

**UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION**

BEFORE THE COMMISSION

In the Matter of)	Docket Nos. 50-247-LR and
ENTERGY NUCLEAR OPERATIONS, INC.)	50-286-LR
(Indian Point Nuclear Generating Units 2 and 3))	
	May 23, 2014

**APPLICANT'S ANSWER OPPOSING NEW YORK STATE'S PETITION FOR REVIEW
OF APRIL 1, 2014 BOARD ORDER DENYING RECONSIDERATION OF LBP-13-13**

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TABLE OF CONTENTS

	Page
I. INTRODUCTION	1
II. STATEMENT OF THE CASE.....	3
III. STANDARD OF REVIEW	7
IV. THE COMMISSION SHOULD DENY THE PETITION FOR REVIEW	8
A. New York’s Submittal of a Second Petition for Review Is Inconsistent with the Commission’s February 28, 2014 Order.....	9
B. The Board Did Not Overlook Any Evidence That Possibly Could Have Resulted in a Materially Different Outcome With Respect to Its Resolution of NYS-12C	10
1. The 365-Day TIMDEC Value Applied in the SFP Consequence Study Has No Relevance to the IPEC SAMA Analysis or the Board’s Decision on NYS-12C.....	10
2. New York’s Flawed TIMDEC/Worker Calculations Focus on the Most Severe Accidents Without Regard to Their Probabilities And Thus Ignore the Probabilistic Nature of a SAMA Analysis	14
3. Contrary to Its Claims, New York Has Not Demonstrated That Any of Its Additional Evidence Would Materially Affect the SAMA Analysis Results	16
C. The Board Correctly Applied the Relevant Legal Standards in Denying New York’s Motion to Reopen the Record and For Reconsideration of LBP-13-13.....	19
1. The Board Correctly Applied the Commission’s Standards for Reopening a Closed Evidentiary Record	19
2. The Board Correctly Applied the Commission’s Standards for Reconsideration of a Final Decision.....	20
3. The Board’s Decision Is Fully Consistent With Controlling NEPA Principles and Commission Precedent Regarding SAMA Analyses	21
D. No Action by the NRC Staff or the Board Has Prejudiced New York’s Ability to Participate Fully in This Proceeding	24
V. CONCLUSION.....	24

TABLE OF AUTHORITIES

Pages

U.S. Supreme Court Decisions

Marsh v. Or. Natural Res. Council, 490 U.S. 360 (1989)23

U.S. Court of Appeals Decisions

Friends of Endangered Species, Inc. v. Jantzen, 760 F.2d 976 (9th Cir. 1985)23

Mass v. NRC, 708 F.3d 63 (1st Cir. 2013).....23

Mass. v. U.S., 522 F.3d 115 (1st Cir. 2008).....12

U.S. Nuclear Regulatory Commission and Atomic Safety and Licensing Board Decisions

AmerGen Energy Co. (Oyster Creek Nuclear Generating Station), CLI-08-28, 68 NRC 658 (2008)20

AmerGen Energy Co. (Oyster Creek Nuclear Generating Station), CLI-09-7, 69 NRC 235 (2009)8

Consumers Energy Co., et al. (Palisades Nuclear Power Plant), CLI-07-22, 54 NRC 525 (2007)21

Dominion Nuclear Conn., Inc. (Millstone Nuclear Power Station, Units 2 & 3), LBP-04-22, 60 NRC 379 (2004).....21

Dominion Nuclear Conn., Inc. (Millstone Nuclear Power Station, Units 2 & 3), CLI-04-36, 60 NRC 631 (2004).....21

Entergy Nuclear Generation Co. and Entergy Nuclear Operations, Inc. (Pilgrim Nuclear Power Station), CLI-07-3, 65 NRC 13 (2007).....12

Entergy Nuclear Generation Co. and Entergy Nuclear Operations, Inc. (Pilgrim Nuclear Power Station), CLI-10-11, 71 NRC 287 (2010).....12, 23

Entergy Nuclear Generation Co. and Entergy Nuclear Operations, Inc. (Pilgrim Nuclear Power Station), CLI-10-15, 71 NRC 479 (2010).....12, 21

TABLE OF AUTHORITIES

(continued)

	Pages
<i>Entergy Nuclear Generation Co. and Entergy Nuclear Operations, Inc.</i> (Pilgrim Nuclear Power Station), CLI-12-15, 75 NRC 704 (2012).....	21, 23
<i>Entergy Nuclear Operations, Inc.</i> (Indian Point Nuclear Generating Units 2 & 3), LBP-13-13, 78 NRC __, slip op. (Nov. 27, 2013).....	<i>passim</i>
<i>FirstEnergy Nuclear Operating Co.</i> (Davis-Besse Nuclear Power Station, Unit 1), LBP-11-13, 73 NRC 534 (2011).....	12
<i>FirstEnergy Nuclear Operating Co.</i> (Davis-Besse Nuclear Power Station, Unit 1), CLI-12-8, 75 NRC 393 (2012).....	12
<i>Fla. Power & Light Co.</i> (Turkey Point Nuclear Generating Plant, Units 3 & 4), CLI-01-17, 54 NRC 3 (2001).....	12, 13
<i>Hydro Res., Inc.</i> (2929 Coors Road, Suite 101, Albuquerque, NM 87120), CLI-99-22, 50 NRC 3 (1999)	12
<i>Hydro Res., Inc.</i> (P.O. Box 777, Crownpoint, NM 87313), CLI-06-1, 63 NRC 1 (2006)	8
<i>NextEra Energy Seabrook, LLC</i> (Seabrook Station, Unit 1), CLI-12-5, 75 NRC 301 (2012)....	12, 22
<i>Pac. Gas & Elec Co.</i> (Diablo Canyon Nuclear Power Plant, Units 1 & 2), ALAB-775, 19 NRC 1361 (1984).....	20
<i>Pac. Gas & Elec Co.</i> (Diablo Canyon Power Plant Indep. Spent Fuel Storage Installation), CLI-06-27, 64 NRC 399 (2006).....	21
<i>Pac. Gas & Elec Co.</i> (Diablo Canyon Power Plant Indep. Spent Fuel Storage Installation), CLI-08-26, 68 NRC 509 (2008).....	23
<i>Private Fuel Storage, L.L.C.</i> (Indep. Spent Fuel Storage Installation), CLI-03-8, 58 NRC 11 (2003)	7
<i>Private Fuel Storage, L.L.C.</i> (Indep. Spent Fuel Storage Installation), CLI-05-1, 61 NRC 160 (2005)	8

TABLE OF AUTHORITIES

(continued)

	Pages
<i>Private Fuel Storage, L.L.C.</i> (Indep. Spent Fuel Storage Installation), CLI-05-16, 62 NRC 1 (2005)	8
<i>Private Fuel Storage, L.L.C.</i> (Indep. Spent Fuel Storage Installation), CLI-06-3, 63 NRC 19 (2006)	20
<i>Shieldalloy Metallurgical Corp.</i> (License Amendment Request for Decommissioning of the Newfield, New Jersey Facility), CLI-07-20, 65 NRC 499 (2007).....	7
<i>State of Alaska Dept. of Transp. and Pub. Facilities</i> (Confirmatory Order Modifying License), CLI-04-38, 60 NRC 652 (2004).....	21
<i>Tenn. Valley Auth.</i> (Hartsville Nuclear Plant Units 1A, 2A, 1B & 2B), ALAB-418, 6 NRC 1 (1977)	21
 <u>Federal Regulations</u>	
10 C.F.R. § 2.326	3
10 C.F.R. § 2.341	<i>passim</i>
10 C.F.R. § 2.345	3, 20
 <u>Federal Register</u>	
Criteria for Reopening Records in Formal Licensing Proceedings, 51 Fed. Reg. 19,535 (May 30, 1986)	20
Changes to Adjudicatory Process, 69 Fed. Reg. 2182 (Jan. 14, 2004).....	21
Draft Report; Request for Comment, Consequence Study of a Beyond-Design-Basis Earthquake Affecting the Spent Fuel Pool for a U.S. Mark I Boiling Water Reactor, 78 Fed. Reg. 39,781 (July 2, 2013)	21

TABLE OF AUTHORITIES

(continued)

Pages

Miscellaneous

NUREG/CR-3673, Economic Risks of Nuclear Power Reactor Accidents (Apr. 1984)16

NUREG-1935, State-of-the-Art Reactor Consequence Analyses (SOARCA) Report, Draft
Report for Public Comment (Jan. 2012).....14

Draft Report; Request for Comment, Consequence Study of a Beyond-Design-Basis Earthquake
Affecting the Spent Fuel Pool for a U.S. Mark I Boiling Water Reactor (June 2013).....5

Consequence Study of a Beyond-Design-Basis Earthquake Affecting the Spent Fuel Pool for a
U.S. Mark I Boiling Water Reactor (Oct. 2013) (“SFP Consequence Study”)5

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I. INTRODUCTION

Pursuant to 10 C.F.R. § 2.341(b), Entergy Nuclear Operations, Inc. (“Entergy”) submits this Answer opposing the Petition for Review filed by the State of New York (“New York”) on April 28, 2014.¹ The Petition is the second of two petitions for review filed by New York with respect to Contention NYS-12C (“NYS-12C”).² It seeks review of the Atomic Safety and Licensing Board’s (“Board”) April 1, 2014 Order denying New York’s December 7, 2013 motion to reopen the record and for reconsideration of LBP-13-13, insofar as that Board decision resolved NYS-12C in favor of the Nuclear Regulatory Commission (“NRC” or “Commission”) Staff.³

¹ See State of New York Petition for Review of Atomic Safety and Licensing Board’s April 1, 2014 Decision Denying the State’s Motion to Reopen the Record and for Reconsideration of the Board’s November 27, 2013 Partial Initial Decision Concerning Consolidated Contention NYS-12C (Apr. 28, 2014) (“New York’s April 2014 Petition” or “Petition”), *available at* ADAMS Accession No. ML14118A519.

² On February 14, 2014, New York also filed a petition for review of LBP-13-13. See State of New York Petition for Review of Atomic Safety and Licensing Board Decision LBP-13-13 With Respect to Consolidated Contention NYS-12C (Feb. 14, 2014), *available at* ADAMS Accession No. ML14045A412 (package). Pursuant to the Commission’s Order dated February 28, 2014 (“February 28, 2014 Commission Order”), Entergy and the NRC Staff filed separate answers on April 28, 2014 opposing that petition for review. See Applicant’s Answer Opposing the State of New York’s Petition for Review of the Board’s Partial Initial Decision (LBP-13-13) (Apr. 28, 2014) (“Entergy’s April 2014 Answer”), *available at* ADAMS Accession No. ML14119A004; NRC Staff’s Answer to “State of New York Petition for Review of Atomic Safety and Licensing Board Decision LBP-13-13 With Respect to Consolidated Contention NYS-12C” (Apr. 28, 2014), *available at* ADAMS Accession No. ML14119A001. New York filed its combined reply on May 22, 2014. See State of New York Reply in Support of Petition for Review of Atomic Safety and Licensing Board’s November 27, 2013 Partial Initial Decision Concerning Consolidated Contention NYS-12C (May 22, 2014).

³ See Board Order (Denying New York’s Motion to Reopen the Record; Setting Deadline for New or Amended

The Board’s disposition of NYS-12C on the merits represents the culmination of a long and complex adjudicatory process—some six years in the making—during which New York had ample opportunity to challenge Energy’s severe accident mitigation alternatives (“SAMA”) analysis. As relevant here, the Board found that the decontamination time (“TIMDEC”) values (60 and 120 days) that Entergy applied in its MACCS2-based SAMA analysis are reasonable and appropriate for the Indian Point Energy Center (“IPEC”) site and satisfy the requirements of the National Environmental Policy Act (“NEPA”) and 10 C.F.R. Part 51.⁴

In denying New York’s Motion to Reopen, the Board applied the NRC’s appropriately strict standards for reopening a hearing record and reconsidering a decision, and correctly concluded that New York did not demonstrate that the Staff’s acceptance of Entergy’s TIMDEC values is unreasonable.⁵ The Board also found it unlikely that it would reach a materially different result based on the additional post-hearing information provided by New York.⁶ Dissatisfied with that outcome, New York now alleges that the Board committed factual and legal errors by failing to sufficiently evaluate the purportedly “new” TIMDEC information it submitted after the Board issued LBP-13-13.⁷ New York’s Petition clearly is a last-ditch effort to salvage its rejected SAMA contention and to perpetuate already-protracted litigation on that contention.

For the reasons stated below, the Commission should summarily reject New York’s Petition. As a threshold matter, New York’s Petition is procedurally defective. In its February 28, 2014 Order, the Commission directed New York to file an amended or revised petition for

Contention) (Apr. 1, 2014) (unpublished) (“April 1, 2014 Board Order”); State of New York Motion to Reopen the Record and For Reconsideration on Contention NYS-12C (Dec. 7, 2013) (“New York Motion to Reopen”), available at ADAMS Accession No. ML13341A002 (package); *Entergy Nuclear Operations, Inc.* (Indian Point Nuclear Generating Units 2 & 3), LBP-13-13, 78 NRC ___, slip op. (Nov. 27, 2013).

⁴ See *Indian Point*, LBP-13-13, slip op. at 283-88.

⁵ See April 1, 2014 Board Order at 3.

⁶ See *id.*

⁷ See New York’s April 2014 Petition at 17.

review—not an entirely new petition—in response to the Board’s April 1, 2014 Order. At a minimum, New York should have sought clarification and/or leave from the Commission before filing the instant Petition. New York, in effect, has allotted itself a total of 85 pages to argue and reargue its ever-changing and ever-expanding case on NYS-12C before the Commission.⁸

Furthermore, New York’s Petition should be denied as substantively defective. At issue here is whether the Board materially erred in denying New York’s Motion to Reopen (not the validity of the Board’s merits decision in LBP-13-13 *per se*). For the reasons discussed below, the Board appropriately denied New York’s Motion to Reopen, because it failed to satisfy the applicable requirements in 10 C.F.R. § 2.326 (governing reopening of the record) and § 2.345 (governing reconsideration of a Board decision).

In short, the Board’s April 1, 2014 Order reflects New York’s *own* failure to demonstrate the existence of a significant environmental issue or any other compelling circumstance that would justify a reopening of the record and reconsideration of the Board’s ruling. Consequently, New York’s Petition raises no “substantial question” under Section 2.341(b)(4)—no factual error, no legal error, and no policy question justifying Commission review. The Petition should be denied.

II. STATEMENT OF THE CASE

Entergy’s answer to New York’s petition for review of LBP-13-13 recounts the procedural history of NYS-12C in detail.⁹ For economy’s sake, Entergy incorporates that discussion by reference here. In brief, the Board found in LBP-13-13 that the IPEC SAMA analysis is sufficiently site-specific, and that the decontamination time (TIMDEC) and non-farm area decontamination cost (CDNFRM) values applied in the IPEC SAMA analysis are reasonable and

⁸ See Commission Order (Granting Motion for Enlargement of Page Limitation) (Jan. 29, 2014) (unpublished) (extending page limit for petitions for review of LBP-13-13 from 25 to 60 pages).

⁹ See Entergy’s April 2014 Answer at 3-16.

appropriate for the IPEC site and satisfy the applicable requirements of NEPA and Part 51.¹⁰ The Board reached those conclusions by evaluating the evidence consistent with NEPA’s “rule of reason” and Commission case law applying that rule in the context of a SAMA analysis.¹¹

With regard to the TIMDEC values in particular, the Board observed that in MACCS2, “TIMDEC represents an average time period during which people are temporarily interdicted while decontamination activities are completed to reduce the dose by the specified dose reduction factor.”¹² As such, the Board aptly noted that TIMDEC is not intended to be representative of any specific accident scenario, including a worst-case scenario.¹³ The Board accordingly found that Entergy’s NRC-approved TIMDEC values are reasonable given the legitimate goal of a SAMA analysis, which is to estimate annual average impacts for the entire 50-mile radius study area, and the MACCS2 code’s requirement for a single average decontamination time as an input value.¹⁴

On December 7, 2013, New York moved the Board to reopen the hearing record on Contention NYS-12C to consider purportedly new information presented by New York related to the TIMDEC input parameter, and to reconsider its merits decision on that contention in light of the new information.¹⁵ New York stated that it had learned that the NRC Staff used a single TIMDEC input of 365 days in a MACCS2 analysis of the consequences of a severe accident at a spent fuel pool (“SFP”).¹⁶ It further contended that the Staff’s use of a one-year decontamination period in that analysis (hereinafter referred to as the NRC’s “SFP Consequence Study”¹⁷)

¹⁰ See *Indian Point*, LBP-13-13, slip op. at 293.

¹¹ See *id.* at 292.

¹² *Id.* at 284.

¹³ See *id.*

¹⁴ See *id.* at 287-88.

¹⁵ See generally New York Motion to Reopen.

¹⁶ See *id.* at 1.

¹⁷ The NRC Staff published a draft version of the SFP Consequence Study in June 2013 and sought public comments on

contradicted purported representations by the Staff in this proceeding regarding its use of shorter decontamination times in SAMA analyses for operating reactor license renewal.¹⁸ New York also accused the Staff of failing to disclose the MACCS2 analysis or files for the SFP Consequence Study, and argued that the Motion to Reopen was timely filed because New York did not receive the MACCS2 native format files until November 26, 2013.¹⁹

In separate answers filed on December 23, 2013, Entergy and the NRC Staff both opposed New York's motion on the grounds that it: (1) was untimely filed, (2) relied on information that is irrelevant to the SAMA analysis, (3) failed to raise a significant safety or environmental matter, (4) failed to demonstrate that a materially different result would be likely, and (5) failed to demonstrate the existence of clear and material error in the Board's decision resolving NYS-12C.²⁰ The NRC Staff included an affidavit by Dr. Tina Ghosh, one of the Staff's testifying experts, in which she highlighted and explained the major differences between the SAMA analysis performed for IPEC and the analysis conducted for the SFP Consequence Study.²¹

that document in early July 2013. *See* Draft Report; Request for Comment, Consequence Study of a Beyond-Design-Basis Earthquake Affecting the Spent Fuel Pool for a U.S. Mark I Boiling Water Reactor (June 2013), *available at* ADAMS Accession No. ML13133A132; Draft Report; Request for Comment, Consequence Study of a Beyond-Design-Basis Earthquake Affecting the Spent Fuel Pool for a U.S. Mark I Boiling Water Reactor, 78 Fed. Reg. 39,781 (July 2, 2013). The NRC Staff published the final version of the SFP Consequence Study in October 2013. *See* Consequence Study of a Beyond-Design-Basis Earthquake Affecting the Spent Fuel Pool for a U.S. Mark I Boiling Water Reactor (Oct. 2013) ("SFP Consequence Study") (attached to SECY-13-0112 (Oct. 9, 2013)), *available at* ADAMS Accession No. ML13256A334 (package).

¹⁸ *See* New York Motion to Reopen at 5-6.

¹⁹ *See id.* at 2, 5. New York did not actually request copies of the MACCS2 native format files until September 2013, over one year after the draft SFP Consequence Study was published in June 2012. *See* Declaration of Assistant Attorney General John Sipos, State of New York at 2 (Dec. 6, 2013) (Attachment 1 to New York Motion to Reopen).

²⁰ *See* Entergy's Answer Opposing State of New York Motion to Reopen the Record and for Reconsideration of Contention NYS-12C (Dec. 23, 2013) ("Entergy's December 2013 Answer"), *available at* ADAMS Accession No. ML13357A254; NRC Staff's Response to State of New York Motion to Reopen the Record and for Reconsideration on Contention NYS-12C (Dec. 23, 2013) ("NRC Staff's December 2013 Answer"), *available at* ADAMS Accession No. ML13357A778.

²¹ *See* Affidavit of S. Tina Ghosh in Support of the NRC Staff's Opposition to State of New York Motion to Reopen the Record and for Reconsideration on Contention NYS-12C (Dec. 23, 2013) ("Ghosh Affidavit"), *available at* ADAMS Accession No. ML13357A777.

Pursuant to an extension of time,²² New York filed its petition for review of the Board’s merits ruling on NYS-12C (in LBP-13-13) on February 14, 2014.²³ On February 24, 2014, Entergy moved to hold in abeyance further briefing on New York’s petition for review of LBP-13-13 until such time as the Board ruled on New York’s then-pending Motion to Reopen.²⁴ The Commission granted Entergy’s motion by Order dated February 28, 2014, and stated therein that the time for answers and replies concerning the State’s Petition will run from the date of the Board’s ruling on New York’s reconsideration motion.²⁵

By Order dated April 1, 2014, the Board denied New York’s Motion to Reopen.²⁶ In so doing, the Board noted that the 365-day TIMDEC value applied in the SFP Consequence Study “was utilized as a site specific value for a specific postulated *spent fuel pool* accident,” not a severe *reactor* accident of the type modeled in a SAMA analysis.²⁷ The Board further stated that New York had failed to provide “sufficient information to establish that a different result would have been likely had the Board considered the new information proffered by New York when assessing the reasonableness of the TIMDEC input values accepted by the Staff.”²⁸

²² See Commission Order (Granting Joint Motion for an Extension of Time to File Petitions for Review of LBP-13-13) (Dec. 18, 2013) (unpublished).

²³ See New York’s February 2014 Petition.

²⁴ See Applicant’s Unopposed Motion to Hold Appellate Proceedings on Contention NYS-12C in Abeyance and Parties’ Joint Motion Seeking Time and Page Limit Enlargements for Filings Related to Contentions NYS-8, NYS-35/36, and CW-EC-3A at 1-4 (Feb. 24, 2014), available at ADAMS Accession ML14055A534.

²⁵ See February 28, 2014 Commission Order at 1-2.

²⁶ See April 1, 2014 Board Order at 1-3.

²⁷ *Id.* at 3 (emphasis added).

²⁸ *Id.* at 2. The Board did not address the timeliness of New York’s Motion to Reopen. Both Entergy and the NRC Staff objected to the Motion to Reopen as untimely, because the June 2013 draft version of the SFP Consequences Study—on which New York submitted comments to the NRC—unambiguously stated that the NRC Staff used a decontamination time of “one year” in the SFP Consequence Study. See Entergy’s December 2013 Answer at 7-9; NRC Staff’s December 2013 Answer at 4-8; see also Comment (12) of John Sipos on Behalf of the State of New York, Office of the Attorney General on Consequence Study of a Beyond-Design-Basis Earthquake Affecting the Spent Fuel Pool for a U.S. Mark I Boiling Water Reactor at 3 (Aug. 1, 2013), available at ADAMS Accession No. ML13217A134. Entergy does not waive its previous argument that New York’s Motion to Reopen was untimely filed, in contravention of 10 C.F.R. § 2.326(a)(1).

On April 4, 2014, New York informed the Commission and the parties in writing that it would not amend or withdraw its petition for review of LBP-13-13, but instead would file a separate petition for review of the Board's April 1, 2014 Order pursuant to 10 C.F.R. § 2.341.²⁹ New York filed the instant Petition on April 28, 2014. New York claims that the Board's decision warrants Commission review because it rests on incorrect factual and legal conclusions and overlooks New York evidence that would materially alter the results of the IPEC SAMA analysis.³⁰ Entergy responds to New York's specific claims below and demonstrates that they are patently lacking in merit.

III. STANDARD OF REVIEW

A petition for review is granted only at the discretion of the Commission, giving due weight to the existence of a "substantial question" with respect to the following relevant considerations: (i) a finding of material fact that is "clearly erroneous" or conflicts with a finding as to the same fact in a different proceeding; (ii) a necessary legal conclusion that is without governing precedent or is contrary to established law; (iii) the raising of a substantial and important question of law, policy, or discretion; (iv) the conduct of the proceeding involved a prejudicial procedural error; or (v) the raising of any other consideration which the Commission may deem to be in the public interest.³¹ An appeal that does not point to an error of law or an abuse of discretion by the Board, but simply restates the contention with additional support, will not meet the requirements for a valid appeal.³²

²⁹ See State of New York's Notice Pursuant to the Secretary's February 28, 2014 Order at 1 (Apr. 4, 2014) ("New York's April 4, 2014 Notice"), available at ADAMS Accession No. ML14094A330.

³⁰ See New York's April 2014 Petition at 3, 16-17, 23.

³¹ 10 C.F.R. § 2.341(b)(4); *Private Fuel Storage, L.L.C.* (Indep. Spent Fuel Storage Installation), CLI-03-8, 58 NRC 11, 17 (2003).

³² *Shieldalloy Metallurgical Corp.* (License Amendment Request for Decommissioning of the Newfield, New Jersey Facility), CLI-07-20, 65 NRC 499, 503-05 (2007).

When considering a petition for review, the Commission is free to affirm a Board decision on any ground finding support in the record, whether or not relied on by the Board.³³ The Commission generally will defer to the Board on its fact findings absent a showing that the Board’s findings were “clearly erroneous,” meaning that, in light of the record viewed in its entirety, the findings were not even plausible.³⁴ Where the Board has reviewed an extensive record in detail, the Commission is generally disinclined to upset its findings, particularly on matters involving fact-specific issues or where the affidavits or submissions of experts must be weighed.³⁵ The Commission reviews legal or policy questions *de novo*,³⁶ and will reverse a board’s legal rulings only if they are ““a departure from, or contrary to, established law.””³⁷

IV. THE COMMISSION SHOULD DENY THE PETITION FOR REVIEW

Pursuant to 10 C.F.R. § 2.341, the Commission should deny the Petition. First, the Petition appears to be an unauthorized filing in light of the Commission’s direction in its February 28, 2014 Order. Second, New York has failed to identify any clear error of fact, error of law, procedural error, or abuse of discretion by the Board. As Entergy explained in its answer to New York’s first petition for review, the Board correctly concluded that the IPEC SAMA analysis is sufficiently site-specific, and that the TIMDEC values challenged by New York are reasonable under NEPA.³⁸ In denying New York’s Motion to Reopen, the Board also correctly concluded that none of the purportedly “new” evidence proffered by New York would alter that conclusion.³⁹

³³ *Private Fuel Storage, LLC* (Indep. Spent Fuel Storage Installation), CLI-05-1, 61 NRC 160, 166 (2005) (redacted public version of decision) (citing federal court precedent).

³⁴ *Private Fuel Storage, L.L.C.* (Indep. Spent Fuel Storage Installation), CLI-05-16, 62 NRC 1, 3 (2005).

³⁵ *Hydro Res., Inc.* (P.O. Box 777, Crownpoint, NM 87313), CLI-06-1, 63 NRC 1, 2 (2006).

³⁶ *AmerGen Energy Co.* (Oyster Creek Nuclear Generating Station), CLI-09-7, 69 NRC 235, 259 (2009).

³⁷ *See id.* (citation omitted).

³⁸ *See* Entergy’s April 2014 Answer at 21-33.

³⁹ *See* April 1, 2014 Board Order at 2-3.

New York's Petition presents no reason to question the Board's conclusion, and it certainly does not meet the standards in 10 C.F.R. § 2.341. Denial of the Petition is thus warranted.

A. New York's Submittal of a Second Petition for Review Is Inconsistent with the Commission's February 28, 2014 Order

From a procedural standpoint, New York's Petition contravenes the Commission's specific directive in this proceeding. In its February 28, 2014 Order, the Commission stated:

In the event that New York seeks to *amend or withdraw* its [February 14, 2014] petition as a consequence of the Board's ruling [on New York's Motion to Reopen], it shall file a motion with the Commission within five business days of issuance of the Board's decision. Such a motion may include *a request for additional time to file a revised petition for review*.⁴⁰

On April 4, 2014, following the Board's ruling, New York filed a notice in which it stated that it would "file a separate petition for review of the April 1, 2014 Board order pursuant to 10 C.F.R. §§ 2.341(b)(1), (f)(2)."⁴¹ Thus, rather than seeking clarification and/or leave from the Commission (or consulting with the other parties), New York unilaterally decided that it would file a second, stand-alone petition for review of the Board's April 1, 2014 Order. That action is inconsistent with the Commission's explicit directive and, if permitted to stand, effectively gives New York two petitions for review totaling 85 pages in length (60 pages plus 25 pages) to brief matters related to the Board's merits decision on one contention (NYS-12C) (in addition to the associated replies). This fact warrants denial of the Petition on procedural and fairness grounds.⁴²

⁴⁰ February 28, 2014 Commission Order at 2 (emphasis added).

⁴¹ New York's April 4, 2014 Notice at 1.

⁴² New York contends that its Petition is reviewable under 10 C.F.R. § 2.341(b)(1) because it is "inextricably linked to, and part of, the Partial Initial Decision," and that "administrative economy" supports simultaneous Commission review of LBP-13-13 and the Board's April 1, 2014 Order. New York's April 2014 Petition at 12. Alternatively, New York argues that its Petition satisfies the interlocutory review standards in 10 C.F.R. § 2.341(f)(2). *See id.* at 13-15. Entergy disagrees with the latter argument; *i.e.*, that the Board's April 1, 2014 Order threatens New York with immediate and serious irreparable impact, or affects the basic structure of the proceeding in a pervasive or unusual manner. Nevertheless, Entergy does not oppose the Commission's consolidated review of both New York petitions for review given their common nexus (*i.e.*, the Board's merits decision on NYS-12C). Entergy agrees that such as action would promote administrative economy and is well within the Commission's inherent supervisory authority over NRC adjudications. Indeed, for similar reasons, Entergy recently asked the Commission to take review of the Board's

B. The Board Did Not Overlook Any Evidence That Possibly Could Have Resulted in a Materially Different Outcome With Respect to Its Resolution of NYS-12C

Turning to the substance of the Petition, New York contends that the Board erred by overlooking New York evidence that, if properly considered, would materially alter the results of the IPEC SAMA analysis.⁴³ According to New York, that evidence includes: (1) evidence showing that the severe accident analyzed in the SFP Consequence Study using a 365-day TIMDEC value is within the range of accidents modeled in the IPEC SAMA analysis; (2) New York's "TIMDEC/Worker" calculations; and (3) New York's "proof of materiality."⁴⁴ In so arguing, New York further claims that Board misapplied the relevant legal standards.⁴⁵ None of the claimed errors has support in fact or in law.

1. The 365-Day TIMDEC Value Applied in the SFP Consequence Study Has No Relevance to the IPEC SAMA Analysis or the Board's Decision on NYS-12C

New York claims that its Motion to Reopen identified evidence showing that the use of a 365-day TIMDEC value for the four most severe accidents that Entergy modeled would almost double the offsite economic cost risk ("OECR"), as calculated in the IPEC SAMA analysis.⁴⁶ That change, it further claims, would render one additional SAMA candidate cost-beneficial, thereby "significantly and materially altering the SAMA analysis."⁴⁷

summary disposition ruling (LBP-11-17) on SAMA Contention NYS-35/36. *See* Applicant's Petition for Review of Board Decisions Regarding Contentions NYS-8 (Electrical Transformers), CW-EC-3A (Environmental Justice), and NYS-35/36 (SAMA Cost Estimates) at 2-3, 50-51 (Feb. 14, 2014), *available at* ADAMS Accession No. ML14045A332. Ironically, New York opposed that request on the grounds that the Board's ruling is not ripe for review. *See* State of New York's Answer to Entergy and NRC Staff Petitions for Review of Atomic Licensing Board Decisions [] at 45-47 (Mar. 25, 2014), *available at* ADAMS Accession No. ML14085A001.

⁴³ *See* New York's April 2014 Petition at 16.

⁴⁴ *See id.* at 16-23.

⁴⁵ *See id.* at 23-24.

⁴⁶ *See id.* at 2, 6, 16, 21.

⁴⁷ *Id.* at 16; *see also id.* n. 46 (claiming that "Entergy previously acknowledged that only an 11% increase in costs is needed to render another SAMA (IP2 SAMA 025) cost-beneficial").

In support, New York cites the Staff's use of a 365-day TIMDEC value in its SFP Consequence Study.⁴⁸ It suggests that, by using that value in the study, the Staff "changed course" and "abandoned its practice" of using the 60-day and 120-day values applied in the IPEC and other SAMA analyses.⁴⁹ However, New York's argument is entirely misplaced, because it ignores the critical distinction between a SFP accident (as postulated in the SFP Consequence Study) and a severe reactor accident (as postulated in the IPEC SAMA analysis).

The SFP Consequence Study is a product of the NRC's ongoing Fukushima-related review. It is intended to help the NRC evaluate potential risk reductions associated with the accelerated transfer of spent fuel from the SFP to dry cask storage.⁵⁰ Toward that end, the study provides consequence estimates for a hypothetical SFP accident initiated by a beyond-design-basis seismic event at a reference plant (Peach Bottom) for both a fully loaded (high-density) and minimally loaded (low-density) SFP.⁵¹ The NRC Staff emphasized that the narrow scope of its consequence analysis was to study a specific postulated accident scenario (*i.e.*, a beyond-design-basis earthquake leading to failure of the SFP liner, drainage of the pool, and initiation of a fire involving the Zircaloy cladding of the spent fuel) at a specific spent fuel pool.⁵²

As was obvious to the Board, the study has nothing to do with severe reactor accidents, particularly as such accidents are modeled within the well-established framework of a probabilistic

⁴⁸ See *id.* at 2-4, 8, 10-11, 16-21.

⁴⁹ See *id.* at 2, 8.

⁵⁰ See SFP Consequence Study at v.

⁵¹ See *id.*

⁵² See, *e.g.*, SFP Consequence Study at 19 ("This study represents a limited-scope consequence study as opposed to a probabilistic risk assessment."). Moreover, in its November 18, 2013 cover letter forwarding the requested MACCS2 computer files to New York, the NRC Staff indicated that the enclosed MACCS2 calculations supported analysis of a highly unlikely SFP accident at a Boiling Water Reactor Mark I plant where the SFP is located outside the containment structure and generally contains several times the source term found in an operating reactor. See Attachment 5 to New York Motion to Reopen.

SAMA analysis.⁵³ Specifically, the Board noted that the 365-day TIMDEC value used in the SFP Consequence Study was “for a specific postulated *spent fuel pool* accident.”⁵⁴ The Board’s conclusion is legally and factually sound.⁵⁵

As a legal matter, the Commission repeatedly has emphasized that the reference to SAMAs in 10 C.F.R. Part 51 applies to reactor accidents and *not* spent fuel pool accidents.⁵⁶ In *Turkey Point*, for example, the Commission noted that the NRC customarily has studied reactor accidents and spent fuel accidents separately and, for the latter, concluded that the risk of accidents is

⁵³ As the Board noted in LBP-13-13, a SAMA analysis “examines the mean annual consequences of numerous postulated [reactor] accident scenarios, spanning a spectrum of potential initiating events, accident sequences, and severity of consequences.” *Indian Point*, LBP-13-13, slip op. at 283. It is a site-specific environmental mitigation alternatives analysis performed under NEPA to identify additional mitigation measures (e.g., procedure or hardware changes) that may be cost-beneficial to implement at a *nuclear power plant* to further reduce the already low risk of a severe accident. *NextEra Energy Seabrook, LLC* (Seabrook Station, Unit 1), CLI-12-5, 75 NRC 301, 322 (2012). The SFP Consequence Study, in contrast, was performed to determine whether expediting movement of spent fuel from the SFP at a reference plant might provide a substantial safety enhancement, and to inform the NRC’s “broader regulatory analysis of the spent fuel pools at all U.S. operating nuclear reactors as part of its Japan Lessons-learned Tier 3 plan.” SFP Consequence Study at iv.

⁵⁴ April 1, 2014 Board Order at 3 (emphasis added).

⁵⁵ Entergy respectfully disagrees with the Board on one point, albeit it is one that does not affect the Board’s denial of New York’s Motion to Reopen. Specifically, in rejecting New York’s Motion to Reopen for failure to demonstrate any likelihood of a materially different result, the Board stated that “New York’s motion addressed a significant issue.” April 1, 2014 Board Order at 2. Entergy refers the Commission to its answer opposing New York’s Motion to Reopen. See Entergy’s December 2013 Answer at 9-12. In short, the Commission has indicated that the standard for when an issue is “significant” in the context of reopening a closed record is the same as the standard for when supplementation of an environmental impact statement is required—there must be new and significant information that will paint “a seriously different picture of the environmental impact of the proposed project from what was previously envisioned.” *Hydro Res., Inc.* (2929 Coors Road, Suite 101, Albuquerque, NM 87120), CLI-99-22, 50 NRC 3, 14 (1999) (citation omitted). New York presented no such information. Instead, it merely claimed that the Motion to Reopen concerns an “important” issue because the TIMDEC input to the MACCS2 code played an important role in the IPEC SAMA analysis. New York Motion to Reopen at 5.

⁵⁶ See *Fla. Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 & 4), CLI-01-17, 54 NRC 3, 21-22 (2001) (holding that 10 C.F.R. Part 51’s reference to “severe accident mitigation alternatives” applies to nuclear reactor accidents, not spent fuel storage accidents and rejecting a contention requesting consideration of mitigation alternatives on the issue of onsite fuel storage at the license renewal stage); see also *Entergy Nuclear Generation Co. and Entergy Nuclear Operations, Inc.* (Pilgrim Nuclear Power Station), CLI-07-3, 65 NRC 13, 21 (2007), *aff’d on other grounds sub nom., Mass. v. U.S.*, 522 F.3d 115 (1st Cir. 2008) (“As we explained in *Turkey Point*, it is not necessary to discuss mitigation alternatives when the [Generic Environmental Impact Statement] has already determined that, due to existing regulatory requirements, the probability of a spent fuel pool accident causing significant harm is remote.”); *Entergy Nuclear Generation Co. and Entergy Nuclear Operations, Inc.* (Pilgrim Nuclear Power Station), CLI-10-11, 71 NRC 287, 312 (2010), *petition for recons. denied*, CLI-10-15, 71 NRC 479 (2010) (stating that claim that “SAMA analysis is deficient for failing to address potential spent fuel pool accidents” falls “beyond the scope of NRC SAMA analysis and impermissibly challenges [Commission] regulations”); see also *FirstEnergy Nuclear Operating Co.* (Davis-Besse Nuclear Power Station, Unit 1), LBP-11-13, 73 NRC 534, 570 (2011), *rev’d on other grounds*, CLI-12-8, 75 NRC 393 (2012) (rejecting arguments regarding spent fuel risks as outside the scope of SAMA analyses).

acceptably small.⁵⁷ It further explained that accidents involving SFPs or dry casks are more amenable to generic consideration, whereas the events that could lead to a severe reactor accident vary significantly from plant to plant.⁵⁸ For that reason alone, the TIMDEC value applied in the SFP Consequence Study is not relevant to the IPEC SAMA analysis.⁵⁹

As a technical matter, the NRC Staff reinforced this same fact through Dr. Ghosh's expert affidavit. Dr. Ghosh explained the Staff's rationale for applying a 365-day TIMDEC value in the SFP Consequence Study as well as the disparate objectives of that study and a SAMA analysis (which makes use of Level-3 probabilistic risk assessment, or PRA):

The Spent Fuel Pool Study focused on a single challenging accident scenario: a severe accident from an example spent-fuel pool initiated by an extreme seismic event, with an estimated frequency of occurrence of 10^{-7} per reactor year. The study calculated source terms (the amount of radioactive materials released) and total areas of contaminated land (where contamination exceeds protective action levels) for this challenging low-frequency scenario. Given the occurrence of the postulated accident, the calculated source terms and contaminated land areas were significantly larger than those calculated in typical reactor accident probabilistic risk assessments (PRAs). Because of the large magnitude of contaminated land areas, the team chose a TIMDEC of one year, which is longer than what has been chosen historically in most reactor accident PRAs. *It is reasonable to choose a longer time (one year) than has been used historically for reactor PRAs, given the significantly larger source term and contaminated land areas calculated, compared to the spectrum projected from reactor PRAs.*⁶⁰

Thus, it is quite clear that the TIMDEC value used in the SFP Consequence Study has no bearing

⁵⁷ *Turkey Point*, CLI-01-17, 54 NRC at 22.

⁵⁸ *Id.*

⁵⁹ New York again argues that Entergy and the NRC Staff have acted in derogation of the Third Circuit's 1989 *Limerick* decision, purportedly by not performing a site-specific analysis. The Board correctly rejected that argument for the reasons discussed in Entergy's answer to New York's first petition for review.

⁶⁰ Ghosh Affidavit at 2 (emphasis added). Contrary to New York's claim, there is no "conflict" between Dr. Ghosh's hearing testimony and affidavit. New York April 2014 Petition at 22. In her affidavit, Dr. Ghosh distinguished between "typical" reactor PRAs and the NRC's non-reactor/non-PRA consequence study for a SFP pool accident. She did not state in her affidavit that license renewal SAMA analyses or other PRAs used TIMDEC values other than 60 and 120 days, as New York wrongly suggests.

on the IPEC SAMA analysis or the Board’s decision on NYS-12C.⁶¹

In its Petition, New York contends that Dr. Ghosh should have acknowledged that “the affected population density should also inform the selection of TIMDEC.”⁶² That argument lacks merit and seeks to obfuscate Dr. Ghosh’s principal point: the SFP Consequence Study focused on a *single, low-probability SFP accident* scenario initiated by a very challenging seismic event. For that reason, it has no relevance to a SAMA analysis, which considers a *spectrum of reactor severe accident scenarios*, the most probable of which do not result in large areas of contaminated land. Any discussion of population density is irrelevant in this context.

2. New York’s Flawed TIMDEC/Worker Calculations Focus on the Most Severe Accidents Without Regard to Their Probabilities And Thus Ignore the Probabilistic Nature of a SAMA Analysis

New York’s argument that the Board erred by overlooking its “TIMDEC/Worker” calculations (which its consultant prepared in response to Dr. Ghosh’s affidavit) also lacks merit. Citing a chart on page 19 of its Petition, New York purports to show that the number of workers required to decontaminate is “much higher” for the IPEC SAMA analysis than it is for the SFP Consequence Study.⁶³ In New York’s view, “[t]his means that, if 365 days is appropriate for the Consequence Study, at least 365 days should be used to for the Indian Point SAMA analysis.”⁶⁴

⁶¹ As Entergy’s expert witnesses testified, the NRC’s State-of-the-Art Reactor Consequence Analyses (“SOARCA”) project represents a more appropriate analogue or point of comparison. The NRC initiated the SOARCA project in 2006 to develop revised best estimates of the offsite radiological health consequences of *severe reactor accidents* by including significant plant improvements and updates not reflected in earlier NRC assessments. See Testimony of Entergy Witness Lori Potts, Kevin O’Kula and Grant Teagarden on Consolidated Contention NYS-12C (Severe Accident Mitigation Alternatives Analysis) at 26 (A41) (Mar. 30, 2012) (ENT000450). The SOARCA study used the MACCS2 code and applied the same dose reduction factors (3 and 15) and corresponding TIMDEC values (60 and 120 days) as used in the IPEC SAMA analysis. See *id.* at 38 (A51), 62 (A78), 72-73 (A95), 86 (A106). See also NUREG-1935, State-of-the-Art Reactor Consequence Analyses (SOARCA) Report, Draft Report for Public Comment at 63 (Jan. 2012) (ENT000455) (“Values from NUREG-1150 provide the basis for decontamination parameters, which consist of two levels of decontamination, just as in NUREG-1150.”).

⁶² New York April 2014 Petition at 18.

⁶³ *Id.* at 19-20.

⁶⁴ *Id.* at 20.

New York's argument is spurious. In fact, it is merely a reformulation of the rejected argument that the SAMA analysis should focus on the most severe release category; *i.e.*, the "Early High" release category singled out by Dr. Lemay both in his hearing testimony⁶⁵ and in the aforementioned chart.⁶⁶ New York acknowledges as much in stating that "Dr. Lemay created a chart showing the effect of using the 365 day TIMDEC for *only the most severe accidents, i.e.*, the four most 'challenging accident scenarios' that Entergy chose to model for Indian Point."⁶⁷

But as Entergy's experts explained, Dr. Lemay's focus on the most severe end of the release spectrum in his decontamination worker calculations is a worst-case assumption and counter to the goals of a best-estimate SAMA analysis.⁶⁸ As a probabilistic analysis, a SAMA evaluation considers a broad spectrum of accident scenarios and release categories, including those that involve minimal or no failure of the containment (and thus lower accident source terms), and their estimated frequencies.⁶⁹ In this regard, the Board correctly concluded that "to be able to provide a reliable and reasonable analysis, the decontamination times must represent *all* the modeled severe accidents including ones that require little decontamination."⁷⁰ New York never alleged that 365 days represents an average time to complete decontamination efforts over a

⁶⁵ See Official Transcript of Proceedings, Indian Point Nuclear Generating units 2 and 3 at 2196:21-24 (Lemay) (Oct. 18, 2012) ("Oct. 18, 2012 Tr.").

⁶⁶ New York again states that, using Entergy's TIMDEC values, Dr. Lemay determined that about 1.5 million workers are required to decontaminate following an EARLY HIGH accident at Indian Point. New York April 2014 Petition at 21. Entergy's experts fully refuted that argument. As they explained, each release category has an associated frequency, with the lower release categories making up a significant portion of the overall release frequency. See Oct. 18, 2012 Tr. at 2190:23-2191:2 (Teagarden). Accounting for the full spectrum of release categories and frequencies considered in the IPEC SAMA analysis, Entergy's experts estimated that the "average" number of decontamination workers would be about 60,000 to 80,000 people, the number of people "that would fill Yankee Stadium on any given Sunday." *Id.* at 2191:2-6 (Teagarden).

⁶⁷ New York April 2014 Petition at 21 (emphasis added).

⁶⁸ See Oct. 18, 2012 Tr. at 2184:23-24 (Lemay).

⁶⁹ See *id.* at 2153:24-2155:3 (O'Kula); NRC Staff Testimony of Nathan E. Bixler, S. Tina Ghosh, Joseph A. Jones and Donald G. Harrison Concerning NYS' Contention NYS12/16 at 90 (A81) (Mar. 30, 2012) (NRC000041) ("NRC Staff Testimony").

⁷⁰ *Indian Point*, LBP-13-13, slip op. at 287 (citing NRC Staff Testimony at 90 (A81) (NRC000041)) (emphasis added).

spectrum of postulated reactor accident scenarios (nor could it given the SFP Consequence Study's singular focus on a specific SFP accident scenario).⁷¹

Relatedly, New York also states that because NUREG/CR-3673 (from which the 60-day and 120-day TIMDEC values were first derived) could not have anticipated the lengthy offsite decontamination efforts at Fukushima and Chernobyl, it cannot provide a reasonable or rational basis for TIMDEC input values for the site-specific severe accident analysis.⁷² That argument is invalid for the same reasons stated above; *i.e.*, it focuses on single, extreme accident scenarios. The Board properly rejected that argument, and reasonably concluded that the TIMDEC values used in Entergy's SAMA analysis have an established technical basis that can be traced back to NUREG/CR-3673.⁷³

3. Contrary to Its Claims, New York Has Not Demonstrated That Any of Its Additional Evidence Would Materially Affect the SAMA Analysis Results

New York also incorrectly argues that the Board erred by ignoring its “proof of materiality.”⁷⁴ First, that argument presupposes the validity of New York's first two arguments, which, as explained above, are groundless. Specifically, New York asserts that use of a 365-day

⁷¹ New York also states that “1.5 million workers would need to promptly travel to contaminated areas within the New York City metropolitan area, quickly start and complete decontamination work, transport the contaminated materials and soils away from the affected areas, and dispose of the waste at a permitted disposal site.” New York April 2014 Petition at 20. It further states that “[t]hey would require food and lodging while they performed the decontamination work.” *Id.* New York claims that “[t]his convenient and unreasonable assumption would be remedied by a longer TIMDEC to decrease the number of workers required.” *Id.* None of these statements is supported by any citation to the record or expert affidavits and, accordingly, should be rejected as unsupported factual statements by counsel.

⁷² New York April 2014 Petition at 7-8.

⁷³ See *Indian Point*, LBP-13-13, slip op. at 285-86. On this point, New York also claims that NUREG/CR-3673 did not consider accident scenarios involving containment failure and release of radiation to the environment. New York April 2014 Petition at 23. That is factually incorrect. As NRC Staff witnesses explained, NUREG/CR-3673 identified an average effort required to restore habitability to an area after the most severe type of reactor accident; *i.e.*, an “SST1” accident source term as defined in the 1982 Sandia Siting Study (ENT000453). NRC Staff Testimony at 90 (A81) (NRC000041) (citing NUREG/CR-3673, Economic Risks of Nuclear Power Reactor Accidents at 6-24 to 6-25 (Apr. 1984) (NRC000058) (“NUREG/CR-3673”). NUREG/CR-3673 states that the SST1 – SST3 accident source terms were defined in the 1982 Sandia Siting Study to represent the range of potential release of radioactive materials resulting from core-melt sequences with containment failure. The SST1 release category included accidents that result in *containment failure* due to rapid overpressurization and release of a large fraction of the core inventory to the environment. NUREG/CR-3673 at 2-10 (NRC000058).

⁷⁴ New York April 2014 Petition at 21.

TIMDEC value for the four most severe accidents that Entergy modeled would almost double the OECR.⁷⁵ It further claims that “Entergy acknowledges that an 11% increase in costs would cause another SAMA candidate measure to become cost effective.”⁷⁶

New York’s “materiality” argument is seriously flawed. As the NRC Staff previously noted, because that argument was advanced only by counsel for New York (not by any of its technical consultants), it constitutes unreliable lay opinion.⁷⁷ In its Petition, New York again fails to cite any testimony or evidence from its witnesses in support of its materiality argument. Instead, it cites Entergy exhibits submitted in connection with a different contention, NYS-16B.⁷⁸

As the NRC Staff further noted, New York incorrectly equates the alleged effects on the OECR with a direct and commensurate change in the potential benefit of a SAMA.⁷⁹ Upon cross-examination by New York counsel, the Staff’s and Entergy’s witnesses explained that changes to the OECR are not directly applicable to the net benefit, because it would be expected that OECR would change for both the unmitigated and mitigated accident, and each mitigation measure would interact differently with the increased OECR.⁸⁰ In Mr. Teagarden’s words, “each SAMA candidate has its own unique footprint of how it impacts the risk.”⁸¹ That is, the OECR and

⁷⁵ See *id.* at 2, 6, 16, 21.

⁷⁶ *Id.* at 6.

⁷⁷ See NRC Staff’s December 2013 Answer at 10-11 (“In his declaration, filed as an attorney in the proceeding rather than as an expert, Mr. Sipos opines that doubling the [OECR] would render IP2 SAMA 025 potentially cost-beneficial and cause existing potentially cost-beneficial SAMAs to be more cost beneficial. Mr. Sipos, however, is not qualified to draw any conclusions or render any opinions with respect to the impact of changing inputs used in the MACCS2 code on the whether a particular SAMA would become potentially cost-beneficial or already identified potentially cost-beneficial SAMAs might become more cost beneficial.”).

⁷⁸ See New York’s April 2014 Petition at 6, 16.

⁷⁹ See NRC Staff’s December 2013 Answer at 11.

⁸⁰ See *id.* (citing Oct. 18, 2012 Tr. at 2333, 2525-28; NRC Staff’s Reply to State of New York’s Proposed Findings of Fact and Conclusions of Law for Contention NYS-12/12A/12B/12C (“NYS-12C”) at 17-18 (May 3, 2013), available at ADAMS Accession No. ML13123A352).

⁸¹ Official Transcript of Proceedings, Indian Point Nuclear Generating Units 2 and 3 at 2527:9-11 (Oct. 22, 2012) (Mr. Teagarden); see also *id.* at 2527:19-21 (Oct. 22, 2012) (Mr. Teagarden) (“[I]t’s depend[e]nt upon how the risk is being increased, and how that relates to the mitigation that that SAMA candidate is providing.”). Furthermore, in addition to

Population Dose Risk (“PDR”) reduction benefits vary for different SAMA candidates.⁸² Thus, each SAMA candidate would need to be evaluated to explicitly calculate the benefit afforded by that SAMA candidate in the event of an increased OECR.⁸³ New York’s counsel has certainly not done that analysis.

Additionally, insofar as New York claims that Entergy and Staff underestimated the costs of a severe accident at IPEC, it is wrong again. New York ignores the significant conservatisms undergirding the IPEC SAMA analysis, as discussed by Entergy’s and the Staff’s witnesses in their testimony. Such conservatisms include, for example: (1) Entergy’s use of an analysis uncertainties multiplier on the internal benefit quantification that is based on the ratio of the 95th percentile core damage frequency (“CDF”) to the mean or point estimate CDF;⁸⁴ (2) a deposition velocity that results in greater radionuclide deposition within the 50-mile SAMA analysis region;⁸⁵ (3) a conservatively-estimated projected population for the year 2035, which is the last year of the Indian Point Unit 3 (“IP3”) period of extended operation and two years after the end of the Indian Point Unit 2 (“IP2”) period of extended operation;⁸⁶ (4) a “no-evacuation” assumption, which

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.

⁸² See Letter from Fred Dacimo, Vice President, Entergy, to NRC, License Renewal Application – SAMA Reanalysis Using Alternative Meteorological Tower Data Indian Point Nuclear Generating Unit Nos. 2 & 3 Docket Nos. 50-247 and 50-286 License Nos. DPR-26 and DPR-64, Attach 1 at 10-28 (Dec. 11, 2009) (ENT000009) (“NL-09-165”).

⁸³ Oct. 18, 2012 Tr. at 2527:9-12. Furthermore, as Dr. Ghosh explained, SAMA analysis is done on a per SAMA candidate basis, and many of the SAMA candidates are acting on the same accident sequences. Oct. 18, 2012 Tr. at 2164:24-2165:1 (“There are multiple SAMAs that are already identified to mitigate the same types of accidents.”); *id.* at 2223:11-21 (Ghosh). Therefore, as the lower-cost alternatives for mitigating the dominant accident sequences are implemented, the baseline risk, as recalculated, is reduced. *Id.* at 2165:21-2166:2 (Ghosh). This reduces the likelihood that other SAMA candidates acting on the same accident sequences will remain, or become, potentially cost-beneficial. *Id.* at 2224:22-2225:2 (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.”).

⁸⁴ See NRC Staff Testimony at 22 (A14), 93 (A84) (NRC00041).

⁸⁵ See *id.* at 50 (A42-43) (NRC00041).

⁸⁶ See Entergy Testimony at 48 (A65) (ENT000450); Official Transcript of Proceedings, Indian Point Nuclear Generating Units 2 and 3 at 1963:5-9 (Teagarden) (Oct. 17, 2012) (“Oct. 17, 2012 Tr.”) (“[T]he industry guidance document, NEI

overestimates doses incurred in the early phase of potential accidents;⁸⁷ (5) two decontamination factors instead of the three permitted by MACCS2;⁸⁸ and (6) the results of a sensitivity case for lost tourism and business in the base case analysis.⁸⁹

Those conservatisms are manifest in the final SAMA analysis cost-benefit results. As Dr. Ghosh explained at the hearing, the theoretical benefit of actually implementing all of the IP2 and IP3 SAMAs identified as potentially cost-beneficial would exceed the maximum attainable benefit (*i.e.*, eliminate the baseline risks of plant operation) for IP2 and IP3, and, in the case of IP2, eliminate the baseline risks twice over.⁹⁰ Dr. Ghosh's testimony supports the Board's conclusion that the IPEC SAMA analysis is reasonable under NEPA standards, and further undercuts New York's "materiality" arguments in its Motion to Reopen and related Petition for Review.

For all of the above reasons, there is no support for New York's claim that the Board erred by overlooking evidence that would have materially altered the results of the IPEC SAMA analysis or the Board's decision on NYS-12C. Indeed, given New York's clear failure to submit such evidence in the first place, there was no such evidence to "overlook."

C. The Board Correctly Applied the Relevant Legal Standards in Denying New York's Motion to Reopen the Record and For Reconsideration of LBP-13-13

1. The Board Correctly Applied the Commission's Standards for Reopening a Closed Evidentiary Record

The Board's denial of New York's request to reopen the hearing record is legally correct.

05-01, specifies that economic impacts should be baselined to the year of the analysis which is [2005]. Population is projected to a further date, 2035.").

⁸⁷ Entergy Testimony at 35 (A49) (ENT000450) (citing Generic Environmental Impact Statement for License Renewal of Nuclear Plants, Supp. 38, Vol. 1, Final Report, App. G at G-21 (Dec. 2010) (NYS00133I)).

⁸⁸ NRC Staff Testimony at 41 (A36) (NRC000041). By using only two DFs, the IPEC SAMA analysis provides a level of conservatism, because for any area where a DF of 3 is not sufficient, the model jumps to a much higher DF of 15 (which costs much more to implement than a DF of 3). *Id.* See also Oct. 17, 2012 Tr. at 1988:20-89:8 (Teagarden).

⁸⁹ Entergy Testimony at 124-25 (A153) (ENT000450).

⁹⁰ Oct. 18, 2012 Tr. at 2163:10-2166:8 (Ghosh).

As the Board noted, the movant must show that: (1) its motion is timely; (2) its motion addresses a significant safety or environmental issue; and (3) a materially different result would be or would have been likely had the newly-proffered evidence been considered initially.⁹¹ This “stiff test” imposes on the movant an “elevated burden” to lay a proper foundation for its claim based on relevant, material, and reliable evidence.⁹²

For the reasons stated above, the Board correctly concluded that New York failed to submit sufficient evidence to show that the Staff’s acceptance of Entergy’s TIMDEC input values was unreasonable under NEPA, or that the Board would reach a materially different decision based on New York’s additional information. In fact, given New York’s failure to submit *any* relevant, material, or reliable evidence in support of its Motion to Reopen, the Board’s decision was hardly a close call. New York far fell short of meeting the elevated burden that applies here.

2. The Board Correctly Applied the Commission’s Standards for Reconsideration of a Final Decision

The Board’s application of the Commission’s reconsideration standard also is legally sound. As the Board correctly noted, a party seeking reconsideration of a Board decision bears a similarly high burden.⁹³ It “must demonstrate a compelling circumstance, such as the existence of a clear and material error in a decision, which could not have been reasonably anticipated, which renders the decision invalid,”⁹⁴ and which rises to the level of “manifest injustice.”⁹⁵ The

⁹¹ April 1, 2014 Board Order at 2 (citing 10 C.F.R. § 2.326(a)).

⁹² *Private Fuel Storage, L.L.C.* (Indep. Spent Fuel Storage Installation), CLI-06-03, 63 NRC 19, 25 (2006); *AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), CLI-08-28, 68 NRC 658, 668-669 (2008); *Pac. Gas & Elec. Co.* (Diablo Canyon Nuclear Power Plant, Units 1 & 2), ALAB-775, 19 NRC 1361, 1366-67 (1984); *see also* Criteria for Reopening Records in Formal Licensing Proceedings, 51 Fed. Reg. 19,535, 19,539 (May 30, 1986) (“The purpose of this rule is . . . to ensure that, once a record has been closed and all timely-raised issues have been resolved, finality will attach to the hearing process. Otherwise it is doubtful whether a proceeding could ever be completed.”).

⁹³ April 1, 2014 Board Order at 2.

⁹⁴ *Id.* (citing 10 C.F.R. § 2.345(b)).

⁹⁵ *Id.* (citing Changes to Adjudicatory Process, 69 Fed. Reg. 2182, 2207 (Jan. 14, 2004)).

Commission thus generally disfavors motions for reconsideration premised on new evidence rather than errors in the existing record.⁹⁶

The fundamental question here is whether the TIMDEC inputs to the IPEC SAMA analysis are reasonable under NEPA. In LBP-13-13, the Board determined that they are reasonable based on a preponderance of the evidence.⁹⁷ In its April 1, 2014 Order, the Board found that New York had not provided sufficient—much less compelling—information to demonstrate a clear and material error in the Board’s decision that might warrant reconsideration.⁹⁸ Indeed, the additional information underlying New York’s reconsideration request is not even germane to the Board’s findings and determinations on NYS-12C. As explained above, the SFP Consequence Study concerns a SFP accident, not a severe reactor accident as analyzed in a SAMA analysis.

3. The Board’s Decision Is Fully Consistent With Controlling NEPA Principles and Commission Precedent Regarding SAMA Analyses

Finally, the Board’s decision is fully consistent with settled NEPA principles and Commission precedent applying those principles. Like other NEPA evaluations, the SAMA analysis is governed by a rule of reason.⁹⁹ As the Board correctly noted in LBP-13-13, the “proper question is not whether there are plausible alternative choices for use in the analysis, *but whether*

⁹⁶ See, e.g., *Consumers Energy Co., et al.* (Palisades Nuclear Power Plant), CLI-07-22, 65 NRC 525, 527 (2007) (citing *Pac. Gas & Elec. Co.* (Diablo Canyon Power Plant Indep. Spent Fuel Storage Installation), CLI-06-27, 64 NRC 399, 402 (2006)); *Tenn. Valley Auth.* (Hartsville Nuclear Plant Units 1A, 2A, 1B & 2B), ALAB-418, 6 NRC 1, 2 (1977); *Dominion Nuclear Conn., Inc.* (Millstone Nuclear Power Station, Units 2 & 3), LBP-04-22, 60 NRC 379, 380-81, *aff’d*, CLI-04-36, 60 NRC 631, 641, 645 (2004).

⁹⁷ See *Indian Point*, LBP-13-13, slip op. at 283-88.

⁹⁸ See April 1, 2014 Board Order at 2-3. The Commission has rejected reconsideration requests for lack of basis where, as in this case, new arguments do not render the earlier decision invalid. See, e.g., *Pilgrim*, CLI-10-15, 71 NRC at 481, 482 (denying motion for reconsideration of the Commission’s affirmance of a board ruling on summary disposition because the issues raised in petitioner’s motion for reconsideration were outside the scope of the originally admitted SAMA contention); *State of Alaska Dept. of Transp. and Pub. Facilities* (Confirmatory Order Modifying License), CLI-04-38, 60 NRC 652, 654 (2004) (denying motion for reconsideration where alleged factual error was not material to the Commission’s decision reversing grant of movant’s intervention petition on standing grounds).

⁹⁹ *Entergy Nuclear Generation Co. and Entergy Nuclear Operations, Inc.* (Pilgrim Nuclear Power Station), CLI-12-15, 75 NRC 704, 724 (2012) (citations omitted).

the analysis that was done is reasonable under NEPA.”¹⁰⁰ The mere existence of alternate inputs, as New York posits here, does not show that the original inputs used were unreasonable.¹⁰¹ Otherwise, “SAMA adjudications would prove endless if hearings were triggered merely by suggested alternative inputs and methodologies that conceivably could alter the cost-benefit conclusions.”¹⁰² This concept goes to the heart of New York’s asserted “proof of materiality.”

Contrary to this controlling precedent, New York has not demonstrated that the TIMDEC inputs to the IPEC SAMA analysis are unreasonable, either via its case in chief or its Motion to Reopen. Regarding the latter, New York provided no support in its Motion to Reopen or the associated affidavits to indicate that the 365-day value used in the NRC’s SFP Consequence Study would be more accurate or reasonable for purposes of the IPEC SAMA analysis. Nor did it identify any statements in that study that suggest that Entergy’s TIMDEC values (as derived from NUREG-1150) are no longer appropriate for use in a SAMA analysis. New York’s Petition, which cannot cure those deficiencies, thus provides no reason to revisit either the Board’s decision in LBP-13-13 or its April 1, 2014 Order denying reconsideration.

New York also continues to ignore other fundamental precepts that are firmly established by Commission case law. The SAMA analysis “examines a spectrum of hypothetical accident scenarios and under NRC practice utilizes the mean value of population dose risk and offsite economic costs.”¹⁰³ Further, it is a *probabilistic* risk assessment, “which means that the

¹⁰⁰ *Indian Point*, LBP-13-13, slip op. at 265 (quoting *Seabrook*, CLI-12-5, 75 NRC at 323) (emphasis added).

¹⁰¹ *See Seabrook*, CLI-12-5, 75 NRC at 323.

¹⁰² *Id.* As the Commission further observed in *Seabrook*: “A contention proposing alternative inputs or methodologies must present some factual or expert basis for why the proposed changes in the analysis are warranted (*e.g.*, why the inputs or methodology used is unreasonable, and the proposed changes or methodology would be more appropriate).” *Id.* at 323-24.

¹⁰³ *Pilgrim*, CLI-10-11, 71 NRC at 312.

probability of particular accident scenarios occurring is taken into account.”¹⁰⁴ Instead, New York focuses on the “most severe events” making up the PRA core damage frequency in the IPEC SAMA analysis, without any regard to their probabilities.¹⁰⁵ That is contrary to NRC practice and the goal of a SAMA analysis, which seeks an “averaging of potential consequences” for the entire 50-mile radius SAMA analysis region for a one-year period.¹⁰⁶

Finally, NEPA allows agencies to select their own methodology as long as that methodology is reasonable.¹⁰⁷ It does not require resolution of disagreements among scientists as to methodology.¹⁰⁸ “When specialists express conflicting views, an agency must have discretion to rely on the reasonable opinions of its own qualified experts.”¹⁰⁹ Here, the NRC Staff has done precisely that by relying on the sound and reliable opinions of Dr. Ghosh and other qualified experts, including specialists from Sandia National Laboratories.¹¹⁰ The Board recognized as much in according greater weight to the testimony of the Staff’s and Entergy’s experts.

¹⁰⁴ *Pilgrim*, CLI-12-15, 75 NRC at 707.

¹⁰⁵ New York’s April 2014 Petition at 16, 21.

¹⁰⁶ *Pilgrim*, CLI-10-11, 71 NRC at 316.

¹⁰⁷ *See Mass v. NRC*, 708 F.3d 63, 76 (1st Cir. 2013) (citations omitted).

¹⁰⁸ *Pac. Gas & Elec. Co.* (Diablo Canyon Power Plant Indep. Spent Fuel Storage Installation), CLI-08-26, 68 NRC 509, 518 n.51 (2008) (quoting *Friends of Endangered Species, Inc. v. Jantzen*, 760 F.2d 976, 986 (1985)).

¹⁰⁹ *Id.* at 518 n. 50 (quoting *Marsh v. Or. Natural Res. Council*, 490 U.S. 360, 378 (1989)).

¹¹⁰ New York’s attempt to impugn the credibility of the NRC Staff’s witnesses by suggesting that they withheld knowledge of the SFP Consequence Study’s use of a 365-day TIMDEC value at hearing rings hollow. As discussed above, the SFP Consequence Study is not a reactor PRA and has no relevance to the IPEC SAMA analysis. The NRC Staff was under no obligation to disclose the study, much less discuss it as part of its hearing testimony on NYS-12C. As Entergy noted in its Answer to New York’s Motion to Reopen, New York did not disclose any of the information related to the SFP Consequence Study it relies on in its Motion to Reopen (*i.e.*, Attachments 3-7) in advance of that Motion, despite the prior availability of that information. *See* Entergy’s December 2013 Answer at 11.

D. No Action by the NRC Staff or the Board Has Prejudiced New York's Ability to Participate Fully in This Proceeding

New York's argument that it was prejudiced by the Staff's alleged failure to disclose the SFP Consequence Study as relevant to NYS-12C is entirely specious.¹¹¹ Neither the Staff nor Entergy had any obligation to disclose a document that lacks relevance to a license renewal SAMA analysis or the issues raised in NYS-12C. Moreover, the record of this proceeding belies New York's claim. New York's participation was anything but limited. With respect to NYS-12C, New York was permitted to amend its contention three times, proffer extensive direct and rebuttal testimony, submit innumerable exhibits, present live testimony, cross-examine Entergy and Staff witnesses, and prepare detailed proposed findings of fact and conclusions of law. Any notion that New York's participation was somehow impaired is utterly baseless.

V. CONCLUSION

For the foregoing reasons, New York's Petition should be denied. Even if it is procedurally authorized, it fails to raise a substantial question warranting review under the standards set forth in 10 C.F.R. § 2.341(b)(4). The Board correctly concluded that New York failed to meet the Commission's strict standards for reopening the hearing record and reconsidering its decision in LBP-13-13.

¹¹¹ See New York's April 2014 Petition at 24.

Respectfully submitted,

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Dated at Washington, D.C. this 23rd day of May 2014

**UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION**

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)	Docket Nos. 50-247-LR and
)	50-286-LR
ENTERGY NUCLEAR OPERATIONS, INC.)	
)	
(Indian Point Nuclear Generating Units 2 and 3))	
)	May 23, 2014

CERTIFICATE OF SERVICE

Pursuant to 10 C.F.R. § 2.305 (as revised), I certify that, on this date, copies of “Applicant’s Answer Opposing the New York State’s Petition for Review of April 1, 2014 Board Order Denying Reconsideration of LBP-13-13” 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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