after their closure. The NRC's approval would allow the long-term storage of nuclear waste without completing the federally required review of the public health, safety and environmental hazards such storage would pose. Attorney General Schneiderman is leading a coalition of state attorneys general, including Connecticut and Vermont's, in calling on the federal government to conduct necessary impact studies before deciding that nuclear waste should be stored onsite.

"Whether you're for or against re-licensing Indian Point, we can all agree on one thing: Before dumping radioactive waste at the site for at least 60 years after it's closed, our communities deserve a thorough review of the environmental, public health, and safety risks such a move would present," said **Attorney General Schneiderman.** "This is not just a safety and environmental issue, but also one that could affect property values in Westchester, and I am committed to forcing the feds to take the hardest look possible at the risks of long-term, onsite storage, before they allow our communities to become blighted and our families, properties, and businesses threatened by radioactive waste dumps for generations to come."

In the lawsuit filed today, Attorney General Schneiderman challenges both a NRC rule amending federal regulations and its "Waste Confidence Decision Update" – both issued on December 23, 2010 – as violating two federal laws, the Administrative Procedure Act (APA) and the National Environmental Policy Act (NEPA). The APA is a federal law that governs the way in which federal administrative agencies may propose and establish regulations, while the NEPA is a federal law requiring federal government agencies to study the environmental impacts of proposed federal agency actions.

The Attorney General charges that the NRC violated the two federal laws when it found – without conducting the necessary studies – that no significant safety or environmental impacts will result from storing highly radioactive nuclear wastes onsite at the more than 100 operating reactors around the country, including from the three Indian Point reactors in Westchester County, for 60 or more years after the reactors are closed.

Attorney General Schneiderman further charges that the NRC violated these laws when it found "reasonable assurance" that sufficient, licensed, off-site storage capacity will be available to dispose of nuclear power plant waste "when necessary." Efforts to site the only nuclear waste storage facility in the United States, the Yucca Mountain Repository in Nevada, were suspended in 2010 and no replacement facility has yet been identified.

The Attorney General argues in the lawsuit that full compliance with the APA and NEPA require the NRC to conduct a site-by-site analysis of the potential for environmental, health and safety impacts. An analysis of this type, if conducted thoroughly and objectively, would identify any environmental, health and safety risks related to long-term, onsite storage of radioactive waste at each site, as well as those mitigation measures (such as increased groundwater monitoring, reinforced containment structures, or repair of leaking spent fuel pools) needed to fully address them.

Paul Gallay, Executive Director and Hudson Riverkeeper, said, "We applaud Attorney General Schneiderman for challenging a decision by the NRC that defies science, logic and common sense. Last month, we filed an action with Hudson River Sloop Clearwater which faulted the NRC for its plans for allowing the storage of this hazardous waste at Indian Point. We are fully behind the Attorney General's efforts and look forward to working together to ensure that Indian Point's nuclear waste does not sit on the banks of the Hudson River, wreaking further havoc on our environment for decades to come."

Manna Jo Greene, Environmental Director of Hudson River Sloop Clearwater, said, "The NRC's failure to study the impacts of allowing our communities to become radioactive waste sites for generations to come is both outrageous and dangerous. The potential environmental, health and safe threats posed by long-term, onsite storage of large amounts of nuclear waste may be an inconvenient truth for the NRC, but it is very real for many New Yorkers. We applaud Attorney General Schneiderman for challenging the NRC's blatant and reckless disregard for the well-being of our communities."

Since taking office, Attorney General Schneiderman has fought to put the health and safety of New Yorkers first. In January, he filed a lawsuit against a Pennsylvania-based power plant for violating the Clean Air Act and threatening New York's air quality. Earlier this week, Schneiderman led a coalition of state attorneys general in calling on the U.S. House of Representatives to keep critical environmental regulations protecting New Yorkers from mercury and other toxins hazardous to human health and the environment.

The lawsuit, filed in the United States Court of Appeals for the District of Columbia Circuit, asks the Court to invalidate the rule and remand it back to NRC with a directive that the Commission fully comply with the APA and NEPA.

The NRC is a federal government agency, headed by five Commissioners, established by the Energy Reorganization Act in 1974 as a successor to the disbanded United States Atomic Energy Commission. The Commission's responsibilities include reactor safety and security, reactor licensing and renewal, radioactive material safety, security and licensing, and spent fuel management (storage, security, reprocessing, and disposal).

This matter is being handled by Assistant Attorneys General Janice Dean and John Sipos of the Attorney General's Environmental Protection Bureau and Assistant Solicitor General Monica Wagner, under the supervision of Executive Deputy Attorney General for Social Justice, Janet Sabel.