

**UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION**

**BEFORE THE ATOMIC SAFETY AND LICENSING BOARD**

_____ )	Docket Nos. 50-247-LR and
In the Matter of )	50-286-LR
ENTERGY NUCLEAR OPERATIONS, INC. )	
(Indian Point Nuclear Generating Units 2 and 3) )	
_____ )	November 30, 2012

**ENTERGY’S ANSWER TO THE STATE OF NEW YORK STATE’S OBJECTION TO THE  
LICENSING BOARD’S ADMISSION OF ENTERGY HEARING EXHIBIT ENT000589**

**I. INTRODUCTION**

In accordance with 10 C.F.R. § 2.337(a) and the Atomic Safety and Licensing Board’s (“Board”) November 28, 2012 oral directive, Entergy Nuclear Operations, Inc. (“Entergy”) files this Answer to The State of New York’s Objection to ENT000589 (“Objection”), dated November 21, 2012. The State of New York (“NYS” or “the State”) objects to the Board’s admission of ENT000589. That exhibit is a revised MACCS2 sensitivity analysis prepared by Entergy’s experts in advance of the October 22, 2012 evidentiary hearing on contention NYS-16B and disclosed to NYS on October 12, 2012.<sup>1</sup> The Board received ENT000589 into evidence on October 22, 2012, “subject to a later objection” by NYS.<sup>2</sup>

NYS now objects to the admission of ENT000589 on the grounds that it is irrelevant, immaterial, and unreliable under 10 C.F.R. § 2.337(a), and that Entergy did not show good cause for its allegedly untimely proffer of that exhibit.<sup>3</sup> NYS argues that ENT000589 is inadmissible because it: (1) does not incorporate NYS’s proposed values for other MACCS2 parameters at issue in *another*

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<sup>1</sup> See MACCS2 Sensitivity Analysis for NYS-16B Using Dr. Sheppard’s Proposed Data (Oct. 9, 2012) (ENT000589). Contention NYS-16B alleges that Entergy’s severe accident mitigation alternatives (“SAMA”) analysis for Indian Point Energy Center (“IPEC”) is based on inaccurate population estimates. See *Entergy Nuclear Operations, Inc.* (Indian Point, Units 2 & 3), LBP-08-13, 68 NRC 43, 112 (2008).

<sup>2</sup> Official Transcript of Proceedings, Indian Point Nuclear Generating Units 2 & 3 at 2519:5-6 (Oct. 22, 2012) (“Tr.”).

<sup>3</sup> See Objection at 1, 3, 7.

SAMA-related contention (NYS-12C); (2) indicates a margin to the next cost-beneficial SAMA candidate that is “too close to be considered relevant, material, or reliable;” (3) is inconsistent with testimony offered by Entergy’s experts during the recent hearings on NYS-12C and NYS-16B; and (4) has prejudiced the State.<sup>4</sup>

For the reasons explained below, Entergy respectfully requests that the Board overrule NYS’s objection to the admission of ENT000589. In NYS’s own words: “Rather than exclude evidence, this Board has generally opted to ‘give all evidence its appropriate weight at evidentiary hearing in the context of evaluating the specific issue before [it].’”<sup>5</sup> NYS’s instant Objection presents no reason to depart from the Board’s preferred approach. Indeed, the Objection is based on gross factual mischaracterizations, inapposite legal arguments, and unsupported claims of prejudice. Therefore, the Objection should be denied.

## **II. ARGUMENT**

### **A. Contrary to Its Present Claim, NYS Never “Disputed the Relevance” of Entergy’s Original NYS-16B Sensitivity Analysis**

At the outset of its Objection, NYS claims to have “disputed the relevance” of Entergy’s original sensitivity analysis,<sup>6</sup> which Entergy submitted as ENT000006 on March 28, 2012.<sup>7</sup> That is mistaken. NYS did not file a motion in limine seeking to strike the original sensitivity analysis as inadmissible under 10 C.F.R. § 2.337(a). Rather, in its June 2012 revised position statement and rebuttal testimony concerning NYS-16B, NYS claimed that the analysis was “flawed” and “inconclusive” because it did not: (1) incorporate NYS’s proposed inputs for the parameters at issue in contention NYS-12C; (2) account for Dr. Sheppard’s full commuter population estimate instead of using half of that estimate; and

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<sup>4</sup> *Id.* at 3-8.

<sup>5</sup> State of New York’s Answer to Entergy’s Motion in Limine to Exclude Portions of New York State’s Rebuttal Filings on Contention NYS-16B at 7 (Aug. 9, 2012) (*quoting* Licensing Board Order (Granting in Part and Denying in Part Applicant’s Motions in Limine) at 20, 24 (Mar. 6, 2012) (unpublished)).

<sup>6</sup> Objection at 2.

<sup>7</sup> MACCS2 IP2 Population Sensitivity Case (Jan. 2012) (ENT000006).

(3) distribute Dr. Sheppard’s proposed population increases “proportionately” throughout the fifty-mile SAMA analysis region.<sup>8</sup> These are merits arguments, not evidentiary objections.

Regardless, NYS’s prior criticisms of Entergy’s original sensitivity analysis underscore the relevance of Entergy’s revised sensitivity analysis. As discussed during the recent hearing, Entergy performed the October 2012 revised sensitivity study to demonstrate that, even if Entergy’s MACCS2 population input values were adjusted to account for all of Dr. Sheppard’s proposed population changes or criticisms, there would be no material impact on the overall SAMA analysis conclusions—not because it agrees with any of Dr. Sheppard’s proposed changes to the underlying population data.<sup>9</sup> As reflected in ENT000589, the revised sensitivity analysis incorporates (1) the full census undercount and commuter-related population increases proposed by Dr. Sheppard, (2) the peak populations for the three counties (New York, Rockland, and Westchester) projected to have population peaks prior to 2035, and (3) Dr. Sheppard’s preferred population distribution method.<sup>10</sup> Entergy’s revised sensitivity case thus is *directly responsive* to Dr. Sheppard’s criticisms of Entergy’s original sensitivity analysis. This fact belies NYS’s claim that Entergy’s revised sensitivity analysis is irrelevant and immaterial to the issues in dispute in NYS-16B.

**B. There is No Factual or Legal Basis for NYS’s Claim That Entergy’s Revised NYS-16B Sensitivity Analysis Must Incorporate MACCS2 Input Parameters Proposed by the State in Its NYS-12C Testimony to Constitute Admissible Evidence Under 10 C.F.R. § 2.337(a)**

NYS also argues that Entergy’s revised sensitivity analysis is irrelevant and immaterial because it “continues to improperly view” the State’s two admitted SAMA contentions (NYS-12C and NYS-16B) “in isolation.”<sup>11</sup> That argument has no basis in fact or law. As a factual matter, contentions NYS-

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<sup>8</sup> See State of New York Revised Statement of Position [on] Contention NYS-16/16A/16B (“NYS-16B”) at 13-16 (June 29, 2012) (NYS000403) (“NYS-16B Revised Position Statement”); Rebuttal Testimony of Dr. Stephen Sheppard, Ph.D. Regarding Contention NYS-16/16A/16B (“NYS-16B”) at 33-38 (June 29, 2012) (NYS000404) (“Sheppard NYS-16B Rebuttal Testimony”).

<sup>9</sup> See Tr. at 2517-2518 (Oct. 22, 2012) (Mr. Teagarden). Entergy does not consider its original sensitivity analysis to be flawed or inconclusive.

<sup>10</sup> See ENT000589 at 2.

<sup>11</sup> Objection at 3.

12C and NYS-16B raise two distinct challenges—separately pled by NYS and supported by two different experts (Dr. Lemay and Dr. Sheppard), separately admitted by the Board, and separately addressed during the October 2012 hearings. NYS-16B alleges that the Staff’s December 2010 Final Supplemental Environmental Impact Statement (“FSEIS”) for IPEC is legally deficient “because it accepts a SAMA analysis predicated on inaccurate population estimates.”<sup>12</sup> And, as admitted by the Board, NYS-16B alleges *no* other underestimated inputs to Entergy’s SAMA analysis. Notably, NYS did not assert that NYS-12C and NYS-16B must be evaluated as an “aggregate” or “combined” contention until it made its June 2012 *rebuttal* filings.<sup>13</sup>

It is true that Entergy’s March and October 2012 MACCS2 sensitivity studies focused exclusively on Dr. Sheppard’s proposed population increases. But that approach is entirely reasonable given the discrete, site-specific nature of Entergy’s 2035 population estimate—the *only* MACCS2 input parameter at issue in NYS-16B (and, as explained further below, one that lends itself to a relatively straightforward sensitivity analysis of the type performed by Entergy’s experts).

In contrast, NYS’s expert for NYS-12C (Dr. Lemay) proposes grossly-inflated values for multiple inputs to the MACCS2 economic model (CHRONC)—values that NYS posits would increase the calculated offsite economic cost risk (“OECR”) by *300% to 700%*.<sup>14</sup> Entergy’s and the Nuclear Regulatory Commission (“NRC”) Staff’s experts fully explained in their written and oral testimony why the alternative economic and decontamination-related input values proposed by NYS and Dr. Lemay lack a sound and unified technical basis and, consequently, are unreasonable for use in a SAMA analysis performed for purposes of compliance with the National Environmental Policy Act (“NEPA”).<sup>15</sup>

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<sup>12</sup> State of New York Initial Statement of Position [on] Contention NYS-16/16A/16B (“NYS-16B”) at 14 (Dec. 16, 2011) (NYS000206).

<sup>13</sup> Objection at 3-4; NYS-16B Revised Position Statement at 13 (NYS000403); Sheppard NYS-16B Rebuttal Testimony at 36-37 (NYS000404).

<sup>14</sup> *See, e.g.*, Pre-Filed Written Rebuttal Testimony of Dr. François J. Lemay Regarding Consolidated Contention NYS-12C (NYS-12/12A/12B/12C) at 3 (June 29, 2012) (NYS000420).

<sup>15</sup> *See, e.g.*, Testimony of Applicant Witnesses Lori Potts, Kevin O’Kula, and Grant Teagarden Concerning Consolidated Contention NYS-12C (Severe Accident Mitigation Alternatives Analysis) at A26, A98-A103, A112-A157, A160 (Mar. 30, 2012) (ENT000450) (“Entergy NYS-12C Testimony”); NRC Staff Testimony of Nathan E. Bixler, S. Tina Ghosh,

As a legal matter, NYS provides no authority for its conclusory argument that “the Board *must* evaluate materiality based on the combined impact of the SAMA input changes asserted in Contentions NYS-12C and NYS-16B.”<sup>16</sup> NYS, in essence, is arguing that Entergy’s NYS-16B evidence is only material if Entergy addresses all of NYS’s NYS-12C and NYS-16B arguments together—this is simply nonsensical. Further, it is ultimately the Board—not NYS—that decides what issues are relevant and material to the resolution of a specific contention. As explained above, Entergy’s original and revised MACCS2 sensitivity analyses respond to specific arguments made by Dr. Sheppard related to NYS-16B. Those analyses are directly relevant and material to the resolution of NYS-16B and should be accorded due weight by the Board in its merits ruling.

NYS further argues that “the Board must determine whether the combined impact of all the individual input errors in Entergy’s SAMA analysis distorted its outcome by underestimating the environmental costs of relicensing.”<sup>17</sup> This NYS argument also is misplaced. First, the judicial decision on which NYS relies, *Grand Canyon Trust v. FAA*, 290 F.3d 339 (D.C. Cir. 2002), is inapposite. That decision concerned the adequacy of a federal agency’s *cumulative impacts* analysis under NEPA.<sup>18</sup> It has nothing to do with the analysis of mitigation alternatives (including SAMAs) under NEPA or this Board’s purported duty to consider NYS-12C and NYS-16B as a “combined” contention.<sup>19</sup> Second, NYS’s reference to 10 C.F.R. § 51.95(c)(4) is irrelevant.<sup>20</sup> That regulation states, in pertinent part, that the “Commission shall determine whether or not the *adverse environmental impacts of license renewal* are so great that preserving the option of license renewal for energy planning decisionmakers would be

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Joseph A. Jones, and Donald G. Harrison Concerning Contentions NYS 12/16 at A6, A25, A28, A38-A59, A63-A84 (Mar. 30, 2012) (NRC000041) (“NRC Staff NYS-12/16 Testimony”).

<sup>16</sup> Objection at 3 (emphasis added).

<sup>17</sup> Objection at 4.

<sup>18</sup> See *Grand Canyon Trust*, 290 F.3d at 341-47 (holding that the Federal Aviation Administration (“FAA”) had failed, in an environmental assessment, to evaluate the cumulative impact of noise pollution on a national park resulting from construction of a proposed replacement airport in light of current air traffic near and over the park).

<sup>19</sup> Objection at 3-4.

<sup>20</sup> See *id.* at 4 n.2.

unreasonable.”<sup>21</sup> Insofar as NYS suggests that a “distorted” SAMA analysis will somehow lead to underestimating the environmental impacts of license renewal, it is mistaken.<sup>22</sup> Based on the NRC’s prior evaluation of severe accidents, 10 C.F.R. Part 51 concludes that the probability-weighted consequences from severe accidents are *small* for all plants.<sup>23</sup> Thus, “NRC SAMA analyses are not a substitute for, and do not represent, the NRC NEPA analysis of potential impacts of severe accidents.”<sup>24</sup> There is no risk here that the Board will underestimate the environmental impacts of IPEC license renewal by allowing Entergy’s revised sensitivity analysis to remain in evidence, and by appropriately weighing that evidence as part of its merits ruling.

### C. NYS’s “Too Close” of a Margin Argument Lacks a Basis in Law or Fact

NYS further argues that “the increase necessary to make IP2 SAMA 025 cost-beneficial—6.15% vs. 11%—is *too close* to be considered relevant, material, or reliable given the other evidence offered at the hearing.”<sup>25</sup> As an initial matter, there is no legal basis for NYS’s suggestion that the Board must look to “other evidence offered at the hearing” to assess the relevance, materiality, or reliability of the exhibit at issue here.<sup>26</sup> NYS cites none.

NYS’s “too close” argument is factually groundless. Entergy’s revised sensitivity analysis specifically assesses the effect of using Dr. Sheppard’s proposed population value and distribution assumptions.<sup>27</sup> The result is an estimated 6.15% increase in the total estimated cost of an accident, which is unequivocally less than the approximately 11% increase needed to render another SAMA cost-

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<sup>21</sup> 10 C.F.R. § 51.95(c)(4) (emphasis added).

<sup>22</sup> Objection at 4.

<sup>23</sup> See 10 C.F.R. Part 51, Subpart A, Appendix B, Table B-1.

<sup>24</sup> *Entergy Nuclear Generation Co.* (Pilgrim Nuclear Power Station), CLI-10-11, 71 NRC 287, 316 (2010); see also *Entergy Nuclear Generation Co.* (Pilgrim Nuclear Power Station), CLI-12-15, 75 NRC \_\_\_, slip op. at 5-6 (June 7, 2012) (citing “Generic Environmental Impact Statement for License Renewal of Nuclear Plants—Main Report” (Final Report), NUREG-1437, Vol. 1 at 5-12 to 5-116 (May 1996) (“GEIS”)) (stating that SAMA analyses “must also be understood against the backdrop of the [GEIS], which contains a bounding, generic severe accident impacts analysis, applicable to all plants,” and that “no site-specific severe accident impacts analysis need be done”).

<sup>25</sup> Objection at 3 (emphasis added).

<sup>26</sup> *Id.* at 3, 6.

<sup>27</sup> See ENT000589 at 1-2; Tr. at 2517-2518 (Oct. 22, 2012) (Mr. Teagarden).

beneficial under the December 2009 revised SAMA analysis.<sup>28</sup> NYS’s assertion that this roughly 5% difference may be “overcome” by looking at assumptions used by the NRC Staff/Sandia in the FSEIS or “scrutinizing the polynomial regression that Entergy completed for three counties” is unsupported conjecture by counsel.<sup>29</sup> Moreover, NYS overlooks the fact that there are significant conservatisms included in the IPEC SAMA analysis that, if removed, would *increase* the 5% margin cited by NYS as “too close.”<sup>30</sup> In short, the numbers clearly show that, even if Dr. Sheppard’s proposed population adjustments are *assumed* to be valid (which they are not), including them does not result in the identification of any additional cost-beneficial SAMA.<sup>31</sup>

**D. Entergy’s Revised Sensitivity Analysis Is Fully Consistent With the Testimony Provided by Entergy’s Experts During the October 2012 Evidentiary Hearings**

NYS’s argument that Entergy’s revised sensitivity analysis and hearing testimony are inconsistent is not supported by the record.<sup>32</sup> For the revised NYS-16B sensitivity analysis, Entergy increased the population distribution in the MACCS2 analysis by 6.7% (by incorporating all of Dr. Sheppard’s proposed population values), and determined that the population dose risk (“PDR”) and

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<sup>28</sup> See ENT000589 at 2, 8; NL-09-165, Letter from Fred Dacimo, Entergy, to NRC, License Renewal Application - SAMA Reanalysis Using Alternate Meteorological Tower Data, Indian Point Nuclear Generating Units Nos. 2 and 3, Attach 1 at 30 (Table 6) (Dec. 11, 2009) (ENT000009) (“NL-09-165”).

<sup>29</sup> Objection at 6. It bears emphasis that, for the revised sensitivity case, Entergy used the maximum population for the three counties during the projection period and applied the maximum county population as a surrogate for the year 2035. See Tr. at 2517-2518 (Oct. 22, 2012) (Mr. Teagarden). Entergy did not use any complex statistical technique, such as regression analysis, to estimate a revised 2035 value. See ENT000589 at 2-4. Use of the maximum value is conservative compared to the state data population projections, which show a decrease of population in the year 2035 (as compared to prior years in the projection period). Tr. at 2434 (Oct. 22, 2012) (Ms. Potts).

<sup>30</sup> For example, the IPEC SAMA analysis used two multipliers on the internal benefit quantification to account for external events and analysis uncertainties. See Entergy NYS-12C Testimony at A62, A160 (ENT000450) and NRC Staff NYS-12/16 Testimony at A14, A84 (NRC000041) (both discussing Entergy’s use of an external events multiplier and a 95th percentile core damage frequency uncertainty factor for internal events); Tr. at 2220:4-11 (Oct. 18, 2012) (Ms. Potts) (stating that “the combination of these two factors, the external event factor and the uncertainty factor was a factor of eight”); Tr. at 2231:20-23 (Oct. 18, 2012) (Dr. Ghosh) (“So with this factor of eight, that is applied to the initial calculation of total internal benefits, we believe there’s actually a fairly large cushion that’s already in there.”). There also are conservatisms inherent in Entergy’s population estimate. See, e.g., Testimony of Entergy Witnesses Lori Potts, Kevin O’Kula, Grant Teagarden, and Jerry Riggs on Consolidated Contention NYS-16B (Severe Accident Mitigation Analysis) at A56, A58 to A62, A68 (Mar. 28, 2012) (ENT000003); Tr. at 2454:15-25 to 2455:1-3 (Oct. 22, 2012) (Ms. Potts); Tr. at 2494:23-25 to 2495:1-16 (Oct. 22, 2012) (Mr. Teagarden).

<sup>31</sup> See *Pilgrim*, CLI-12-15, slip op. at 13 (“Contentions challenging a SAMA analysis therefore must identify a deficiency that plausibly could alter the overall result of the analysis in a material way.”).

<sup>32</sup> See Objection at 4-6.

OECR increased by approximately 6.7% and 6.8%, respectively.<sup>33</sup> The impact to the total estimated *baseline* accident costs (*i.e.*, incorporating on-site costs, which are not calculated by MACCS2) resulting from the increased population was an estimated 6.15% increase.<sup>34</sup> Entergy’s experts compared this 6.15% increase to the margin that exists in the next potentially cost-beneficial SAMA candidate (approximately 11% for IP2 SAMA 025, as documented in Entergy’s December 2009 revised SAMA analysis (ENT000009)) to demonstrate that NYS’s postulated population increases—even if fully accepted—would not have any material impact on the SAMA analysis conclusions.<sup>35</sup>

The testimony of Ms. Potts and Mr. Teagarden quoted by NYS on pages 5-6 of its Objection is not “inconsistent” with Entergy’s NYS-16B sensitivity analyses. That testimony simply reflects that the extremely large increases in the OECR posited by NYS’s expert in his NYS-12C testimony—300% to 700%, not 6.8%—present a very different situation. Extrapolating such large proposed MACCS2 input changes to assess the potential effects on the SAMA cost-benefit analysis conclusions is not intuitively obvious or simple to perform.<sup>36</sup> As Mr. Teagarden explained, “each SAMA candidate has its own unique footprint of how it impacts the risk.”<sup>37</sup> That is, the PDR and OECR risk reduction benefits differ for different SAMA candidates, as shown in Tables 4 and 5 of Entergy’s revised SAMA analysis.<sup>38</sup> Significant changes to the MACCS2 inputs, as postulated in the State’s NYS-12C testimony, could change the PDR and OECR reduction percentages for each SAMA in a non-uniform manner.<sup>39</sup> As Mr. Teagarden further explained, in those circumstances, each SAMA candidate would need to be evaluated

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<sup>33</sup> See ENT000589 at 2, 5; Tr. at 2518 (Oct. 22, 2012) (Mr. Teagarden).

<sup>34</sup> See ENT000589 at 2, 8.

<sup>35</sup> See ENT000589 at 2; Tr. at 2518 (Oct. 22, 2012) (Mr. Teagarden).

<sup>36</sup> This is not to mention the fact that, in the view of Entergy’s experts, NYS has presented no unified technical basis for its proposed alternative MACCS2 inputs that considers the interdependencies among the relevant variables (*e.g.*, DSRFCT, TIMDEC, CDNFRM). See, *e.g.*, Entergy NYS-12C Testimony at A102, A103; Tr. at 2248:2-9 (Oct. 18, 2012) (Mr. Teagarden).

<sup>37</sup> Tr. at 2527:9-11 (Oct. 22, 2012) (Mr. Teagarden). Also, in addition to the impacts to OECR, the impacts to PDR (including decreases in the PDR) would need to be evaluated and incorporated into the development of the revised baseline total cost risk.

<sup>38</sup> See NL-09-165, Attach 1 at 10-28 (ENT000009).

<sup>39</sup> See Tr. at 2527:19-21 (Oct. 22, 2012) (Mr. Teagarden) (“[I]t’s dependent upon how the risk is being increased, and how that relates to the mitigation that that SAMA candidate is providing.”).

to explicitly calculate the benefit afforded by that SAMA candidate.<sup>40</sup>

However, for purposes of the NYS-16B sensitivity analyses, there was no need to perform this additional calculation for IP2 SAMA 025, because it was sufficiently clear that the SAMA analysis conclusions would not be changed—*i.e.*, a margin would be maintained due to the uniform impacts of the population input changes. Specifically, the revised NYS-16B sensitivity analysis increased the population in a uniform “proportional” manner.<sup>41</sup> The MACCS2 dose risk and cost risk essentially scale linearly with uniform population changes, as evidenced by the approximately linear change in PDR and OECR based on the change in population (PDR and OECR increased by 6.7% and 6.8%, respectively, for a 6.7% increase in population).<sup>42</sup> Entergy’s experts, therefore, judged the impact upon the PDR and OECR reduction percentages to be negligible; *i.e.*, they reasonably viewed the PDR and OECR reduction percentages as remaining unchanged. As noted above, this allowed them to directly compare the estimated 6.15% increase in the total estimated baseline accident cost to the approximately 11% margin that exists before another SAMA candidate (IP2 SAMA 025) becomes cost-beneficial.

In conclusion, the impact of NYS’s proposed increases to Entergy’s population value on the SAMA cost-benefit analysis conclusions (the issue raised by NYS-16B) could be readily assessed through the type of MACCS2 sensitivity analyses performed by Entergy’s experts in ENT000006 and ENT000589. For the reasons explained above, no “second level of analysis” is necessary to gauge the impact of NYS’s proposed population increases on the SAMA cost-benefit analysis conclusions.<sup>43</sup>

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<sup>40</sup> *Id.* at 2527:9-12 (“And each SAMA candidate has its own unique footprint of how it impacts the risk. So it’s something that would need to be evaluated.”). As Dr. Ghosh of the NRC Staff explained, in such an evaluation, the calculated benefits for additional SAMA candidates becoming cost-beneficial would be overstated. Specifically, if other, less costly SAMA candidates are determined to be potentially cost-beneficial, then those SAMAs presumably would be implemented first due to their lower implementation costs, thereby reducing a portion of the severe accident risk that might be used to justify the conclusion that more costly SAMA candidates are potentially cost-beneficial. *See* Tr. at 2163-2166, 2235-2236 (Oct. 18, 2012) (Dr. Ghosh); Tr. at 2527-2528 (Oct. 22, 2012) (Dr. Ghosh); *see also* NL-09-165, Attach. 1 at 32 (ENT000009) (“Since some of the potentially cost beneficial SAMAs address the same risk contributors, implementation of an optimal subset of these SAMAs could achieve a large portion of the total risk reduction at a fraction of the cost, and render the remaining SAMAs no longer cost beneficial.”).

<sup>41</sup> *See* ENT000589 at 2-3.

<sup>42</sup> *See* Tr. at 2518:3-7 (Oct. 22, 2012) (Mr. Teagarden); *see also id.* at 2517:15-18 (“So it is reasonable that as you add population, you would see these two metrics [OECR and PDR] increase somewhat linearly with population.”).

<sup>43</sup> Objection at 6.

Entergy's NYS-16B sensitivity analyses remain relevant, material, and reliable in their current form.

**E. Entergy's Submittal of ENT000589 Is Supported By Good Cause and Did Not "Inflict" Any Prejudice on New York State**

Contrary to NYS's suggestion, Entergy's preparation and disclosure of its revised sensitivity analysis shortly before trial was not the result of subterfuge or deliberate delay.<sup>44</sup> Entergy made the decision to perform the revised sensitivity analysis in the course of its intensive hearing preparations, which, for obvious reasons, occurred close in time to the actual hearing. Further, the revised analysis is simply an extension or augmentation of Entergy's March 2012 sensitivity analysis, which NYS did *not* object to as inadmissible evidence. As noted previously, the revised analysis responds directly to criticisms made by Dr. Sheppard in his June 2012 rebuttal testimony. It is not a brand new analysis, and it does not inject new claims into the proceeding.<sup>45</sup> The revised sensitivity analysis is supported by good cause, because it meaningfully informs the Board's consideration of the relevant inquiry here: Whether Dr. Sheppard's proposed increases to Entergy's population estimate (if technically justified) would "have a material impact on the overall SAMA analysis conclusions."<sup>46</sup>

NYS's claim that Entergy has inflicted prejudice through "untimely evidentiary proffers" also rings hollow in light of NYS's numerous last-minute evidentiary submittals.<sup>47</sup> For example, in connection with contention NYS-17B, NYS disclosed a new analysis (Exhibit NYS000446) by its expert on Saturday, October 20, 2012, at approximately 9 p.m. The hearing on Contention NYS-17B began on Monday, October 22, 2012. NYS also disclosed a new exhibit (NYS000466) on the morning of the supplemental evidentiary hearing session held for contention NYS-37 on November 28, 2012. These are just two examples.

In this case, Entergy disclosed the revised sensitivity case (ENT000589) on October 12, 2012,

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<sup>44</sup> See Objection at 1-2, 7-8.

<sup>45</sup> See Tr. at 2096-2097 (Oct. 18, 2012) (Mr. Bessette).

<sup>46</sup> *Entergy Nuclear Generation Co.* (Pilgrim Nuclear Power Station), CLI-12-01, 75 NRC \_\_\_, slip op. at 11 (Feb. 9, 2012); see also *id.* at 12-14, 19-21.

<sup>47</sup> Objection at 7.

ten days before the actual hearing took place on October 22, 2012. NYS had ample time to formulate its own cross-examination questions and, arguably, also could have prepared focused cross-examination questions for use by the Board. NYS's argument that it lacked sufficient time to develop cross-examination questions related to a single exhibit strains credulity.

### III. CONCLUSION

For the reasons stated above, Entergy respectfully requests that the Board overrule NYS's objection to the admission of ENT000589 into evidence.

Respectfully submitted,

*Executed by undersigned counsel in accord  
with 10 C.F.R. § 2.304(d)*

*Signed (electronically) by Lance A. Escher*

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*Counsel for Entergy Nuclear Operations, Inc.*

Dated in Washington, D.C.  
this 30th day of November 2012

**UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION**

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ENTERGY NUCLEAR OPERATIONS, INC.	)	
	)	
(Indian Point Nuclear Generating Units 2 and 3)	)	
	)	November 30, 2012

**CERTIFICATE OF SERVICE**

Pursuant to 10 C.F.R. § 2.305 (as revised), I certify that, on this date, copies of “Entergy’s Answer to The State New York’s Objection to the Licensing Board’s Admission of Entergy Hearing Exhibit ENT000589” were served upon the Electronic Information Exchange (the NRC’s E-Filing System), in the above-captioned proceeding.

*Signed (electronically) by Lance A. Escher*

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