

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

Before Administrative Judges:

E. Roy Hawkens, Chairman  
Dr. Gary S. Arnold  
Dr. Sue H. Abreu

In the Matter of

ENTERGY NUCLEAR OPERATIONS, INC.

(Indian Point Nuclear Generating Station,  
Unit 2)

Docket No. 50-247-LA

ASLBP No. 15-942-06-LA-BD01

September 25, 2015

MEMORANDUM AND ORDER  
(Denying New York's Petition to Intervene)

Pending before this Licensing Board is the State of New York's petition to intervene,<sup>1</sup> which seeks to challenge a license amendment request (LAR) submitted by Entergy Nuclear Operations, Inc. (Entergy) for Indian Point Nuclear Generating Station, Unit 2.<sup>2</sup> For the reasons discussed below, we conclude that New York fails to proffer an admissible contention and, accordingly, we deny its petition.

I. BACKGROUND

In its petition to intervene, New York proffers two contentions challenging Entergy's request to amend its operating license for Indian Point Unit 2 to reduce permanently the frequency of the reactor containment Integrated Leak Rate Test (ILRT) from once every ten

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<sup>1</sup> See State of New York Petition to Intervene and Request for Hearing (May 18, 2015) [hereinafter New York Petition].

<sup>2</sup> See Letter from Lawrence Coyle, Site Vice President, Entergy Nuclear Northeast, to U.S. Nuclear Regulatory Commission, NL-14-128 (Dec. 9, 2014) (ADAMS Accession No. ML14353A015) [hereinafter LAR].

years to once every fifteen years. See New York Petition at 5, 20. To provide context for New York's contentions, we first discuss containment leakage tests and inspections as they relate to Indian Point Unit 2, and we then recount the procedural history of this case.

A. Containment Leakage Tests and Inspections as They Relate to Indian Point Unit 2

1. Containment Leakage Tests

The containment system is defined as “the principal barrier, after the reactor coolant pressure boundary, to prevent the release of quantities of radioactive material that would have a significant radiological effect on the health of the public.” 10 C.F.R. Part 50, app. J, Option B, § II. The Indian Point Unit 2 containment system is a steel-lined reinforced concrete vertical cylinder with a flat base mat and hemispherical dome that completely encloses the reactor and reactor coolant system. The containment pressure boundary consists of the steel-lined containment structure, containment access penetrations, and other process piping and electrical penetrations.<sup>3</sup>

Pursuant to 10 C.F.R. § 50.54(o), “[p]rimary reactor containments . . . shall be subject to the requirements set forth in [A]ppendix J to [10 C.F.R. Part 50].” Appendix J requires that licensees conduct periodic containment leakage tests to provide assurance that (1) leakage from the containment, including components that penetrate the containment, does not exceed the allowable leakage rates specified in the technical specifications; and (2) the containment will perform its design function following an accident up to and including the plant design basis accident. See 10 C.F.R. Part 50, app. J, Option B, § I; LAR, attach. 1 at 1.

The containment leakage tests required by Appendix J consist of (1) Type A tests, or ILRTs, that measure the containment’s total leakage rate;<sup>4</sup> (2) Type B pneumatic tests that

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<sup>3</sup> See Entergy’s Answer Opposing State of New York’s Petition to Intervene and Request for Hearing at 6 (June 12, 2015) [hereinafter Entergy Answer]; see also New York Petition at 12-13.

<sup>4</sup> The Type A test, or ILRT, measures the total leakage rate from all potential leakage paths, including containment liner welds, valves, fittings, and components that penetrate the containment. See 10 C.F.R. Part 50, app. J, Option A, § II. This test involves pressurizing the

detect and measure local leakage rates across pressure-retaining, leakage-limiting boundaries (other than valves); and (3) Type C pneumatic tests that measure containment isolation valve leakage rates. See 10 C.F.R. Part 50, app. J, Option B, §§ III.A and III.B. Type B and C tests assure that containment penetrations are essentially leak tight, while Type A tests measure the containment system's overall leakage rate, thereby enabling a licensee to verify the leakage integrity of the containment liner. See LAR, attach. 1 at 1.<sup>5</sup>

Prior to 1995, licensees were required to perform three Type A tests in every ten-year period.<sup>6</sup> In 1995, however, the NRC amended Appendix J to provide a performance-based option, i.e., Option B, for containment leakage testing requirements. See Final Rule, 60 Fed. Reg. at 49,495. This performance-based option allows licensees with a satisfactory Type A test performance history (i.e., two consecutive, successful Type A tests) to reduce the test frequency of Type A testing from three tests in ten years to one test in ten years. See LAR, attach. 1 at 2. This reduction in the testing frequency permitted by Option B was based on risk assessments conducted by the NRC and EPRI that showed the "risk increase associated with extending the ILRT surveillance interval was very small." 2008 Final Safety Evaluation at 2. In this regard, the

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containment atmosphere to a specified test pressure for a sufficient duration to determine what the containment leakage would be under design basis accident conditions. The acceptance criteria for Type A tests embodied in the technical specification leakage limits are established to ensure that, in the event of a design basis accident, the dose received by a member of the general public will not exceed the limits in 10 C.F.R. Part 100. See Entergy Answer at 8 n.32; Letter from Patrick D. Milano, NRC Office of Nuclear Reactor Regulation (NRR), to Michael R. Kansler, Entergy, encl. 2, at 1 (Safety Evaluation by [NRR] Related to Amendment No. 232 to Facility Operating License No. DPR-26 Entergy Nuclear Operations, Inc. Indian Point Nuclear Generating Unit No. 2 (Aug. 5, 2002)) (ADAMS Accession No. ML021860178) [hereinafter 2002 Safety Evaluation]; see also infra note 9 (discussing leakage rate acceptance criterion).

<sup>5</sup> See also Final Safety Evaluation by [NRR], Nuclear Energy Institute (NEI) Topical Report (TR) 94-01, Rev. 2, "Industry Guideline for Implementing Performance-Based Option of 10 C.F.R. Part 50, Appendix J" and Electric Power Research Institute (EPRI) Report No. 1009325, Rev. 2, Aug. 2007, "Risk Impact Assessment of Extended Integrated Leak Rate Testing Intervals," at 1 (June 25, 2008) (ADAMS Accession No. ML081140105) [hereinafter 2008 Final Safety Evaluation].

<sup>6</sup> See Final Rule, Primary Reactor Containment Leakage Testing for Water-Cooled Power Reactors, 60 Fed. Reg. 49,495, 49,499 (Sept. 26, 1995) [hereinafter Final Rule].

NRC Staff found that Type B and C tests can detect over 97 percent of containment leakages, and “[o]f the 97 percent, virtually all leakages are identified by [Type C testing] of containment isolation valves.” Final Rule, 60 Fed. Reg. at 49,499.<sup>7</sup>

In August 1996, Entergy requested to amend its license to implement the performance-based testing schedule in Option B for Indian Point Unit 2. See LAR, attach. 1 at 2. In April 1997, the NRC approved Entergy’s request, thereby authorizing Entergy to reduce the frequency of Type A testing for Unit 2 from three tests in ten years to one test in ten years. See id.; see also 2002 Safety Evaluation at 4.

In August 2002, the NRC approved Entergy’s 2001 license amendment request to extend the Type A testing interval for Indian Point Unit 2 on a one-time basis from ten years to fifteen years. See 2002 Safety Evaluation at 13-14; LAR, attach. 1 at 2.<sup>8</sup>

Consistent with the August 2002 license amendment, Entergy conducted its most recent Type A test for Unit 2 in 2006. See LAR, attach. 1 at 5. Entergy conducted previous Type A tests in 1991, 1987, 1984, and 1979. See id. at 5-6. All Type A test results have been below the containment leakage rate acceptance limit of 1.0 L<sub>a</sub>. See id.<sup>9</sup>

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<sup>7</sup> See also 2002 Safety Evaluation at 3; NRC Staff’s Answer to “State of New York Petition to Intervene and Request for Hearing” at 10 (June 12, 2015) [hereinafter NRC Staff Answer].

<sup>8</sup> Underlying this extension was a project begun by NEI in 2001 to justify further reduction of the Type A testing frequency from one test in ten years to as low as one test in twenty years based on performance history and risk insights. See 2008 Final Safety Evaluation at 2. Pursuant to NEI’s direction, EPRI developed interim guidance for creating uniform risk assessments to support a one-time extension of the Type A test from a ten-year to a fifteen-year interval. NEI disseminated the interim guidance to licensees in November 2001, and as of 2008, this guidance had been used as the technical basis to support a one-time Type A testing interval extension to fifteen years at about seventy-five operating reactors. See id.

<sup>9</sup> “The [overall integrated] leakage rate must not exceed the allowable leakage rate (L<sub>a</sub>) with margin, as specified in the Technical Specifications.” 10 C.F.R. Part 50, app. J, Option B, § III.A. The relevant technical specification for Indian Point Unit 2 states that the “containment leakage rate acceptance criterion is 1.0 L<sub>a</sub>.” See NRC Staff Answer at 16 n.69; see also Entergy Answer at 27-28; 2002 Safety Evaluation at 4. The leakage rate acceptance limit, L<sub>a</sub>, is based on minimizing leakage that would occur at the calculated peak containment internal pressure related to the design basis loss-of-coolant accident. See 10 C.F.R. Part 50, app. J, Option B, § II.

Thereafter, in a June 2008 Final Safety Evaluation, see supra note 5, the NRC Staff accepted the methodology in NEI 94-01, Rev. 2, and EPRI TR-1009325, Rev. 2, for referencing by licensees who sought to amend their licenses to extend permanently the Type A testing interval to fifteen years, provided that the prescribed conditions set forth in the Final Safety Evaluation are satisfied. See 2008 Final Safety Evaluation at 19-20. As the Staff concluded, the “testing methodology . . . and the modified testing frequencies . . . serve[] to ensure continued leakage integrity of the containment structure. Type B and Type C testing ensures that individual penetrations are essentially leak tight. . . . [and] aggregate Type B and Type C leakage rates support the leakage tightness of primary containment by minimizing potential leakage paths.” Id. at 20.<sup>10</sup>

## 2. Containment Inspections

In addition to establishing containment leak testing requirements, Appendix J requires periodic visual inspections of the accessible interior and exterior surfaces of the containment system to identify structural deterioration that may affect containment integrity. See 10 C.F.R. Part 50, app. J, Option B, § III.A; LAR, attach. 1 at 10. Periodic inspections of interior and exterior containment surfaces at Indian Point Unit 2 are also required by the Containment Inservice Inspection Plan to implement the requirements of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code). See LAR, attach. 1 at 10.<sup>11</sup>

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<sup>10</sup> See also 2008 Final Safety Evaluation at 10 (“[T]he impact of [permanently increasing the Type A testing frequency to fifteen years] on the reliability/availability of the containment barrier will be small.”).

<sup>11</sup> Pursuant 10 C.F.R. § 50.55a(g)(4), entitled “Inservice inspection requirements for operating plants,” Indian Point Unit 2 must comply with ASME Boiler Pressure Vessel Code Section XI, including Subsection IWE (metal containment inspections) and Subsection IWL (concrete containment inspections). The ASME Code requires visual inspections to identify possible damage or degradation, to evaluate whether component function has been impaired, and to effect appropriate repair or replacement activity. See NRC Staff Answer at 14 n.58.

As required by the inspection program for metal containments, the accessible surface area of the Indian Point Unit 2 liner is examined about every three and one-third years. See LAR, attach. 1 at 10. Pursuant to the inspection program for concrete containments, the accessible surface area of the Unit 2 concrete containment is examined about every five years. See id. These inspections “play an important role in ensuring the leak tightness of containments between the [Type A tests].” 2008 Final Safety Evaluation at 9.

Inspection records for Indian Point Unit 2 indicate that all observed corrosion and degradation were either remediated or deemed not to impair the ability of the containment to perform its safety function. See LAR, attach. 1 at 11-13.

B. Procedural History

On December 9, 2014, Entergy submitted a request to the NRC to amend the operating license for Indian Point Unit 2. See LAR at 1. Entergy seeks to revise Unit 2’s Technical Specification 5.5.14 to reduce the frequency for conducting the Type A test, or ILRT, of the primary reactor containment system from once every ten years to once every fifteen years on a permanent basis. See id., attach. 1 at 1. Entergy conducted the last Type A test in 2006; accordingly, the LAR, if granted, will postpone the next Type A test from 2016 to 2021. See id., attach. 1 at 3. Notably, Entergy seeks no change in the frequency of the Type B and C leakage tests, which will continue to be performed at least every five years. See id., attach. 1 at 3. Nor does it seek to change the frequency of containment visual inspections, which will continue to be conducted on the steel containment about every three and one-third years, and on the concrete containment every five years. See id., attach. 1 at 10.<sup>12</sup>

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<sup>12</sup> See also Transcript, “Entergy Nuclear Operations, Inc. Indian Point Nuclear Generating Station Unit 2” at 82 (July 30, 2015) [hereinafter Tr.].

Notice of the LAR and the attendant opportunity to request a hearing to contest the proposed license amendment were published in the Federal Register on March 17, 2015.<sup>13</sup> The Notice also announced the NRC Staff's proposed determination that the LAR involves a no significant hazards consideration under 10 C.F.R. § 50.92(c). See Notice, 80 Fed. Reg. at 13,906.<sup>14</sup>

On May 18, 2015, New York timely filed a petition to intervene, proffering two contentions in support of its claim that Entergy's LAR should be denied. First, New York proffers a safety contention, NYS-1, asserting that reducing the frequency of Type A testing from once in ten years to once in fifteen years poses a significant health and safety hazard to the public. See New York Petition at 5-20. Second, New York proffers an environmental contention, asserting that Entergy and the NRC Staff failed to perform environmental reviews for

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<sup>13</sup> See Biweekly Notice; Applications and Amendments to Facility Operating Licenses and Combined Licenses Involving No Significant Hazards Considerations, 80 Fed. Reg. 13,902, 13,905-06 (Mar. 17, 2015) [hereinafter Notice].

<sup>14</sup> The "no significant hazards consideration" determination mentioned in the Notice is a determination that, if reached by the NRC, permits it to make an authorized license amendment effective immediately pursuant to 10 C.F.R. § 50.58(b)(5), rather than awaiting the outcome of an adjudicatory challenge. As explained by the Commission, it "is a procedural device to determine when, not whether, petitioners' right to a hearing under the Atomic Energy Act will occur." Pac. Gas and Electric Co. (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-86-12, 24 NRC 1, 6 n.3 (1986); see also 10 C.F.R. § 50.91 (discussing the process for making the no significant hazards consideration determination). A proposed amendment is eligible for a no significant hazards consideration determination if the NRC concludes the amendment would not:

- (1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or
- (2) Create the possibility of a new or different kind of accident from any accident previously evaluated; or
- (3) Involve a significant reduction in a margin of safety.

10 C.F.R. § 50.92(c).

the LAR that are required by the National Environmental Policy Act (NEPA) and NRC regulations. See id. at 20-23.

On June 12, 2015, Entergy and the NRC Staff filed answers arguing that New York's petition should be denied for failure to proffer an admissible contention. See Entergy Answer at 14-38; NRC Staff Answer at 12-27. On June 19, 2015, New York filed a reply.<sup>15</sup>

On July 30, 2015, this Board held oral argument regarding the admissibility of New York's contentions.<sup>16</sup>

## II. ANALYSIS

Before a Licensing Board may grant a timely filed petition to intervene, it must conclude that the petitioner has (1) established standing; and (2) proffered at least one admissible contention. See 10 C.F.R. § 2.309(a). New York satisfies the first requirement. Pursuant to NRC regulation, where a State seeks to participate as a party in a proceeding pertaining to a "utilization facility . . . located within [its boundaries] . . . no further demonstration of standing is required." 10 C.F.R. § 2.309(h)(2). Here, New York seeks to participate in a proceeding involving a nuclear generating unit that is located within the State's boundaries (i.e., in Buchanan, New York). "[N]o further demonstration of standing is required." Id.<sup>17</sup>

As discussed below, however, we conclude that neither of New York's two proffered contentions satisfies the admissibility standard in 10 C.F.R. § 2.309(f)(1). We therefore deny New York's petition to intervene.

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<sup>15</sup> See State of New York Reply in Support of Petition to Intervene and Request for Hearing (June 19, 2015) [hereinafter New York Reply].

<sup>16</sup> See Licensing Board Notice and Order (Scheduling and Providing Instructions for Oral Argument) (July 6, 2015) (unpublished); Tr. at 14-145.

<sup>17</sup> Neither Entergy nor the NRC Staff contest New York's standing. See Entergy Answer at 1-2; NRC Staff Answer at 4.



A. Legal Standards for Contention Admissibility

To be admissible, a contention must satisfy the six-factor admissibility test in

10 C.F.R. § 2.309(f)(1), which requires that a petitioner:

- (i) Provide a specific statement of the issue of law or fact to be raised or controverted . . . ;
- (ii) Provide a brief explanation of the basis for the contention;
- (iii) Demonstrate that the issue raised in the contention is within the scope of the proceeding;
- (iv) Demonstrate that the issue raised in the contention is material to the findings the NRC must make to support the action that is involved in the proceeding;
- (v) Provide a concise statement of the alleged facts or expert opinions which support the requestor's/petitioner's position on the issue and on which the petitioner intends to rely at hearing, together with references to the specific sources and documents on which the requestor/petitioner intends to rely to support its position on the issue; [and]
- (vi) . . . [P]rovide sufficient information to show that a genuine dispute exists with the applicant/licensee on a material issue of law or fact. This information must include references to specific portions of the application (including the applicant's environmental report and safety report) that the petitioner disputes and the supporting reasons for each dispute, or, if the petitioner believes that the application fails to contain information on a relevant matter as required by law, the identification of each failure and the supporting reasons for the petitioner's belief.

The Commission has stressed that the contention admissibility standard is "strict by design."<sup>18</sup> Failure to comply with any of the requirements in section 2.309(f)(1) renders a contention inadmissible.<sup>19</sup>

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<sup>18</sup> Dominion Nuclear Conn., Inc. (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 358 (2001); accord USEC, Inc. (Am. Centrifuge Plant), CLI-06-09, 63 NRC 433, 437 (2006).

<sup>19</sup> See Private Fuel Storage, LLC (Indep. Spent Fuel Storage Installation), CLI-99-10, 49 NRC 318, 325 (1999).

B. Contention NYS-1 Is Not Admissible

1. New York's Position on Contention NYS-1

Contention NYS-1 states as follows:

Entergy's request to amend the Indian Point Unit 2 operating license and technical specification should be denied because it involves a significant safety and environmental hazard, fails to demonstrate that it complies with 10 C.F.R. §§ 50.40 and 50.92 or 10 C.F.R. 50, Appendix J, and fails to demonstrate that it will provide reasonable assurance of adequate protection for the public health and safety as required by Section 182(a) of the Atomic Energy Act (42 U.S.C. § 2232[a]) if the proposed amendment to the operating license is approved.

New York Petition at 5.

In support of admitting Contention NYS-1, New York advances the following arguments.

First, New York alleges that granting the LAR will threaten public safety in light of (1) the "specific history of structural and corrosive damage" to the containment; and (2) the containment's "recent inspections that revealed significant corrosion and other wear." New York Petition at 7-8. Second, New York asserts that granting the LAR will jeopardize public safety because recent Type A leak tests indicate that the containment liner is trending toward exceeding the leakage acceptance criteria by 2016, i.e., five years before the next Type A test would be performed if the LAR were granted. See id. at 8, 16-17. Third, the State argues that granting the LAR "poses a significant hazards consideration under 10 C.F.R. § 50.92(c)." Id. at 8. Finally, the State argues that the LAR is defective because it (1) improperly fails to address new, relevant seismic data; (2) improperly relies on a risk assessment that was based on the Surry reactor in rural Virginia, which has a population that is considerably less than the densely populated urban area where Indian Point Unit 2 is located; and (3) improperly relies on an allegedly flawed 2009 Severe Accident Mitigation Alternatives (SAMA) analysis. See id. at 15, 19-20.

2. Board's Ruling on Contention NYS-1

As we explain below, none of the arguments advanced by New York in support of Contention NYS-1 renders it admissible.

First, according to New York, Entergy's LAR fails to comply with Option B in 10 C.F.R. Appendix J because it "fail[s] to consider the plant-specific history of the . . . containment liner," which New York describes as a "history of structural and corrosive damage" that is reflected in recent inspections. New York Petition at 6, 7-8.<sup>20</sup> This argument is factually and legally flawed. As a factual matter, New York errs in asserting that the LAR fails to address the plant-specific condition of the containment liner.<sup>21</sup> As a legal matter, New York's argument is an improper attempt to graft a "historical event" criterion onto the "performance criteria" specified in Appendix J, Option B. See 10 C.F.R. Part 50, app. J, Option B, §§ II and III; see also Tr. at 128. Such an argument not only is barred by 10 C.F.R. § 2.335(a),<sup>22</sup> it ignores the fact that the Commission was aware of containment degradation issues when it promulgated performance-based testing and subsequent regulations on visual inspections,<sup>23</sup> and despite such awareness, it placed no "historical event" restriction on reactors electing to comply with Appendix J through

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<sup>20</sup> Regarding the containment's history, the State points to (1) a 1968 incident involving plate buckling, see New York Petition at 13; (2) a 1973 incident involving the breakage of a steam generator feedwater line, resulting in containment damage, see id. at 13-14; and (3) a 1980 containment flooding incident. See id. at 15. Regarding the results of recent inspections, New York states that "visual inspections of the . . . containment liner in 2008, 2012, and 2014 revealed numerous other signs of degradation, including corrosion, buckling of loose plates, and leaking water." Id. at 8.

<sup>21</sup> See LAR, attach. 1 at 11-13 (stating that inspection records indicate that all observed corrosion or degradation either have been remediated or were deemed not to reduce the structural capacity of the containment to perform its safety function); Entergy Answer at 25.

<sup>22</sup> Section 2.335(a) provides that, absent a waiver (which New York has not sought), "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 [10 C.F.R. Part 2]." 10 C.F.R. § 2.335(a). This rule applies, as well, to a contention that seeks to impose a requirement beyond those imposed by a Commission regulation. See, e.g., NextEra Energy Seabrook, LLC (Seabrook Station, Unit 1), CLI-12-05, 75 NRC 301, 315 & n.88 (2012).

<sup>23</sup> See Codes and Standards for Nuclear Power Plants; Subsection IWE and Subsection IWL, 61 Fed. Reg. 41,303, 41,303 (Aug. 8, 1996).

performance-based testing. See Tr. at 128-30.<sup>24</sup> Thus, to the extent that New York grounds Contention NYS-1 on this argument, it must be rejected for (1) failing to raise a genuine dispute on a material issue with the LAR, see 10 C.F.R. § 2.309(f)(1)(vi); and (2) raising an impermissible challenge to a Commission regulation and, thus, falling outside the scope of the proceeding. See id. § 2.309(f)(1)(iii).

Contention NYS-1 fares no better under New York's related argument that, in light of the corrosion in the containment liner caused by the history of damaging events, Entergy's LAR threatens public health and safety in violation of the Atomic Energy Act and Commission regulations. See New York Petition at 8 (citing 42 U.S.C. § 2232(a) and 10 C.F.R. § 50.40). The documents on which New York relies actually contradict its assertion. Specifically, they indicate that (1) containment damage at Unit 2 has been remediated; (2) subsequent testing and inspection have proven acceptable; and (3) visual observations confirm no worsening of conditions.<sup>25</sup> This aspect of Contention NYS-1 is thus inadmissible for failure to show that a genuine dispute exists with the LAR. See 10 C.F.R. § 2.309(f)(1)(vi).<sup>26</sup>

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<sup>24</sup> See also 10 C.F.R. Part 50, app. J, Option B, § III.A ("A Type A test [under Option B] must be conducted . . . at a periodic interval based on the historical performance of the overall containment system . . ."); id. ("The test results must be compared with previous results to examine the performance history of the overall containment system . . .").

<sup>25</sup> See, e.g., "Report on the Containment Building Liner Plate Buckle in the Vicinity of the Fuel Transfer Canal" Indian Point Generating Station Unit No. 2, at 2, 8 (Jan. 1968) (ADAMS Accession No. ML093521587) ("[I]t is concluded that the integrity of the liner has not been violated."); Letter from R.R. Maccary, Assistant Director for Engineering, to Donald J. Skovholt, Assistant Director for Operating Reactors at 1 (April 15, 1974) (ADAMS Accession No. ML093630690) [hereinafter AEC Recommendation] ("The applicant's conclusion is that the damage to the liner has not impaired its integrity and that it can perform its function with an adequate margin of safety. We concur with this conclusion."); 2002 Safety Evaluation at 8-9 (discussing the 1980 incident and concluding "that the structural integrity of the containment is acceptable because the remaining liner thickness is sufficient to withstand the loading associated with design-basis accident conditions"); LAR, attach. 1 at 11-12 (stating that the degradation observed during inspections in 2008 and 2012 "were a repeat of previous inspections and were minor with no change and therefore acceptable."); see also Entergy Answer at 25.

<sup>26</sup> New York attempts to distinguish Indian Point from other plants by pointing to a 1974 document in which the AEC Staff recommended increasing the frequency of leak-rate testing at

New York also argues that granting the LAR will jeopardize public safety because recent Type A tests reveal that leakage will likely exceed the acceptance criterion of 0.75  $L_a$  by 2016, or five years before the next Type A test would be performed if the LAR were granted. See New York Petition at 8, 16-17. This argument reflects a fundamental misunderstanding of the acceptance criteria. As discussed supra note 9, the regulatory limit for Type A leakage – which is also referred to as the “as-found acceptance criterion” – is 1.0  $L_a$ . See 2002 Safety Evaluation at 4. Restated, Type A leakage at Unit 2 “must not exceed” 1.0  $L_a$ . 10 C.F.R. Part 50, app. J, Option B, § III.A. In contrast, the 0.75  $L_a$  criterion cited by New York is referred to as the “as-left criterion,” see 2002 Safety Evaluation at 4, and there is no regulatory bar to exceeding that criterion during plant operations; rather, it is a criterion that must be satisfied prior to a plant restart.<sup>27</sup> The “as-left criterion” is lower than the regulatory limit applicable to plant operations to “assure[] that there is margin for potential degradation that could increase the containment leakage rate before the next [Type A test] is performed.” RAI Response at 5. In short, to the extent that Contention NYS-1 claims that Entergy’s LAR must be rejected because the leakage will exceed 0.75  $L_a$  by 2016, it is inadmissible for failing to raise a material issue. See 10 C.F.R. § 2.309(f)(1)(iv).<sup>28</sup>

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Unit 2 due to the plant’s history of containment damage. See New York Petition at 7 (citing AEC Recommendation, attach. at 4). New York overlooks that this hoary recommendation was never adopted by the AEC and was superseded by subsequent Commission assessments in 1997 and 2002 that authorized reducing the frequency of Type A testing at Unit 2. See supra Part I.A.1.

<sup>27</sup> See Entergy Answer, attach. 1 at 5 (Letter from Lawrence Coyle, Entergy to NRC Document Control Desk, NL-15-068, attach. 1 at 5 (June 8, 2015) (Response to Request for Additional Information [RAI] Regarding License Amendment to Permanently Extend the Frequency of the Containment Integrated Leak Rate Test [hereinafter RAI Response]; Tr. at 43, 47.

<sup>28</sup> Notably, New York does not claim, nor does the LAR indicate, that Type A leakage would exceed the regulatory limit of 1.0  $L_a$  during plant operation. See RAI Response at 5. At oral argument, counsel for New York repeatedly asserted that the State “believes” that a reactor should not be permitted to operate with a containment leakage rate of 0.75  $L_a$ . See Tr. at 47, 48, 137. New York’s “belief,” however, is not supported by alleged facts or expert opinion as required by 10 C.F.R. § 2.309(f)(1)(v), and, in any event, such an argument constitutes an impermissible challenge to a regulation. See supra note 22.

New York nevertheless attempts to ground Contention NYS-1 on a concern that recent Type A tests reveal a dangerous trend of containment liner degradation. See New York Petition at 17. The trend in recent integrated leak rate values was initially noted by the NRC Staff as the subject of an RAI to Entergy. See Entergy Answer at 26-27. Entergy responded that the integrated leak rate results do not necessarily reflect containment liner damage. Entergy explained that “[t]he ‘as found’ ILRT is the leakage from [1] the containment and [2] the Type B and C penetrations tested [during the Type A test] as well as [3] the leakage through the Type B and C penetrations that are not tested as part of the ILRT [i.e., those penetrations that are isolated].” RAI Response at 5. The ILRT leakage attributable to Type B and C penetrations, stated Entergy, “can vary from ILRT to ILRT depending on the systems that are vented, drained, and open to atmosphere for the ILRT.” Id.<sup>29</sup> Significantly, New York makes no effort to rebut Entergy’s explanation.

In any event, and dispositively, even if the apparent trend in Type A tests were extrapolated, it is undisputed that the leakage would not exceed the regulatory limit of 1.0 L<sub>a</sub> during the fifteen-year period between consecutive Type A tests. See RAI Response at 5; supra note 28. New York’s contention is therefore inadmissible pursuant to 10 C.F.R. § 2.309(f)(1)(v) and (vi) because it lacks adequate support and fails to raise a genuine dispute on a material issue with the LAR.

New York also endeavors to support Contention NYS-1 by arguing that the LAR “poses a significant hazard[s] consideration under 10 C.F.R. § 50.92(c).” New York Petition at 8; see supra note 14 (discussing regulatory underpinning of Staff’s “no significant hazards consideration” determination). This argument is not litigable. Pursuant to 10 C.F.R.

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<sup>29</sup> See also Tr. at 96-97 (counsel for Entergy discusses factors that affect the integrated leak rate value, which include the number of Type B and C penetrations that are isolated, as well as the length of the test); Tr. at 120-21 (counsel for NRC Staff states that “when you subtract out the Type C leakage from the Type A test, you get a much [lower as-found Type A test result] than New York is asking you to believe exists for containment liner leakage”).

§ 50.58(b)(6), apart from discretionary review by the Commission, the NRC Staff's no significant hazards consideration determination under section 50.92(c) may not be contested.<sup>30</sup>

New York's remaining three arguments in support of Contention NYS-1 are also unavailing. First, citing revised seismic studies performed in response to the NRC's post-Fukushima recommendation, New York asserts that "[r]ecent analysis of [Unit 2] reveals that it may be subjected to seismic events of greater intensity more frequently than thought" and that the LAR "fails to adequately consider [this] risk." New York Petition at 10, 15-16. But simply referencing this study without explaining the information's significance relative to the potential containment leakage monitored by the testing at issue does not establish its materiality, as is required by 10 C.F.R. § 2.309(f)(1)(iv).<sup>31</sup> And by failing to explain how this information controverts the portion of the LAR that reviewed seismic impacts, see LAR, attach. 3 at 5-27, New York fails to establish a genuine dispute of fact with the LAR, as is required by 10 C.F.R. § 2.309(f)(1)(vi).

Second, New York argues that the LAR improperly relies on a risk assessment that was based on the Surry reactor in rural Virginia, which has a population that is considerably less

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<sup>30</sup> Section 50.58(b)(6) states: "No petition or other request for review of or hearing on the staff's significant hazards consideration determination will be entertained by the Commission. The staff's determination is final, subject only to the Commission's discretion, on its own initiative, to review the determination." 10 C.F.R. § 50.58(b)(6); see also Carolina Power & Light Co. (Shearon Harris Nuclear Power Plant), CLI-01-07, 53 NRC 113, 118 (2001).

As discussed supra note 14, consistent with section 50.58(b)(5), the sole effect of a no significant hazards consideration determination is to permit the Staff to make an authorized license amendment effective immediately, despite the pendency of an adjudication. Issues regarding when an authorized license amendment should become effective are irrelevant to this proceeding, which involves a challenge to the merits of Entergy's LAR. Hence, the adequacy of the significant hazards consideration determination – in addition to being immune from challenge pursuant to section 50.58(b)(6) – is not material to, or within the scope of, this proceeding.

<sup>31</sup> See USEC Inc. (Am. Centrifuge Plant), CLI-06-10, 63 NRC 451, 472 (2006) ("[A]n expert opinion [or otherwise] that merely states a conclusion (e.g., the application is 'deficient,' 'inadequate,' or 'wrong') without providing a reasoned basis or explanation for that conclusion is inadequate . . .").

than the densely populated urban area where Indian Point Unit 2 is located. See New York Petition at 19. Contrary to New York's argument, however, Entergy's risk assessment explicitly accounts for Indian Point's site-specific population. See LAR, attach. 3 at 4-7 to 4-12, 5-6 to 5-13; Tr. at 91. And again, by not controverting this information, New York fails to establish a genuine dispute of fact with the LAR, as is required by 10 C.F.R. § 2.309(f)(1)(vi).

Finally, New York's assertion that the LAR improperly relies on a defective SAMA analysis is unavailing. New York claims that the SAMA analysis (1) "does not take into account the value of decontamination cost of offsite properties with iconic value"; (2) "artificially and improperly limits its scope to land and population only within 50 miles of the site"; and (3) "relied on [an outdated] dollar per person rem value of \$2,000." New York Petition at 20. Yet, New York fails to provide expert opinions or adequate facts in support of these alleged deficiencies, as required by 10 C.F.R. § 2.309(f)(1)(v). Nor does New York show how its claims relate to the assumptions and methodologies in the SAMA, much less create a genuine dispute on a material issue of fact or law with the LAR, as required by 10 C.F.R. § 2.309(f)(1)(vi).

Contention NYS-1 is therefore not admissible.<sup>32</sup>

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<sup>32</sup> New York also asserts that "Entergy's desire to reduce costs and maximize revenues . . . does not justify rolling back this important safety-related test." New York Petition at 10. This assertion, although correct, is quite beside the point, because Entergy does not seek to justify its LAR on economic grounds. See Entergy Answer at 35-36; NRC Staff Answer at 22. Rather, Entergy's risk assessment concludes that the risk of reducing the Type A test frequency to fifteen years is no more than "small" in accordance with regulatory guidelines. See LAR, attach. 1 at 15-16; see also id., attach. 3 at 7-1 to 7-2; Regulatory Guide 1.174, An Approach for Using Probabilistic Risk Assessment in Risk-Informed Decisions on Plant-Specific Changes to the Licensing Basis at 17 (Rev. 2 May 2011) (ADAMS Accession No. ML100910006). Critically, the risk assessment accounts for the very dangers that New York asserts render Unit 2 ineligible for the LAR, including "the likelihood and risk implications of corrosion-induced leakage of the steel liners occurring and going undetected during the extended test interval . . ." LAR, attach. 3 at 4-15. The impact of aging, concealed corrosion, and the effectiveness of visual inspections are all considered in the risk assessment. See id. New York fails to controvert this portion of the application.



C. Contention NYS-2 Is Not Admissible

1. New York's Position on Contention NYS-2

Contention NYS-2 states as follows:

Entergy's request to amend the Indian Point Unit 2 operating license and technical specification should be denied because Entergy has not submitted an Environmental Report as required by 10 C.F.R. § 51.53 and it has not undergone the required NRC Staff environmental review pursuant to 10 C.F.R. § 51.101 and, despite Entergy's claim to the contrary, the proposed amendment is not categorically exempt from that review under 10 C.F.R. § 51.22(c)(9).

New York Petition at 20.

In Contention NYS-2, New York argues that the LAR is not categorically exempt from environmental review pursuant to 10 C.F.R. § 51.22(c)(9), because it "involves a significant hazards consideration" that excludes it from categorical exemption pursuant to the criteria in section 51.22(c)(9)(i). See New York Petition at 21.<sup>33</sup> The "significant hazards consideration" associated with reducing the frequency of Type A testing, asserts New York, involves a significant increase in the consequences of an accident previously evaluated as well as a significant reduction in a margin of safety. See id. at 21-22.

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<sup>33</sup> Section 51.22 identifies categories of actions that are exempt from NEPA review because the NRC has made a generic finding that the "actions do[] not individually or cumulatively have a significant effect on the human environment." 10 C.F.R. § 51.22(a). Section 51.22(c)(9), in turn, establishes a categorical exemption for the issuance of a reactor license amendment that, like Entergy's LAR, changes a surveillance requirement, provided that:

- (i) The amendment or exemption involves no significant hazards consideration;
- (ii) There is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite; and
- (iii) There is no significant increase in individual or cumulative occupational radiation exposure.

Id. § 51.22(c)(9).

2. Board's Ruling on Contention NYS-2

As we discuss below, Contention NYS-2 is not admissible because it constitutes an impermissible challenge to the NRC Staff's no significant hazards consideration determination. New York attempts to salvage Contention NYS-2 by advancing a new argument in its reply brief; however, we reject the new argument as untimely and unavailing.

Although the categorical exemption in section 51.22(c)(9) has several requirements that must be satisfied, see supra note 33, New York grounds Contention NYS-2 solely on the argument that Entergy's LAR involves a "significant hazards consideration" in derogation of 10 C.F.R. § 51.22(c)(9)(i). See New York Petition at 21-22. As discussed supra note 30, however, the NRC Staff's no significant hazards consideration determination may not be contested. See 10 C.F.R. § 50.58(b)(6). Contention NYS-2 is therefore not admissible.

In its reply brief, New York claims that it is not contesting the NRC Staff's no significant hazards consideration determination, but instead is challenging "whether the Commission should ultimately make such a final determination." New York Reply at 19. This argument ignores the broad and unqualified rule of unreviewability established by section 50.58(b)(6), which (1) authorizes the NRC to make no significant hazards consideration determinations; and (2) declares that such determinations are immune from "petition or other request for review . . . or hearing." 10 C.F.R. § 50.58(b)(6). Accepting New York's argument would require us to carve an exception into section 50.58(b)(6) that, ultimately, would swallow its rule of unreviewability. This we decline to do.

New York further argues that, as a policy matter, if the "no significant hazards consideration" determination is unreviewable, then the categorical exclusion of 10 C.F.R. § 51.22(c)(9) "becomes an unassailable substantive conclusion that Industry and the NRC Staff can employ to avoid environmental review of proposed actions." New York Reply at 20. This argument is ineffectual. As the NRC Staff explains in its answer, "the Council on Environmental Quality's regulations enacting NEPA explicitly recognize that a categorical exclusion is a generic

finding that a category of actions do not individually or cumulatively have a significant effect on the human environment.” NRC Staff Answer at 26 (citing 40 C.F.R. § 1508.4); accord Brodsky v. NRC, 704 F.3d 113, 119-20 (2d Cir. 2013). Section 51.22 embodies the NRC’s generic finding, adopted in the context of a rulemaking proceeding, that the categorical exclusions listed therein involve actions that “do[] not individually or cumulatively have a significant effect on the human environment.” 10 C.F.R. § 51.22(a). New York thus errs in asserting that a categorical exclusion is a device for evading environmental review of proposed actions.

Nor is there merit to New York’s assertion that the unreviewability of the NRC Staff’s “no significant hazards consideration” determination has the impermissible effect of rendering the categorical exclusion determination of section 51.22(c)(9) “unassailable.” See New York Reply at 20. A petitioner with supporting facts may seek review of a section 51.22(c)(9) determination by at least two methods: (1) challenging either of the two additional findings made under section 51.22(c)(9)(ii) or (iii) that are necessary for a categorical exclusion determination; and (2) if the requirements of section 51.22(c)(9) are satisfied, by showing the existence of “special circumstances” pursuant to 10 C.F.R. § 51.22(b) that would justify excepting a proposed license amendment from the categorical exclusion of section 51.22(c). New York did not attempt the former, and, as we now show, although it attempted the latter, its attempt was untimely and, therefore, is unavailing.

New York argued for the first time in its reply brief that it seeks to challenge the NRC Staff’s “no significant hazards consideration” determination by invoking the exception in 10 C.F.R. § 51.22(b),<sup>34</sup> which “bestows upon any interested person the right to challenge the use

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<sup>34</sup> Section 51.22(b) provides, in pertinent part, that an environmental review need not be performed for any action that falls within the list of categorical exclusions, “[e]xcept in special circumstances, as determined by the Commission upon its own initiative or upon request of any interested person.” 10 C.F.R. § 51.22(b).

of a categorical exclusion by presenting special circumstances.” New York Reply at 19 (quoting Pa’ina Haw., LLC (Materials License Application), LBP-06-04, 63 NRC 99, 109 n.38 (2006)).

Assuming (without deciding) that the “special circumstances” exception in 10 C.F.R. § 51.22(b) allows a petitioner to challenge a “no significant hazards consideration” determination, it is well established in NRC proceedings that a reply brief cannot introduce new issues or expand the scope of arguments advanced in the original petition; rather, a reply brief must focus on the actual or logical arguments presented in the original petition or raised in answers to it.<sup>35</sup> This rule promotes adjudicative efficiency and also ensures fairness to other parties by putting them on sufficient notice as to what they must defend against.<sup>36</sup> Here, New York concedes that its original petition failed to cite section 51.22(b), much less to argue that “special circumstances” within the meaning of section 51.22(b) precluded the application of a categorical exclusion. See Tr. at 138-39. New York’s effort to do so in its reply brief is unjustifiably late and must be rejected.<sup>37</sup>

Even if New York’s section 51.22(b) argument were timely and litigable, we still would find it to be insubstantial. In asserting that “special circumstances” exist within the

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<sup>35</sup> See DTE Electric Co. (Fermi Nuclear Power Plant, Unit 2), CLI-15-18, 82 NRC \_\_, \_\_ (slip op. at 15 (Sept. 8, 2015)); see also U.S. Dep’t of Energy (High-Level Waste Repository), CLI-09-14, 69 NRC 580, 588 (2009) (Commission declares that a petitioner “is confined to the contentions as initially filed and may not rectify its deficiencies through its reply brief”).

<sup>36</sup> See Nuclear Mgmt. Co., LLC (Palisades Nuclear Plant), CLI-06-17, 63 NRC 727, 732 (2006) (“Allowing new claims in a reply not only would defeat the contention-filing deadline, but would unfairly deprive other participants of an opportunity to rebut the new claims.”); La. Energy Servs., L.P. (National Enrichment Facility), CLI-04-35, 60 NRC 619, 623 (2004) (“What our rules do not allow is using reply briefs to provide, for the first time, the necessary threshold support for contentions; such a practice would effectively bypass and eviscerate our rules governing timely filing . . .”).

<sup>37</sup> New York’s reliance on the decision in Pa’ina Hawaii, LLC is misplaced. See New York Reply at 19; Tr. at 75. In that case, the licensing board admitted contentions when the petitioner raised a timely argument affirmatively asserting that special circumstances existed under section 51.22(b) that precluded application of the categorical exclusion. See Pa’ina Haw., LLC, LBP-06-04, 63 NRC at 108, 112.

meaning of section 51.22(b), New York relies on factual assertions underlying Contention NYS-1; namely, the “various historical degradation events . . . as well as the reactor’s location in the most densely populated part of the country.” New York Reply at 19. In the context of our Contention NYS-1 analysis, supra Part II.B.2, we concluded that those assertions failed to raise a genuine dispute of material fact or law with Entergy’s LAR. They gain no additional traction in New York’s effort to show that “special circumstances” justify excepting Entergy’s LAR from the categorical exclusion of section 51.22(c).

### III. CONCLUSION

For the foregoing reasons, the Board denies New York’s petition to intervene.

New York may file an appeal from this Memorandum and Order within twenty-five (25) days of service of this decision by filing a notice of appeal and an accompanying supporting brief pursuant to 10 C.F.R. § 2.311(b). Any party opposing an appeal may file a brief in opposition. All briefs must conform to the requirements of 10 C.F.R. § 2.341(c)(3).

It is so ORDERED.

THE ATOMIC SAFETY  
AND LICENSING BOARD

*/RA/*

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E. Roy Hawkens, Chairman  
ADMINISTRATIVE JUDGE

*/RA/*

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Dr. Gary S. Arnold  
ADMINISTRATIVE JUDGE

*/RA/*

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Dr. Sue H. Abreu  
ADMINISTRATIVE JUDGE

Rockville, Maryland  
September 25, 2015

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

In the Matter of )  
 )  
ENTERGY NUCLEAR OPERATIONS, INC. ) Docket Nos. 50-247-LA  
 )  
(Indian Point Nuclear Generating )  
Station, Unit 2) )

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing **MEMORANDUM AND ORDER (Denying New York's Petition to Intervene) (LBP-15-26)**, have been served upon the following persons by Electronic Information Exchange.

U.S. Nuclear Regulatory Commission  
Office of Commission Appellate  
Adjudication  
Mail Stop O-7H4M  
Washington, DC 20555-0001  
[ocaamail@nrc.gov](mailto:ocaamail@nrc.gov)

Edward L. Williamson, Esq.  
Beth N. Mizuno, Esq.  
David E. Roth, Esq.  
Sherwin E. Turk, Esq.  
Brian Harris, Esq.  
Anita Ghosh, Esq.  
John Tibbetts, Paralegal

U.S. Nuclear Regulatory Commission  
Office of the Secretary of the Commission  
Mail Stop O-16C1  
Washington, DC 20555-0001  
[hearingdocket@nrc.gov](mailto:hearingdocket@nrc.gov)

U.S. Nuclear Regulatory Commission  
Office of the General Counsel  
Mail Stop O-15D21  
Washington, DC 20555-0001  
[edward.williamson@nrc.gov](mailto:edward.williamson@nrc.gov)  
[beth.mizuno@nrc.gov](mailto:beth.mizuno@nrc.gov)  
[david.roth@nrc.gov](mailto:david.roth@nrc.gov)  
[sherwin.turk@nrc.gov](mailto:sherwin.turk@nrc.gov)  
[brian.harris.@nrc.gov](mailto:brian.harris.@nrc.gov)  
[anita.ghosh@nrc.gov](mailto:anita.ghosh@nrc.gov)  
[john.tibbetts@nrc.gov](mailto:john.tibbetts@nrc.gov)

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

E. Roy Hawken, Chairman  
Chief Administrative Judge  
[Roy.Hawken@nrc.gov](mailto:Roy.Hawken@nrc.gov)

OGC Mail Center  
[OGCMailCenter@nrc.gov](mailto:OGCMailCenter@nrc.gov)

Dr. Gary S. Arnold  
Administrative Judge  
[Gary.Arnold@nrc.gov](mailto:Gary.Arnold@nrc.gov)

Paul M. Bessette, Esq.  
Raphael Kuyler, Esq.  
Kathryn M. Sutton, Esq.  
Morgan, Lewis & Bockius, LLP  
1111 Pennsylvania Avenue, NW  
Washington, DC 20004  
[pbessette@morganlewis.com](mailto:pbessette@morganlewis.com)  
[rkuyler@morganlewis.com](mailto:rkuyler@morganlewis.com);  
[ksutton@morganlewis.com](mailto:ksutton@morganlewis.com)

Dr. Sue H. Abreu  
Administrative Judge  
[Sue.Abreu@nrc.gov](mailto:Sue.Abreu@nrc.gov)

Alana Wase, Law Clerk  
[alana.wase@nrc.gov](mailto:alana.wase@nrc.gov)

**MEMORANDUM AND ORDER (Denying New York's Petition to Intervene) (LBP-15-26)**

Martin O'Neil, Esq.  
Morgan, Lewis & Bockius, LLP  
1000 Louisiana Street  
Suite 4000  
Houston, TX 77002  
[martin.oneill@morganlewis.com](mailto:martin.oneill@morganlewis.com)

William B. Glew, Jr.  
Organization: Entergy  
440 Hamilton Avenue, White Plains, NY  
10601  
[wglew@entergy.com](mailto:wglew@entergy.com)

Siobhan Blank, Esq.  
Lisa S. Kwong, Esq.  
Brian Lusignan, Esq.  
John J. Sipos, Esq.  
Assistant Attorneys General  
Teresa Manzi, Legal Assistant  
Office of the Attorney General  
of the State of New York  
The Capitol  
Albany, New York 12224-0341  
[siobhan.blank@ag.ny.gov](mailto:siobhan.blank@ag.ny.gov)  
[lisa.kwong@ag.ny.gov](mailto:lisa.kwong@ag.ny.gov)  
[brian.lusignan@ag.ny.gov](mailto:brian.lusignan@ag.ny.gov)  
[john.sipos@ag.ny.gov](mailto:john.sipos@ag.ny.gov)  
[teresa.manzi@ag.ny.gov](mailto:teresa.manzi@ag.ny.gov)

Jeanne Cho  
Senior Counsel  
Entergy Services, Inc.  
440 Hamilton Avenue  
White Plains, NY 10601  
[jcho1@entergy.com](mailto:jcho1@entergy.com)

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

Dated at Rockville, Maryland  
this 25<sup>th</sup> day of September, 2015