

March 30, 2012

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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

NRC STAFF'S INITIAL STATEMENT OF POSITION ON
CONTENTION NYS-17, 17A, 17B (LAND USE)

Pursuant to 10 C.F.R. §§ 2.1207(a)(1) and 2.337(g)(2), Scheduling Order (July 1, 2010) (unpublished) at 14, and Order (Granting NRC Staff's Unopposed Time Extension Motion and Directing Filing of Status Updates) (February 16, 2012) (unpublished) at 1, the Staff of the U.S. Nuclear Regulatory Commission ("Staff" or "NRC Staff") submits its initial written statement of position and written testimony with supporting affidavits and exhibits on New York State's ("NYS") Contentions NYS-17, 17A and 17B ("NYS-17 (Consolidated)") regarding the analysis of off-site land use in the Environmental Report filed by Entergy Nuclear Operations, Inc. ("Entergy") in its license renewal application for Indian Point Nuclear Generating Units 2 and 3 ("Indian Point"), the Draft Generic Environmental Impact Statement for License Renewal of Nuclear Plants, Supplement 38, Regarding Indian Point Nuclear Generating Unit Nos. 2 and 3 ("DSEIS"), and the Final Generic Environmental Impact Statement for License Renewal of Nuclear Plants, Supplement 38, Regarding Indian Point Nuclear Generating Unit Nos. 2 and 3 ("FSEIS"). Appended to this filing is the "NRC Staff Testimony of Jeffrey J. Rikhoff, Andrew L. Stuyvenberg, and John P. Boska Concerning Contentions NYS-17, 17A and 17B (Land Use) ("Staff Land Use Testimony") (NRC000081) and two Staff Exhibits. For the reasons set forth below and in the testimony filed herewith, the

Staff submits that the analysis of off-site land use in the ER, DSEIS and FSEIS satisfies the requirements of the National Environmental Policy Act (“NEPA”) and the NRC’s regulations implementing that statute. NYS-17 (Consolidated), which asserts that the analyses are deficient, cannot be sustained.

BACKGROUND

New York State (“NYS”) Contention NYS-17 alleges:

The Environmental Report fails to include an analysis of adverse impacts on off-site land use of license renewal and thus erroneously concludes that relicensing of IP2 and IP3 “will have a significant positive impact on the communities surrounding the station” (ER Section 8.5) and understates the adverse impact on off-site land use (ER Sections 4.18.4 and 4.18.5) in violation of 10 C.F.R. Part 51, Subpart A, Appendix B.

New York State Notice of Intention to Participate and Petition to Intervene, filed November 30, 2007 at 167. In support of this contention, New York asserted that the analysis of land use impacts in the ER was deficient “because it ignores the positive impact on land use and land value from denial of the license extension.” *Id.* at 168. New York stated that the ER “looks only at tax-driven and population-driven impacts” and “completely ignor[es] the impact on adjacent lands of the unexpected continued operation of a nuclear generating facility.” *Id.* at 169. Further, New York asserted that property values in the vicinity of the Indian Point site would rise if the licenses were not renewed, relying on the Declaration of Stephen C. Sheppard and a report which he had authored. *Id.* at 172-74. Both the Applicant and the Staff opposed the admission of Contention 17. The Board admitted Contention NYS-17 stating that “Entergy should have considered the impact on real estate values that would be caused by license renewal or non-renewal.”¹

¹ *Entergy Nuclear Operations, Inc.* (Indian Point Nuclear Generating Units 2 and 3), LBP-08-13, 68 NRC 43, 217 (2008).

In December 2008, the Staff issued the DSEIS. In the DSEIS, the Staff provided a preliminary analysis of the environmental impacts of license renewal and alternatives thereto. Like the Applicant's ER, the DSEIS considered population-related and tax-revenue-related offsite land use impacts, and it concluded that there would be no population-related or tax-revenue-related land use impacts "during the license renewal term beyond those already being experienced." DSEIS § 4.4.3, at 4-40 – 4-41. Further, however, the Draft SEIS explicitly evaluated the impact on property values that might result from non-renewal of the licenses, and concluded as follows:

The shutdown of IP2 and IP3 may result in increased property values of the homes in the communities surrounding the site (Levitan and Associates, Inc. 2005). This would result in some increases in tax revenues. However, to fully offset the revenues lost from the shutdown of IP2 and IP3, taxing jurisdictions most likely would have to compensate with higher property taxes [Id.]. The combined increase in property values and increased taxes could have a noticeable effect on some area homeowners and business, though Levitan and Associates did not indicate the magnitude of this effect and whether the net effect would be positive or negative.

Revenue losses from Indian Point operation would likely affect only the communities closest to and most reliant on the plant's tax revenue and PILOT [Payment-In-Lieu-Of-Taxes]. If property values and property tax revenues increase, some of these effects would be smaller. The NRC staff concludes that the socioeconomic impacts of plant shutdown would likely be SMALL to MODERATE (MODERATE effects for the Hendrick Hudson Central School District, Village of Buchanan, Town of Cortlandt, and the Verplanck Fire District). See Appendix J to NUREG-0586, Supplement 1 (NRC 2002), for additional discussion of the potential impacts of plant shutdown.

DSEIS at 8-29 – 8-30 (emphasis added). The Staff determined that land use impacts resulting from plant shutdown would be "SMALL," as defined in the Generic Environmental

Impact Statement (“GEIS”).² *Id.* at 8-27. In addition, the Staff considered the land use impacts of the “no-action” alternative, in which the operating licenses of IP2 and IP3 are not renewed. In this regard, the Staff observed that “full dismantling of structures and site decontamination may not occur for up to 60 years after plant shutdown,” DSEIS at 8-25, the land use impacts would be similar regardless of whether decommissioning occurs after 40 or 60 years of operation, DSEIS at 8-27, and the land use impacts of plant shutdown would be “SMALL.” *Id.*

Upon issuance of the DSEIS, NYS submitted Contention NYS-17A, which alleges:

The DSEIS fails to address the impact of the continued operation of IP2 and IP3 for another 20 years on off-site land use, including real estate values in the surrounding area in violation of 10 C.F.R. §§ 51.71(a), 51.71(d), 51.95(c)(1) and 51.95(c)(4).³

Nowhere in the amended contention did NYS did address the DSEIS discussion of property value impacts quoted above or the DSEIS discussion of the 60-year decommissioning period. Instead, NYS asserted that if the licenses are not renewed, “the plants would be decommissioned in 6 years such that the site would be available for unrestricted use and all the nuclear wastes at the site would be gone by 2025.”⁴

The Board admitted NYS-17A and consolidated it with NYS-17, finding that NYS-17A “updates the original [contention] to reflect that New York contends that the NRC Staff erred in a similar manner to Entergy and that the original contention is relevant to the Draft SEIS as

² “Generic Environmental Impact Statement for License Renewal of Nuclear Plants,” NUREG-1437, Vol. 1 (May 1996).

³ State of New York Supplemental Contentions concern NRC Staff’s Draft Supplemental Environmental Impact Statement, filed February 27, 2009, at 14.

⁴ *Id.* at 15.

well as to the ER.”⁵

On February 26, 2010, Entergy moved for summary disposition of NYS-17 and NYS-17A.⁶ The Board denied the motion, finding that there was a genuine dispute of material fact regarding the impact of license renewal and non-renewal on land use in the area surrounding Indian Point.⁷ The Board rejected the Staff’s argument that the DSEIS mooted NYS-17. The Board found that there remained a genuine issue of material fact regarding the DSEIS’ analysis of the impact of non-renewal on property values and that summary disposition was, therefore, inappropriate.⁸

In December of 2010, the Staff published the FSEIS. As in the Applicant’s ER and the DSEIS, the FSEIS considered population-related and tax revenue-related offsite land use impacts, and it concluded that there would be no population-related or tax revenue-related land use impacts “during the license renewal term beyond those already being experienced.” FSEIS at 4-45 – 4-47. The FSEIS evaluated the impact on property values that might result from non-renewal of the licenses, and concluded as follows:

The shutdown of IP2 and IP3 may result in increased property values of the homes in the communities surrounding the site (Levitan and Associates, Inc. 2005). This would result in some increases in tax revenues. However, to fully offset the revenues lost from the shutdown of IP2 and IP3, taxing jurisdictions most

⁵ Order (Ruling on New York State’s New and Amended Contention) (June 16, 2009) (unpublished order) at 8.

⁶ Entergy Nuclear Operations, Inc. Motion for Summary Disposition of New York State Contention 17/17A (Property Values) (Feb. 26, 2010).

⁷ Memorandum and Order (Denying Entergy’s Motion for Summary Disposition of NYS Contention 17/17A) (April 22, 2010) (unpublished order) at 11-13.

⁸ *Id.* at 16-17.

likely would have to compensate with higher property taxes [Id.]. The combined increase in property values and increased taxes could have a noticeable effect on some area homeowners and business, though Levitan and Associates did not indicate the magnitude of this effect and whether the net effect would be positive or negative.

Revenue losses from Indian Point operation would affect the communities closest to and most reliant on the plant's tax revenue and PILOT [Payment-In-Lieu-Of-Taxes]. If property values and property tax revenues increase, some of these effects would be smaller. The NRC staff concludes that the socioeconomic impacts of plant shutdown would likely be SMALL to MODERATE (MODERATE effects for the Hendrick Hudson Central School District, Village of Buchanan, Town of Cortlandt, and the Verplanck Fire District). See Appendix J to NUREG-0586, Supplement 1 (NRC 2002), for additional discussion of the potential impacts of plant shutdown.

FSEIS at 8-24 – 8-25. As in the DSEIS, the Staff determined that the magnitude of land use impacts resulting from plant shutdown would be “SMALL,” as defined in the Generic Environmental Impact Statement (“GEIS”). *Id.* at 8-22.⁹

On December 23, 2010, the Commission issued its Waste Confidence Decision Update and, in a parallel rulemaking, its amendments to the Waste Confidence Rule.¹⁰ Therein, the Commission revised the second and fourth findings in its Waste Confidence Decision to reflect its reasonable assurance that a mined geologic repository will be available when necessary and that spent fuel can be stored safely without significant environmental impacts for at least

⁹ The Staff also considered the land use impacts of the “no-action” alternative, in which the operating licenses of IP2 and IP3 are not renewed. As in the DSEIS, the Staff observed that “[f]ull dismantling of structures and decontamination of the site may not occur for up to 60 years after plant shutdown,” FSEIS at 8-20, the land use impacts would be similar regardless of whether decommissioning occurs after 40 or 60 years of operation, *id.*, and the land use impacts of plant shutdown would be “SMALL.” FSEIS at 8-22.

¹⁰ 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) (to be codified at 10 C.F.R. § 51.23(a) (effective Jan. 24, 2011)); “Waste Confidence Decision Update,” 75 Fed. Reg. 81,037 (Dec. 23, 2010).

60 years beyond the licensed life of a reactor (including the term of a renewed or revised license).¹¹

On January 24, 2011, NYS submitted Contention NYS-17B, which alleges:

The FSEIS fails to address the impact of the continued operation of IP2 and IP3 for another 20 years on off-site land use, including real estate values in the surrounding area in violation of 10 C.F.R. §§ 51.71(a), 51.71(d), 51.95(c)(1) and 51.95(c)(4).¹²

Contention NYS-17B was accompanied by a motion for leave to file amended bases arising from the Waste Confidence Decision Update and a petition for waiver or exemption.¹³ While the Staff did not oppose Contention NYS-17B to the extent that it updated Contentions 17 and 17A to refer to the FSEIS, the Staff opposed the new contention on the grounds that it constituted an impermissible challenge to the regulation governing the storage of spent fuel, lacked an adequate basis, and was untimely¹⁴.

The Board admitted Contention NYS-17B in part. The Board rejected the contention's claim with respect to the environmental impacts of long-term storage of spent fuel as "specifically barred".¹⁵ The Board, however, admitted the contention to the extent that it raised

¹¹ *Id.* at 81,038.

¹² State of New York Contention 17B (Jan 24, 2011).

¹³ State of New York Motion for Leave to File Timely Amended Bases to Contention 17A (Now to Be Designated Contention 17B) (Jan 24, 2011) and 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).

¹⁴ NRC Staff's Answer to the State of New York's Motion for Leave to File amended Bases to Contention 17A (to Be Designated 17B) and Request for an Exemption or Waiver (Feb. 18, 2011) at 15-30.

¹⁵ Memorandum and Order (Ruling on Pending Motions for Leave to File New and Amended Contentions) (July 6, 2011) (unpublished order) at 16-18.

an issue with respect to “the impact of [Indian Point] components’ long-term on-site existence upon surrounding property values”.¹⁶ The Board found it unnecessary to rule on NYS’ request for exemption or waiver.¹⁷

In response to a motion by Entergy for clarification of the Order admitting Contention NYS-17B, the Board explained “the impact of IP2’s and IP3’s components on nearby property values may be litigated in this proceeding, but impacts attributed solely to the presence of spent fuel itself may not be litigated in this proceeding.”¹⁸

DISCUSSION

I. Legal and Regulatory Requirements

Contention NYS-17 (Consolidated) arises under the National Environmental Policy Act of 1969, as amended (NEPA), and the NRC’s regulations that implement this statute. 42 U.S.C. §§ 4321 *et seq*; 10 C.F.R. Part 51. Under NEPA, the NRC is required to take a “hard look” at the environmental impacts of a proposed action, as well as reasonable alternatives to that action. See *Louisiana Energy Servs., L.P.* (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 87-88 (1998). This “hard look” is tempered by a “rule of reason” that requires agencies to address only impacts that are reasonably foreseeable – not remote and speculative. See, e.g., *Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), ALAB-156, 6 AEC 831, 836 (1973). “NEPA does not call for certainty or precision, but an *estimate* of anticipated (not unduly speculative) impacts.” *Louisiana Energy Servs.* (National

¹⁶ *Id.*

¹⁷ *Id.* at 18-19.

¹⁸ Memorandum and Order (Granting Entergy’s Request for Clarification) (August 10, 2011)(unpublished order) at 5.

Enrichment Facility), CLI-05-20, 62 NRC 523, 536 (2005) (emphasis in original). Further, “NEPA gives agencies broad discretion to keep their inquiries within appropriate and manageable boundaries.” *Louisiana Energy Servs., L.P.*, CLI-98-3, 47 NRC at 103 (citation omitted). The test is whether the EIS “contains a reasonably thorough discussion of the significant aspects of the probable environmental consequences . . . and a rational connection between the facts found and the choice made”. *Save the Peaks Coalition v. U.S. Forest Service*, 669 F.3d 1025, ____ (9th Cir. 2012) (internal citations and quotation marks omitted). Where a brief statement of the issue will suffice to address an issue, no more is required. “The agency may limit its discussion of environmental impact to a brief statement, when that is the case, that the alternative course involves no effect on the environment, or that their effect, briefly described, is simply not significant.” *Natural Resources Defense Council v. Morton*, 458 F.2d 827, 834 (D.C. Cir. 1972).

Generally, an Applicant has the burden of proof in a licensing proceeding. 10 C.F.R. § 2.325. In cases involving NEPA contentions, however, the burden shifts to the NRC, because the NRC, not the Applicant, has the burden of complying with NEPA. See, e.g., *Duke Power Co. (Catawba Nuclear Station, Units 1 & 2)*, CLI-83-19, 17 NRC 1041, 1049 (1983). However, because “the Staff, as a practical matter, relies heavily upon the Applicant's ER in preparing the environmental impact statement (“EIS”), should the Applicant become a proponent of a particular challenged position set forth in the EIS, the Applicant, as such a proponent, also has the burden on that matter.” *Louisiana Energy Servs., L.P.* (Claiborne Enrichment Center), LBP-96-25, 44 NRC 331, 339 (1996), *rev'd on other grounds by Louisiana Energy Servs., L.P.* (Claiborne Enrichment Center) CLI-97-15, 46 NRC 294 (1997) (citing *Pub. Serv. Co. of New Hampshire (Seabrook Station, Units 1 and 2)*, ALAB-471, 7 NRC 477, 489 n.8 (1978)).

II. STAFF WITNESSES

The Staff's witnesses are Jeffery J. Rikhoff, Andrew L. Stuyvenberg and John P. Boska. Mr. Rikhoff is a Senior Environmental Scientist and Socioeconomist in the Division of License Renewal in the Office of Nuclear Reactor Regulation at the NRC. He has 23 years of experience with NEPA reviews and specializes in preparing EISs, environmental assessments, and comprehensive land-use and facility development planning studies. He served as the principal reviewer of the socioeconomic portions of the ER Entergy submitted for the Indian Point license renewal. He prepared the portion of the Staff's FSEIS and DSEIS that addressed the socioeconomic impacts of plant operations during the license renewal period. Mr. Rikhoff holds Masters Degrees in Regional Environmental Planning and International Economic Development and Appropriate Technology.

Mr. Stuyvenberg is a Project Manager in the Division of License Renewal in the Office of Nuclear Reactor Regulation at the NRC. He serves as the subject-matter expert in the area of energy alternatives. He has worked on the alternative analyses for nineteen Staff EISs. Mr. Stuyvenberg holds a Masters Degree in Environmental Management in Environmental Economics and Policy. His coursework included environmental and natural resource economics, statistical methods for surveys, econometrics, and land-use policy.

Mr. Boska is a Senior Project Manager in the Division of Operating Reactor Licensing in the Office of Nuclear Reactor Regulation, NRC. He is currently the licensing project manager for Indian Point, in which capacity he has served for almost 7 years. As the licensing project manager for Indian Point, Mr. Boska issued the NRC review of the Indian Point decommissioning cost estimate. In April 2012, he will move on to serve as the licensing project manager for Oconee Nuclear Station Units 1, 2 and 3. Mr. Boska is a graduate of the U.S. Navy Officer Nuclear Power School and holds a BA in Physics, a BS in Nuclear Science, and an MS in Electrical Engineering.

III. PURPOSE OF STAFF WITNESS TESTIMONY

The purpose of Mr. Rikhoff's testimony is to discuss the Staff's analysis of offsite land use in the DSEIS and the FSEIS and the analysis of housing values in the Generic Environmental Impact Statement.

The purpose of Mr. Stuyvenberg's testimony is to present the Staff's views regarding the analysis of offsite land use impacts in the No-Action Alternative discussion in the DSEIS and FSEIS and to address deficiencies in the testimony of NYS's witness, Dr. Sheppard.

The purpose of Mr. Boska's testimony is to provide information regarding the schedule of decommissioning activities at Indian Point.

IV. TESTIMONY

A. Direct Testimony

Entergy and the Staff are not required to address the impact of license renewal on real estate values for property in the area surrounding Indian Point. Staff Land Use Testimony at pp. 7-8. The issue to be determined is whether continued nuclear power plant operations will cause the use of the land to change; the issue is not whether continued operations will cause the value of the land to change. *Id.*

When the GEIS was being formulated, the only issues raised with respect to offsite land use were changes brought about by changes in tax-revenue and population (specifically, the in-migration of workers for continued operations and refurbishment). *Id.* at 8. GEIS Section 4.7.4, p. 4-107 to 109 (NYS000131B).

Entergy in its ER, and the Staff in its DSEIS and FSEIS, adequately addressed tax-revenue and population-related impacts on offsite land use for Indian Point. Staff Land Use Testimony at 8-12. The ER met the requirements of 10 C.F.R. § 51.53(c)(3)(ii)(I) and was consistent with the regulatory guidance provided in Regulatory Guide 4.2, Supplement 1 (ENT000136). Staff Land Use Testimony at 8-9. The DSEIS met the requirements of 10

C.F.R. § 51.71(d) and was consistent with the guidance in NUREG-1555, Supplement 1, Section 4.4.3 (NYS000220). Staff Land Use Testimony at 9-10. The FSEIS met the requirements of 10 C.F.R. § 51.95(c) and was consistent with the guidance in NUREG-1555, Supplement 1, Section 4.4.3 (NYS000220). Staff Land Use Testimony at 10, 12. In both the DSEIS and the FSEIS, the Staff found that because Entergy did not plan to increase the number of non-outage workers during the license renewal term at IP2 and IP3 or undertake any construction or other improvements to the nuclear power plant, there would be no impact on offsite land use at Indian Point as a result of license renewal. *Id.* The Staff concluded that there would be no impacts beyond those that had already occurred as a result of the construction and prior operation of IP2 and IP3. *Id.* at 13-14.

Entergy in its ER and the Staff in its DSEIS and FSEIS were not required to analyze the impact of license renewal on offsite property values. *Id.* at 14.

B. Rebuttal Testimony

1. Housing Value in the GEIS

While the Staff was not required to analyze the impacts of license renewal on offsite property values, that issue was addressed in the GEIS. *Id.* at 14, see GEIS Section 4.7.1.2 “Housing Marketability”, NYS000131C, p. 4-102-103. The GEIS concluded: “The license renewal term of the plants will be very much like the original operations period” and therefore projected “only small impacts on housing value and marketability”. *Id.*

The GEIS based its conclusion on the results of a study of socioeconomic impacts on seven plants, chosen to reflect a “broad range of population remoteness, geographic location, and plant age.” Appendix C, NYS000131F, p. C-5. Indian Point was included in the study “because it is located in an area with high population and in close proximity to New York City.” *Id.* The GEIS explained that there are two types of housing impacts: impacts related to the in-migration of additional plant workers and continuing impacts related to the housing

demands of workers involved in periodic plant outages for refueling and maintenance. GEIS, NYS000131B at p. 4-101. But the GEIS went on to discuss a third impact unrelated to worker demands – the “continuing impact of the plant on housing value and marketability.” *Id.* This is the impact of continued operations associated with license renewal that is the focus of Contention NYS-17. That impact has been addressed in the GEIS as an impact on housing; it is not required to be addressed under the rubric of offsite land use impacts.

Housing value impacts of license renewal for properties near Indian Point are discussed in detail in GEIS, Appendix C, sections C.4.4.2.1 and C.4.4.2.2. NYS000131G at pp. C-82 to C-85. The GEIS Appendix C concluded that with respect to Indian Point, “Housing impacts related to housing value and marketability that occur during the license renewal term are the same as those currently being experienced.” *Id.* at p. C-85.

Mr. Rikhoff testifies that the same reasoning applies now for license renewal as it did when the GEIS was written. Staff Land Use Testimony at 15. Because any impact to property values would have occurred prior to or during plant construction, any impact is already reflected in current property values; and it is reasonable to expect that the GEIS’s conclusion of small impacts will continue. *Id.* Where, as here, the matter is straightforward, a brief statement that there is no impact and explaining why that is so, will suffice. *Natural Resources Defense Council v. Morton*, 458 F.2d at 834.

2. The No-Action Alternative

Contrary to NYS Contention 17B (State of New York, Contention17B (Jan. 24, 2011) at 2), the Staff did adequately evaluate the impact on land use and land value as a result of denial of license renewal at Indian Point. In FSEIS Section 8.2, No-Action Alternative, the Staff addressed the impacts on offsite land use resulting from Indian Point shutdown and also addressed the effect shutdown could have on property values in the surrounding area. Staff Land Use Testimony at 17-19. The Staff stated that “The shutdown of IP2 and IP3 may result

in increased property values of the homes in the communities surrounding the site.” FSEIS at 8-25. The Staff noted, however, that those increases could trigger increased tax revenues. The Staff stated that the study it had did not indicate the magnitude of the effect on property values and the tax effect and did not state whether the net effect would be positive or negative. *Id.* Thus, the Staff did address the impact on land use and land value as a consequence of the No-Action Alternative. The Staff’s inability to quantify the impact does not render the Staff’s analysis invalid or inadequate. The regulations acknowledge that not all impacts may be quantified. The regulation in 10 C.F.R. § 51.71(d) provides, “To the extent that there are important qualitative considerations or factors that cannot be quantified, these considerations or factors will be discussed in qualitative terms.” Moreover, NEPA does not require an EIS to rise to the level of a “research document” and does not require agencies to undertake “virtually infinite study and resources.” *Pilgrim*, CLI-10-11, 71 NRC at 315. As the Commission recognized in the *Pilgrim* decision, “there will always be more data that could be gathered [and] agencies must have some discretion to draw the line and move forward with decisionmaking.” *Id.* (internal citation and quotations marks omitted).

3. Decommissioning

NYS’s expert, Dr. Sheppard, discusses several different scenarios that assume different for decommissioning. In his 2007 report, “Potential Impacts of Indian Point Relicensing with Delayed Site Reclamation,” Dr. Sheppard assumed that decommissioning would be completed by 2025 (NYS000224 at p. 2). In his January 24, 2011 Report, he proposes four scenarios for consideration with decommissioning completion dates ranging from 2025 to 2137. NYS000230 at p. 4. He asserts that the highest and best alternative use of the site would be an “attractive riverfront development that would be likely to include employment and other attractive locations.” *Id.* at 3. Dr. Sheppard’s assertion of the highest and best alternative use of the site as a riverfront development apparently assumes that all of

the structures associated with nuclear power generation will be removed from the site as part of decommissioning.

Dr. Sheppard assumes decommissioning activity that is beyond that required by NRC regulations and he posits several decommissioning dates that are not correct. In order to assist the Board and to clarify the situation with respect to decommissioning, Mr. Boska has provided testimony regarding the Indian Point decommissioning schedule and activities.

Mr. Boska testifies that the current schedule for decommissioning Indian Point is premised on the expiration of the operating license for IP2 on September 28, 2013 and that because Entergy has decided to use the delayed decommissioning option known as SAFSTOR, decommissioning must be complete by the end of 2073 for IP2 and 2075 for IP3.¹⁹ Staff Land Use Testimony at 20-22. If Entergy's operating licenses are renewed, decommissioning must be completed by 2093 for IP2 and 2095 for IP3. *Id.* at 22.

Mr. Boska explains that the NRC's decommissioning regulations (10 C.F.R. §§ 50.82, 20.1401, and 20.1406) require Entergy to remove radioactive material (excluding spent fuel) from the site as part of decommissioning. *Id.* at 21. He points out, however, that the decommissioning regulations do not require the removal of all structures and buildings. *Id.*

Regarding spent fuel, Mr. Boska testifies that spent fuel is addressed by regulations in 10 C.F.R. § 50.54(bb) that are separate from the decommissioning regulations. *Id.* at 19-20. He further testifies that Indian Point has an independent spent fuel storage installation ("ISFSI") that contains approximately 19 dry storage casks loaded with spent fuel. *Id.* at 22. He explains that the ISFSI will be removed after the U.S. Department of Energy ("DOE") takes

¹⁹ None of the dates Mr. Boska provided take into account the potential effect of timely renewal pursuant to 10 C.F.R. § 2.109(b).

possession of the spent fuel and that Entergy currently estimates that DOE will finish taking possession of all spent fuel from Indian Point in 2047. *Id.* He states, however, that there is considerable uncertainty associated with that date. *Id.* Mr. Boska also testifies that once the spent fuel has been transferred to DOE, any remaining radioactive material associated with the ISFSI must be disposed of under the decommissioning plan. *Id.*

Mr. Boska's testimony is being proffered for the purpose of clarifying the situation with respect to decommissioning activities at Indian Point and the time period for those activities. The purpose here is merely to assist the Board and the parties by providing them with factual information. The Staff maintains that the impacts of decommissioning will not be significantly different whether Indian Point's license is renewed or not. GEIS, Section 7.4, p. 7-25.

4. Deficiencies in Dr. Sheppard's Analyses

In his testimony, Mr. Stuyvenberg identifies several deficiencies in Dr. Sheppard's analyses.

First, as Mr. Stuyvenberg explains, Dr. Sheppard's selection of his "treatment group" is not supportable from a historical perspective. Staff Land Use Testimony at 23-24. According to Dr. Sheppard his "treatment group" consists of those properties that have suffered a decrease in property value as a result of the disamenity represented by Indian Point. NYS000224 at 29. The time period Dr. Sheppard uses, however, does not relate to the period of time the alleged disamenity would have occurred. Dr. Sheppard uses a time period that starts in 1974. *Id.* But, as Mr. Stuyvenberg testifies, Unit 1 was in operation and Unit 2 structures were in place sufficient to allow fuel loading and testing by 1971. Staff Land Use Testimony at 24. Assuming there was a disamenity associated with Indian Point, it would have been in effect prior to the period Dr. Sheppard uses for purposes of his analysis. Dr. Sheppard's analyzes Indian Point-driven changes in home prices by evaluating the sales prices for a set of homes sold both prior to 1974 and after 1976. This does not, however,

capture the effect of Indian Point's conversion to a nuclear power plant site or the introduction of plant structures to the site. *Id.*

Second, Dr. Sheppard erroneously presents alleged historical impacts on property values for the area surrounding Indian Point as if they are current impacts. Because it is likely that almost all homeowners in the area have purchased their homes since 1976, Dr. Sheppard's analysis indicates that virtually no current homeowners would experience any loss. *Id.* at 25-26.

Third, Dr. Sheppard's analyses exclude recent home sales data. Data through December 2011 shows an overall decline in property values in New York but Dr. Sheppard considers home sales only through mid-2009 in his control group. *Id.* at 26.

Fourth, Dr. Sheppard asserts that the issue of offsite land use is driven by changes in land values. But that assertion reflects his opinion only. *Id.* He does not establish that changes in property values result in any specific effects on land use. *Id.* The GEIS, however, specifically addressed the impact of license renewal on housing values and found that there was little if any effect.²⁰

Fifth, as Mr. Stuyvenberg explains, Dr. Sheppard's analysis is inapposite to the license renewal decision. Staff Land Use Testimony at 27-28. The analysis does not directly address the impact that license renewal will have on land use and how it differs from the impacts of the no action.

Sixth, the GEIS addresses the effect of license renewal on property values not in the context of offsite land use, but directly in the context of housing. NYS000131B at 4-101 to

²⁰ GEIS, Section 4.7.1, pp. 4-102 to 103. In addition, Dr. Sheppard's analysis is contrary to the determination in the GEIS that the only two impacts to be considered in the analysis of offsite land use are population and tax-related impacts. NYS000131B at 4-107 to 109.

103. Staff Land Use Testimony at 28-29. Not only that, but the GEIS determination that license renewal would have little if any effect on housing value and marketability was supported by a case study of Indian Point. The Indian Point case study can be found in the GEIS at Appendix C at C-82 to 85 (NYS000131G, C-82 to 85). The Indian Point case study reported that

Local realtors agree that housing values in communities neighboring the plant have not been deflated because of the presence of Indian Point. Homes in the immediate area are moderately priced and are currently selling very fast on the market. Development within 3 km (2 miles) of the plant include homes in the \$400,000 to \$600,000 range. Representatives of the Westchester County Office of Community Development believe otherwise, however, and indicated that the presence of the plant had perpetuated the image of these communities being low to middle class.

In summary, it appears that neither construction nor operation of the Indian Point plants has considerably affected housing in the communities neighboring the plants or in the whole of Westchester and Dutchess counties.

GEIS Section 4.4.2.1, Housing, Impacts from Plant Construction and Operation, pp. C-83 to 84, also discussed at Staff Land Use Testimony at 14-15. Dr. Sheppard's claim that property value should be addressed in the context of offsite land use is thus contrary to the GEIS.

Finally, Dr. Sheppard has not provided the data he used. *Id.* at 29. Consequently, the Staff is unable to confirm the effect on property values that Dr. Sheppard claims has occurred. *Id.* In addition, the Staff is unable to determine whether other types of events may have had a similar, long-term effect on property values. *Id.* Given that Dr. Sheppard's "treatment group" is not supportable from a historical perspective, it is possible that the effect, or some portion of the effect, that Dr. Sheppard claims is a result of Indian Point may actually be attributable to other events. *Id.*

CONCLUSION

For the reasons set forth above, the Staff submits that the analysis of off-site land use in the Environmental Report, the Draft Supplemental Environmental Impact Statement and the

Final Supplemental Environmental Impact Statement satisfies the requirements of the National Environmental Policy Act and the NRC's regulations implementing that statute. Therefore, Contentions NYS-17, 17A and 17B, which assert that the analyses are deficient, cannot be sustained.

Respectfully submitted,

/Signed electronically by/

Beth N. Mizuno
Counsel for NRC Staff
U.S. Nuclear Regulatory Commission
Mail Stop O-15 D21
Washington, DC 20555-0001
Telephone: (301) 415-3122
E-mail: Beth.Mizuno@nrc.gov

Dated at Rockville, Maryland
This 30th day of March 2012

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing NRC STAFF'S INITIAL STATEMENT OF POSITION ON CONTENTION NYS-17 (LAND USE) (NRC STAFF EXHIBIT NRC000080), NRC STAFF'S TESTIMONY OF JEFFREY J. RIKHOFF, ANDREW L. STUYVENBERG, AND JOHN P. BOSKA CONCERNING CONTENTION NYS-17 (LAND USE) (NRC STAFF EXHIBIT NRC000081), and NRC STAFF EXHIBITS NRC000082 THROUGH NRC000086, dated March 29 and 30, 2012, in the above-captioned proceeding have been served on the following by Electronic Information Exchange this 30th day of March, 2012.

Lawrence G. McDade, Chair
Atomic Safety and Licensing Board Panel
Mail Stop - T-3 F23
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001
E-mail: Lawrence.McDade@nrc.gov

Office of Commission Appellate
Adjudication
U.S. Nuclear Regulatory Commission
Mail Stop: O-16G4
Washington, DC 20555-0001
E-mail: OCAAMAIL.resource@nrc.gov

Dr. Richard E. Wardwell
Atomic Safety and Licensing Board Panel
Mail Stop - T-3 F23
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001
E-mail: Richard.Wardwell@nrc.gov

Office of the Secretary
Attn: Rulemaking and Adjudications Staff
Mail Stop: O-16G4
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001
E-mail: Hearing.Docket@nrc.gov

Dr. Kaye D. Lathrop
Atomic Safety and Licensing Board Panel
190 Cedar Lane E.
Ridgway, CO 81432
E-mail: Kaye.Lathrop@nrc.gov

Josh Kirstein, Esq.
Anne Siarnacki, Esq.
Atomic Safety and Licensing Board Panel
Mail Stop - T-3 F23
U. S, Nuclear Regulatory Commission
Washington, D.C. 20555-0001
E-mail: Josh.Kirstein@nrc.gov
E-mail: Anne.Siarnacki@nrc.gov

Atomic Safety and Licensing Board Panel
U.S. Nuclear Regulatory Commission
Mail Stop: T-3 F23
Washington, DC 20555-0001

Kathryn M. Sutton, Esq.
Paul M. Bessette, Esq.
Jonathan Rund, Esq.
Raphael Kuyler, Esq.
Morgan, Lewis & Bockius, LLP
1111 Pennsylvania Avenue, NW
Washington, D.C. 20004
E-mail: ksutton@morganlewis.com
E-mail: pbessette@morganlewis.com
E-mail: jrund@morganlewis.com
E-mail: rkuyler@morganlewis.com

Martin J. O'Neill, Esq.
Morgan, Lewis & Bockius, LLP
1000 Louisiana Street, Suite 4000
Houston, TX 77002
E-mail: martin.o'neill@morganlewis.com

Elise N. Zoli, Esq.
Goodwin Procter, LLP
Exchange Place
53 State Street
Boston, MA 02109
E-mail: ezoli@goodwinprocter.com

William C. Dennis, Esq.
Assistant General Counsel
Entergy Nuclear Operations, Inc.
440 Hamilton Avenue
White Plains, NY 10601
E-mail: wdennis@entergy.com

Melissa-Jean Rotini, Esq.
Assistant County Attorney
Office of Robert F. Meehan, Esq.
Westchester County Attorney
148 Martine Avenue, 6th Floor
White Plains, NY 10601
E-mail: MJR1@westchestergov.com

John J. Sipos, Esq.
Charlie Donaldson, Esq.
Assistants Attorney General
New York State Department of Law
Environmental Protection Bureau
The Capitol
Albany, NY 12224
E-mail: John.Sipos@ag.ny.gov

Janice A. Dean, Esq.
Assistant Attorney General,
Office of the Attorney General
of the State of New York
120 Broadway, 25th Floor
New York, NY 10271
E-mail: Janice.Dean@ag.ny.gov

Joan Leary Matthews, Esq.
Senior Attorney for Special Projects
New York State Department of
Environmental Conservation
Office of the General Counsel
625 Broadway, 14th Floor
Albany, NY 12233-1500
E-mail: jimatthe@gw.dec.state.ny.us

John Louis Parker, Esq.
Office of General Counsel, Region 3
New York State Department of
Environmental Conservation
21 South Putt Corners Road
New Paltz, NY 12561-1620
E-mail: jlparker@gw.dec.state.ny.us

Daniel E. O'Neill, Mayor
James Seirmarco, M.S.
Village of Buchanan
Municipal Building
Buchanan, NY 10511-1298
E-mail: vob@bestweb.net
E-mail: smurray@villageofbuchanan.com

Robert Snook, Esq.
Office of the Attorney General
State of Connecticut
55 Elm Street
P.O. Box 120
Hartford, CT 06141-0120
E-mail: robert.snook@ct.gov

Phillip Musegaas, Esq.
Deborah Brancato, Esq.
Riverkeeper, Inc.
20 Secor Road
Ossining, NY 10562
E-mail: phillip@riverkeeper.org
E-mail: dbrancato@riverkeeper.org

Manna Jo Greene
Karla Raimundi
Hudson River Sloop Clearwater, Inc.
724 Wolcott Avenue
Beacon, NY 12508
E-mail: mannajo@clearwater.org
E-mail: karla@clearwater.org

Daniel Riesel, Esq.
Thomas F. Wood, Esq.
Victoria Shiah, Esq.
Sive, Paget & Riesel, P.C.
460 Park Avenue
New York, NY 10022
E-mail: driese@sprlaw.com
E-mail: vshiah@sprlaw.com

Michael J. Delaney, Esq.
Director, Energy Regulatory Affairs
New York City Department of Environmental
Protection
59-17 Junction Boulevard
Flushing, NY 11373
E-mail: mdelaney@dep.nyc.gov

/Signed (electronically) by/

Beth N. Mizuno
Counsel for NRC Staff
U.S. Nuclear Regulatory Commission
Office of the General Counsel
Mail Stop – O-15D21
Washington, DC 20555
Telephone: (301) 415-3122
E-mail: beth.mizuno@nrc.gov