

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

Before Administrative Judges:

Lawrence G. McDade, Chairman
Dr. Kaye D. Lathrop
Dr. Richard E. Wardwell

In the Matter of

ENTERGY NUCLEAR OPERATIONS, INC.

(Indian Point Nuclear Generating Units 2 and 3)

Docket Nos. 50-247-LR and 50-286-LR

ASLBP No. 07-858-03-LR-BD01

July 14, 2011

MEMORANDUM AND ORDER

(Ruling on Motion and Cross-Motions for Summary Disposition of NYS-35/36)

Before this Licensing Board are a motion from the State of New York (New York) and cross-motions from Entergy Nuclear Operations, Inc. (Entergy or Applicant) and the NRC Staff for summary disposition of Consolidated Contention New York 35/36 (NYS-35/36).¹ This contention arises from alleged deficiencies in the severe accident mitigation alternatives (SAMA) analysis for Entergy's License Renewal Application (LRA) for the nuclear power reactors Indian Point Units 2 and 3 (IP2 and IP3).

Specifically, NYS-35/36 challenges the NRC Staff's failure, in its December 2010 Final Supplemental Environmental Impact Statement (FSEIS), (1) to require completion of cost analyses for the SAMAs that appear to be cost-beneficial and (2) to require Entergy either to implement mitigation alternatives when the benefits of those alternatives substantially outweigh

¹ State of New York's Motion for Summary Disposition of Consolidated Contention NYS-35/36 (Jan. 14, 2011) [hereinafter New York Motion]; Applicant's Consolidated Memorandum in Opposition to New York State's Motion for Summary Disposition of Contention NYS-35/36 and in Support of Its Cross-Motion for Summary Disposition (Feb. 3, 2011) [hereinafter Entergy Cross-Motion]; NRC Staff's (1) Cross-Motion for Summary Disposition, and (2) Response to New York State's Motion for Summary Disposition, of Contention NYS-35/36 (Severe Accident Mitigation Alternatives) (Feb. 7, 2011) [hereinafter NRC Staff Cross-Motion].

costs or, in the alternative, to explain with a rational basis why the NRC Staff would allow Entergy's licenses to be renewed without the implementation of the cost-beneficial SAMAs.²

As explained below, by this Memorandum and Order we grant New York's Motion and deny the Cross-Motions of Entergy and the NRC Staff.

I. PROCEDURAL BACKGROUND

On December 11, 2009, Entergy submitted a revised SAMA analysis to the NRC Staff.³ In LBP-10-13, we admitted contentions filed by New York challenging the revised SAMA analysis, and we consolidated two of those contentions as NYS-35/36.⁴ Specifically, as relevant here, we admitted NYS-35 as a contention of omission to the extent it claimed that Entergy's incomplete SAMA cost-benefit analysis necessarily precluded the NRC Staff from making an informed decision on the environmental impacts of Entergy's LRA.⁵ Using similar reasoning, we admitted NYS-36 to the extent it demanded that the NRC Staff either require the implementation of cost-beneficial SAMAs prior to approving Entergy's LRA or offer a rational explanation for why it was not requiring implementation of those SAMAs found cost-beneficial.⁶

On November 30, 2010, the Commission denied Entergy's and the NRC Staff's appeal from our decision to admit NYS-35/36.⁷ On December 3, 2010, the NRC Staff issued its

² See LBP-10-13, 71 NRC __, __ (slip op. at 16-35) (June 30, 2010).

³ See Letter from Fred Dacimo, Vice President, License Renewal, Entergy Nuclear Northeast, to U.S. Nuclear Regulatory Commission, NL-09-165 (Dec. 11, 2009) (ADAMS Accession No. ML093580089).

⁴ LBP-10-13, 71 NRC at __ (slip op. at 35, 36).

⁵ Id. at __ (slip op. at 26-30).

⁶ Id. at __ (slip op. at 34-35).

⁷ CLI-10-30, 72 NRC __, __ (slip op. at 8) (Nov. 30, 2010).

FSEIS.⁸ The Board permitted the parties, inter alia, to move for summary disposition on matters arising from “significantly new data or conclusions in the FSEIS” no later than February 3, 2011.⁹

On January 14, 2011, New York moved for summary disposition, asking that Entergy’s LRA be denied due to the inadequate analysis of its SAMAs in the FSEIS. In the alternative, New York requested that there be no final decision on Entergy’s LRA until the FSEIS is supplemented in order to add the information and directives called for in NYS-35/36.¹⁰ On February 3, 2011, Entergy opposed New York’s Motion and simultaneously cross-moved to dismiss NYS-35/36 as a matter of law. Also on that date, the Attorney General of the State of Connecticut (Connecticut) filed a Response in support of New York’s Motion.¹¹ On February 7, 2011, the NRC Staff filed its Response to New York’s Motion and cross-moved to dispose of the contention as a matter of law.¹² On February 23, 2011, New York filed its Combined Reply to Entergy’s and the NRC Staff’s Cross-Motions.¹³

⁸ Generic Environmental Impact Statement for License Renewal of Nuclear Plants, NUREG-1437, Supplement 38: Regarding Indian Point Nuclear Generating Unit Nos. 2 and 3, Final Report, Main Report, and Comment Responses (Dec. 3, 2010) [hereinafter FSEIS].

⁹ Licensing Board Order (Granting Intervenor’s Joint Motion for an Extension of Time) (Dec. 27, 2010) at 2 (unpublished).

¹⁰ New York Motion at 2-3.

¹¹ Entergy Cross-Motion at 2; Response of Attorney General of Connecticut in Support of New York’s Motion for Summa[r]y Disposition of Consolidated Contention NYS-35/36 (Feb. 3, 2011) [hereinafter Connecticut Response].

¹² NRC Staff Cross-Motion at 1.

¹³ State of New York’s Combined Reply to Entergy and Staff Cross-Motions for Summary Disposition on NYS Combined Contentions 35 and 36 Concerning the December 2009 Severe Accident Mitigation Alternative Reanalysis (Feb. 23, 2011) [hereinafter New York Combined Reply].

II. POSITIONS OF THE PARTIES

A. New York Motion

New York represents that there are no material facts in dispute regarding NYS-35/36. According to New York, all parties agree that Entergy has not completed a SAMA analysis for all potentially cost-beneficial SAMAs and that there is no dispute as to what the cost-to-benefit margins would be if the SAMAs found to be cost-beneficial were implemented. The NRC Staff's stated rationale for not requiring further analysis or the implementation of cost-beneficial SAMAs prior to relicensing is that none of the cost-beneficial SAMAs, or potentially cost-beneficial SAMAs, relate to adequately managing the effects of aging during the period of extended operation.¹⁴ The NRC Staff also based its conclusion on its belief that current licensing basis doctrine prohibits implementation of cost-beneficial SAMAs as part of the license renewal process¹⁵ and that the environmental impacts of a severe accident at the Indian Point facility are small as a generic matter and thus are not relevant.¹⁶

Given that the NRC Staff, in its FSEIS, acknowledges that more SAMA analysis may well be forthcoming after the renewal of Entergy's licenses, New York argues that Entergy's SAMA analysis is incomplete and, as a result of the NRC Staff's permissive posture toward that incomplete analysis, the NRC Staff lacks sufficient information to make an informed decision on Entergy's LRA.¹⁷ New York reasons that the treatment by the NRC Staff of these cost-beneficial and these incomplete, potentially cost-beneficial SAMAs does not satisfy the NRC's legal duties to conduct a hard look pursuant to statutory, precedential, and regulatory authority.¹⁸ Stating

¹⁴ New York Motion at 7.

¹⁵ Id.

¹⁶ Id. at 8.

¹⁷ Id. at 11-17.

¹⁸ Id.

that the “backfit rule”¹⁹ does not explicitly preclude and, in fact, Part 54 permits the implementation of SAMAs found to be cost-beneficial, New York argues that the NRC Staff lacks a rational basis for its failure to consider requiring implementation of those SAMAs determined to be cost-beneficial.²⁰

Therefore, New York asks the Board to conclude that the FSEIS is deficient as a matter of law and, as a result, to deny Entergy’s LRA. In the alternative, New York asks the Board to suspend a final decision on Entergy’s Application until Entergy completes its SAMA cost-benefit analyses and the NRC Staff either conditions license renewal on implementation of all cost-beneficial SAMAs or provides a rational basis for why it is not requiring such implementation.²¹

B. Entergy Cross-Motion

Entergy concurs that summary disposition of NYS-35/36 is appropriate. However, Entergy argues that it, rather than New York, is entitled to judgment as a matter of law on NYS-35/36.²² If the Board does not find in its favor, Entergy alternatively requests that the Board deny New York’s Motion and conduct a full hearing on the merits of this consolidated contention.²³

Entergy represents that, contrary to New York’s assertions, its SAMA review is complete as a matter of fact and law.²⁴ While Entergy construes NRC regulations as not prescribing a specific methodology for conducting SAMA analyses, it purports to have followed the dictates of

¹⁹ Backfitting includes the modification of or addition to systems, structures, components, or designs of a facility in accordance with the provisions of 10 C.F.R. § 50.109.

²⁰ New York Motion at 18-23.

²¹ Id. at 23.

²² Entergy Cross-Motion at 1-2.

²³ Id. at 2.

²⁴ See id. at 26-28 & nn.123, 129.

NEI 05-01, a guidance document endorsed by the NRC Staff.²⁵ Entergy states that, in order to confirm the cost-beneficial nature of certain SAMAs, it was necessary to conduct its SAMA analyses in multiple stages to gauge adequately these SAMAs' particular costs and benefits. Because the NRC Staff concluded that Entergy's SAMA cost estimates were reasonable after seeking additional information regarding the Applicant's SAMA reviews, Entergy insists that it has provided sufficient information for the NRC Staff's review in the FSEIS.²⁶ In addition, Entergy defends as reasonable and legally correct the NRC Staff's rationale for not requiring the implementation of cost-beneficial SAMAs. More specifically, Entergy argues that the NRC Staff is correct that Part 54 does not compel changes to a plant's current licensing basis in the license renewal process and that the National Environmental Policy Act (NEPA) does not require implementation of mitigation measures such as SAMAs.²⁷

C. NRC Staff Cross-Motion

Parallel to Entergy's Cross-Motion, the NRC Staff asserts that summary disposition of NYS-35/36 is proper and that the consolidated contention should be resolved as a matter of law with dismissal of these contentions.²⁸ After summarizing its review of SAMAs in the FSEIS, the NRC Staff professes to have taken a hard look at SAMAs and justifies its decision not to require implementation of them as consistent with the Board's interpretation in LBP-10-13 of the Administrative Procedure Act (APA) and NEPA.²⁹ Similarly, contrary to New York's position, the NRC Staff posits that license renewal need not hinge on completion of engineering project cost-

²⁵ See id. at 8-9, 20, 26 (citing NEI 05-01 [Rev. A], Severe Accident Mitigation Alternatives (SAMA) Analysis, Guidance Document (Nov. 2005) at I (ADAMS Accession No. ML060530203)).

²⁶ Entergy Cross-Motion at 20-22.

²⁷ Id. at 22-25, 28-37.

²⁸ NRC Staff Answer at 1.

²⁹ Id. at 12-19, 24-28.

benefit analyses for SAMAs previously identified as cost-beneficial.³⁰ Because it views itself as having satisfied the concerns at the heart of NYS-35/36, the NRC Staff considers the FSEIS as rendering NYS-35/36 moot.³¹

Regarding the specific claims in New York's Motion, the NRC Staff first posits that additional engineering cost-benefit analysis is unnecessary because it would identify no additional SAMAs as potentially cost-beneficial, would only pertain to issues with Indian Point's current licensing basis, and would therefore be irrelevant and unnecessary to fulfilling the regulatory requirements of license renewal.³² According to the NRC Staff, no agency or industry guidance documents support New York's position that additional engineering project cost-benefit analysis is required "or that cost-effective SAMAs must be required as a condition for license renewal."³³ Finally, the NRC Staff states that New York's request for a backfit is inappropriate because the types of changes to a facility necessitating a backfit are supposed to be handled outside of the agency's license renewal process, rather than as prerequisites to license renewal.³⁴

D. Connecticut Response

Connecticut supports New York's Motion, echoing New York's position that the FSEIS fails to take the mandatory hard look at SAMAs and does not contain enough information to fully analyze the environmental impacts from renewing Entergy's licenses for IP2 and IP3.³⁵

³⁰ Id. at 19-24.

³¹ Id. at 29-30.

³² Id. at 31-35.

³³ Id. at 36-38.

³⁴ Id. at 38-39.

³⁵ Connecticut Response at 1-4.

E. New York Combined Reply to Cross-Motions

New York reasons that NRC case law and regulations permit implementation of SAMAs that are found to be cost-beneficial as part of the agency's environmental review, even where the Commission has determined generically that the impacts of severe accidents are small because, according to New York, the Commission has explicitly required complete analysis of these SAMAs as a prerequisite to license renewal.³⁶ Similarly, New York posits that a plant's current licensing basis may be altered as the result of the environmental review conducted during the license renewal process through implementation of SAMAs found cost-effective and further claims that the NRC's Part 54 safety review may not constrict its Part 51 environmental review.³⁷ According to New York, a plant's SAMA review must be complete before a renewed license is granted in order for the NRC Staff to make an informed decision with a rational basis. New York maintains the NRC Staff failed in this respect because the Staff's FSEIS would permit Entergy to forgo completion of that SAMA analysis.³⁸

III. LEGAL STANDARDS GOVERNING MOTIONS FOR SUMMARY DISPOSITION

On two prior occasions, we explained the standards governing motions for summary disposition.³⁹ We do not reiterate that discussion here in full, yet we emphasize that summary disposition of a contention is appropriate when there no longer exists any genuine dispute over a material fact and the moving party is entitled to judgment as a matter of law.⁴⁰

³⁶ New York Combined Reply at 4-9.

³⁷ Id. at 9-13, 21-22.

³⁸ Id. at 13-20.

³⁹ Licensing Board Memorandum and Order (Denying Entergy's Motion for the Summary Disposition of NYS Contention 17/17A) (Apr. 22, 2010) at 1-2 (unpublished); Licensing Board Memorandum and Order (Ruling on Motions for Summary Disposition) (Nov. 3, 2009) at 1-2 (unpublished).

⁴⁰ 10 C.F.R. § 2.1205(c) (directing that, in a proceeding governed by Subpart L, the Board is to apply the standards of Subpart G when ruling on motions for summary disposition); id. § 2.710(d)(2) (permitting a motion for summary disposition to be granted in a proceeding

IV. LEGAL STANDARDS GOVERNING SAMAS

To evaluate a license renewal application for a nuclear power reactor, the NRC reviews (1) the management of aging effects and time-limited aging analysis of particular safety-related functions of the plant's systems, structures, and components pursuant to 10 C.F.R. Part 54, in which the NRC addresses its obligations under the Atomic Energy Act, and (2) the environmental impacts and alternatives to the proposed action in accordance with 10 C.F.R. Part 51, in which the NRC addresses its obligations under NEPA.⁴¹ The "aging-based safety review" set out in Part 54 is analytically separate from Part 51's environmental inquiry and "does not in any sense 'restrict NEPA.'"⁴² Accordingly, the NEPA review in license renewal proceedings, which is conducted pursuant to Part 51, is not limited to aging management-related issues.⁴³

The Commission's Part 51 regulations, which implement NEPA in NRC proceedings, classify the environmental impacts of license renewal as either Category 1 impacts, which are generically addressed by the NRC's Generic Environmental Impact Statement for License Renewal, or Category 2 impacts, which are analyzed on a site-specific basis.⁴⁴ SAMAs fall within Category 2 and are site-specific.

governed by Subpart G "if the filings in the proceeding, depositions, answers to interrogatories, and admissions on file, together with the statements of the parties and the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to a decision as a matter of law.").

⁴¹ 10 C.F.R. §§ 51.10(a) (declaring that the regulations in 10 C.F.R. Part 51 implement NEPA), 54.29(a)-(b) (outlining the scope of reactor operating license renewal reviews); see also LBP-08-13, 68 NRC 43, 66 (2008) (citations omitted).

⁴² Florida Power & Light Co. (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3, 13 (2001) (citations omitted).

⁴³ Pacific Gas & Electric Co. (Diablo Canyon Nuclear Power Plant, Units 1 and 2), LBP-10-15, 72 NRC __, __ (slip op. at 20) (Aug. 4, 2010).

⁴⁴ 10 C.F.R. §§ 51.53(c)(3)(i)-(ii), 51.95(c)(4); see also id. Part 51, Subpart A, app. B, tbl. B-1; LBP-08-13, 68 NRC at 67.

Where the Staff has not already considered site-specific SAMAs for a facility, alternatives to mitigate severe accidents must be considered as part of an applicant's Environmental Report (ER) and, ultimately, as part of the NRC Staff's supplemental EIS in a power reactor license renewal proceeding.⁴⁵ SAMA review identifies and assesses possible plant changes—such as improvements in hardware, training, or procedures—that could cost-effectively mitigate the environmental impacts that would otherwise flow from a potential severe accident.⁴⁶ The sufficiency of the NRC's hard look at the benefits of SAMAs in comparison to their costs is subject to litigation in a license renewal proceeding.⁴⁷

The current licensing basis (CLB)⁴⁸ of an operating license shall continue during the license renewal period, but

[t]hese conditions may be supplemented or amended as necessary to protect the environment during the term of the renewed license and will be derived from information contained in the supplement to the environmental report submitted pursuant to 10 C.F.R. part 51, as analyzed and evaluated in the NRC record of decision.⁴⁹

⁴⁵ 10 C.F.R. § 51.53(c)(3)(ii)(L); id. Part 51, Subpart A, app. B, tbl. B-1.

⁴⁶ Duke Energy Corp. (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-17, 56 NRC 1, 5 (2002).

⁴⁷ LBP-10-13, 71 NRC at ___ (slip op. at 5 n.17) (citing Duke Energy Corp. (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Generating Station, Units 1 and 2), CLI-03-17, 58 NRC 419, 431 (2003) (citing Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 352 (1989))).

⁴⁸ See LBP-10-13, 71 NRC at ___ (slip op. at 4 & n.12) (citing 10 C.F.R. § 54.3(a); Entergy Nuclear Generation Co. and Entergy Nuclear Operations, Inc. (Pilgrim Nuclear Power Station), CLI-10-14, 71 NRC ___, ___ (slip op. at 4) (June 17, 2010) (“The current licensing basis (CLB) is the set of NRC requirements (including regulations, orders, technical specifications, and license conditions) applicable to a specific plant, and includes the licensee’s written, docketed commitments for ensuring compliance with applicable NRC requirements and the plant specific design basis.”)).

⁴⁹ 10 C.F.R. § 54.33(c).

While a license renewal applicant is compelled to implement those safety SAMAs that deal with aging management,⁵⁰ the Staff's obligations under Part 51 and NEPA are not limited to only those SAMAs that address aging management. Once the NRC completes its environmental review, its record of decision must:

[s]tate whether the Commission has taken all practicable measures within its jurisdiction to avoid or minimize environmental harm from the alternative selected, and if not, to explain why those measures were not adopted. Summarize any license conditions and monitoring programs adopted in connection with mitigation measures.⁵¹

Therefore, the NRC Staff is bound to take a hard look, consistent with NEPA and the APA, at all SAMAs (both aging-related and non-aging-related) before deciding whether to grant a license renewal application.⁵² The NRC Staff has the authority to require implementation of non-aging management SAMAs through its CLB backfit review under Part 50 or through setting conditions of the license renewal.⁵³ Conversely, a federal agency, such as the NRC, would be acting arbitrarily and capriciously if it did not look at

⁵⁰ LBP-10-13, 71 NRC at ___ (slip op. at 5 & n.18) (citing Entergy Nuclear Generation Co. and Entergy Nuclear Operations, Inc. (Pilgrim Nuclear Power Station), CLI-10-11, 71 NRC ___, ___ (slip op. at 7 n.26) (Mar. 26, 2010)).

⁵¹ 10 C.F.R. § 51.103(a)(4).

⁵² Cf. Kleppe v. Sierra Club, 427 U.S. 390, 410 n.21 (1976) ("The only role for a court is to insure that the agency has taken a 'hard look' at environmental consequences."); Nuclear Fuel Servs., Inc. (Erwin, Tennessee), LBP-05-08, 61 NRC 202, 207 (2005) (citations omitted) ("NEPA . . . imposes a procedural requirement on an agency's decision-making process by mandating that an agency consider the environmental impacts of a proposed action and inform the public that it has taken those impacts into account in making its decision. In other words, an agency must take a 'hard look' at the environmental consequences of a proposed action before taking that action.").

⁵³ LBP-10-13, 71 NRC at ___ (slip op. at 5 & n.19) (citing Duke Energy Corp. (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-28, 56 NRC 373, 388 n.77 (2002); 10 C.F.R. § 50.109(a)(3) ("[T]he Commission shall require the backfitting of a facility only when it determines, based on the analysis described in paragraph (c) of this section, that there is a substantial increase in the overall protection of the public health and safety or the common defense and security to be derived from the backfit and that the direct and indirect costs of implementation for that facility are justified in view of this increased protection.")).

relevant data and sufficiently explain a rational nexus between the facts found in its review and the choice it makes as a result of that review.⁵⁴

V. BOARD DECISION

In ruling on the instant Motion and Cross-Motions for Summary Disposition, we must first determine whether there exists a genuine dispute over any material fact arising from NYS-35/36. If we find that no factual dispute exists, we must then decide which party is entitled to judgment as a matter of law.

A. No Genuine Dispute of Material Fact

Based on its review of Entergy's LRA, the FSEIS identified the following SAMAs as potentially cost-beneficial: for IP2, SAMAs 9, 21, 22, 28, 44, 53, 54, 56, 60, 61, 62, and 65; and for IP3, SAMAs 7, 18, 19, 52, 53, 55, 61, and 62.⁵⁵ Based on the NRC Staff's review of Entergy's ER and Entergy's December 2009 SAMA reanalysis, the estimated costs and benefits for each of these SAMAs are as follows.⁵⁶

SAMA	Estimated Benefit	Estimated Benefit with Uncertainty	Estimated Cost
IP2			
9	\$6,300,000.00	\$13,000,000.00	\$4,100,000.00
21	\$2,100,000.00	\$4,400,000.00	\$3,200,000.00
22	\$1,100,000.00	\$2,300,000.00	\$2,200,000.00
28	\$1,400,000.00	\$2,900,000.00	\$938,000.00
44	\$2,400,000.00	\$4,900,000.00	\$1,700,000.00
53	\$660,000.00	\$1,400,000.00	\$800,000.00
54	\$5,600,000.00	\$12,000,000.00	\$200,000.00
56	\$49,000.00	\$100,000.00	\$82,000.00
60	\$1,300,000.00	\$2,700,000.00	\$216,000.00

⁵⁴ ShieldAlloy Metallurgical Corp. v. Nuclear Regulatory Commission, 624 F.3d 489, 492-93 (D.C. Cir. 2010) (citations omitted).

⁵⁵ FSEIS at 5-9 to 5-10.

⁵⁶ Id. at G-36 to G-38. According to the Staff, one of the SAMAs originally identified as potentially cost-beneficial by Entergy, SAMA IP3 30, "was no longer cost beneficial based on correction of an error in the ER." Id. at 5-10.

61	\$2,800,000.00	\$5,800,000.00	\$192,000.00
62	\$850,000.00	\$1,800,000.00	\$1,500,000.00
65	\$5,600,000.00	\$12,000,000.00	\$560,000.00
IP3			
7	\$5,000,000.00	\$7,300,000.00	\$4,100,000.00
18	\$4,800,000.00	\$15,000,000.00	\$12,000,000.00
19	\$2,100,000.00	\$3,100,000.00	\$2,800,000.00
52	\$250,000.00	\$360,000.00	\$50,000.00
53	\$500,000.00	\$720,000.00	\$228,000.00
55	\$4,100,000.00	\$5,900,000.00	\$1,300,000.00
61	\$4,400,000.00	\$6,300,000.00	\$560,000.00
62	\$4,400,000.00	\$6,300,000.00	\$197,000.00

After considering Entergy’s methodology for calculating these cost and benefit estimates set forth in Entergy’s ER and Entergy’s December 2009 SAMA reanalysis,⁵⁷ the NRC Staff concluded these potentially cost-beneficial SAMAs “are included within the set of SAMAs that Entergy will consider further for implementation”⁵⁸ and that “the methods used and the implementation of those methods were sound.”⁵⁹ As a result, the NRC Staff stated that it:

concur with Entergy’s identification of areas in which risk can be further reduced in a cost-beneficial manner through the implementation of the identified, potentially cost beneficial SAMAs. Given the potential for cost-beneficial risk reduction, the NRC staff agrees that further evaluation of these SAMAs by Entergy is warranted.⁶⁰

While recognizing these SAMAs as potentially cost-beneficial, the NRC Staff posits that:

these SAMAs do not relate to adequately managing the effects of aging during the period of extended operation. Therefore, they need not be implemented as part of license renewal pursuant to Title 10 of the Code of Federal Regulations, Part 54, “Requirements for Renewal of Operating Licenses for Nuclear Power Plants” (10 CFR Part 54).⁶¹

⁵⁷ Id. at G-39 to G-48.

⁵⁸ Id. at G-48.

⁵⁹ Id. at G-49.

⁶⁰ Id.

⁶¹ Id.

Because the parties do not dispute either the text of the FSEIS or the NRC Staff's conclusions regarding Entergy's discussion (beyond the legal implications of the NRC Staff's actions and conclusions in the FSEIS and the completeness of Entergy's own SAMA review as a matter of law),⁶² we agree with all parties that there remains no genuine dispute over any material fact.

B. Entitlement to Judgment as a Matter of Law

In McGuire/Catawba, the Commission held that a SAMA need not be implemented during a particular plant's license renewal review where the Commission is concurrently resolving the safety improvement achieved by that SAMA through a generic process attached to the agency's review of all plants' current licensing bases.⁶³ The Commission also admonished in Pilgrim that SAMAs unrelated to aging management need not be implemented pursuant to the NRC's license renewal safety review under Part 54.⁶⁴

Regardless, both are inapposite here. Specifically, the SAMAs identified in the FSEIS as potentially cost-beneficial have not been analyzed under the NRC's Part 54 license renewal safety review, having instead been analyzed under its Part 51 environmental review.

Furthermore, the Staff has not indicated that issues raised by any of the subject SAMAs

⁶² See New York Combined Reply, Attach.: Counterstatement [to Entergy's Statement] of Undisputed Material Facts at paras. 7, 12-19 (Feb. 23, 2011); id., Attach.: Counterstatement [to NRC Staff's Statement] of Undisputed Material Facts at paras. 3-7 (Feb. 23, 2011); NRC Staff Cross-Motion, Attach. 3: NRC Staff's Statement of Material Facts in Support of Its Cross-Motion for Summary Disposition of Contention NYS 35/36 at paras. 4-8 (Feb. 7, 2011); id., Attach. 4: NRC Staff's Response to the State of New York's Statement of Material Facts Not in Dispute at paras. 1-3 (Feb. 7, 2011); Entergy Cross-Motion, Attach. 1: Statement of Material Facts in Support of Applicant's Cross-Motion for Summary Disposition of Contention NYS-35/36 at paras. 12-19 (Feb. 3, 2010); id., Attach. 2: Applicant's Response to New York State's Statement of Material Facts Not in Dispute at paras. B.1-B.3, B.6, B.8, B.10 to B.16 (Feb. 3, 2011); New York Motion at 6-8.

⁶³ McGuire/Catawba, CLI-02-28, 56 NRC at 388 n.77.

⁶⁴ Pilgrim, CLI-10-11, 71 NRC at ___ (slip op. at 7 n.26).

currently are being resolved generically across all plants through an agency review of their current licensing bases.

Part 51 requires analysis of the potential mitigation of, and alternatives to, severe accidents on a site-specific basis.⁶⁵ Accordingly, we find that the NRC Staff's decision to allow Entergy to complete its SAMA review outside of the license renewal process, by deferring the evaluation of SAMAs found to be potentially cost-beneficial until after relicensing, does not provide an adequate record for the agency to make its decision on the impacts of relicensing IP2 and IP3.

Entergy might represent that its review is "complete" for the purposes of license renewal,⁶⁶ but it also has stated (with the apparent blessing of the NRC Staff) that it will conclude its SAMA review after license renewal is complete.⁶⁷ Although further review might well result in fewer identified cost-beneficial SAMAs, we cannot accept the NRC Staff's notion that fewer identified cost-beneficial SAMAs equals no gain in information.⁶⁸

On the contrary, given that Entergy's SAMA review conducted to date has resulted in the elimination of certain SAMAs and the identification of other SAMAs with favorable cost-to-benefit ratios,⁶⁹ it is equally plausible that further SAMA review would provide the agency and

⁶⁵ 10 C.F.R. § 51.53(c)(3)(ii)(L).

⁶⁶ See Entergy Cross-Motion at 25-28.

⁶⁷ See FSEIS at G-48.

⁶⁸ See NRC Staff Cross-Motion at 20-24 (arguing that further review is not necessary and would not produce any more meaningful information for the Staff's review).

⁶⁹ See FSEIS at 5-10 ("In response to an NRC staff inquiry regarding estimated benefits for certain SAMAs and lower cost alternatives, Entergy identified one additional potentially cost-beneficial SAMA . . . and Entergy determined that one SAMA that was previously identified as potentially cost beneficial was no longer cost beneficial based on correction of an error in the ER.").

the public with a more accurate sense of the costs and benefits of relicensing IP2 and IP3.⁷⁰ Accordingly, we find that the NRC Staff has prematurely concluded its review before receiving all the requisite information from Entergy, and that until the NRC Staff receives and analyzes that information, it necessarily cannot take the requisite hard look at Entergy's LRA that is required under NEPA.

Moreover, the Staff has the option and the duty, as we discussed, to pursue modifications to Entergy's CLB at all periods during normal and extended operations through the backfit procedure if "there is a substantial increase in the overall protection of the public health and safety or the common defense and security to be derived from the backfit and that the direct and indirect costs of implementation for that facility are justified in view of this increased protection."⁷¹ Consequently, we disagree with the Staff as a matter of law that its citation to the aging management limitations of Part 54 constitutes the requisite rational basis for refusing to require implementation of SAMAs whose benefits, at this juncture and on this record, clearly outweigh their costs. Other than the Staff's misplaced citation to Part 54's limitations, we are left with no explanation at all for why it has decided not to require implementation of these cost-beneficial SAMAs by setting conditions for the license renewal,⁷² by directing a backfit,⁷³ or through some other procedure.

Accordingly, we find that the FSEIS does not articulate a rational basis for not requiring Entergy to complete its SAMA review and for not requiring the implementation of cost-beneficial SAMAs prior to the relicensing of Indian Point Units 2 and 3. We further conclude, as a matter

⁷⁰ See Hydro Res., Inc. (P.O. Box 777, Crownpoint, NM 87313), LBP-06-19, 64 NRC 53, 62 (2006) (explaining the twin aims of NEPA as requiring the agency both to consider all environmental impacts of a proposed action and to inform the public that it has conducted that review).

⁷¹ 10 C.F.R. § 50.109(a)(3).

⁷² See id. § 54.33(c).

⁷³ See id. § 50.109.

of law, that the FSEIS violates NRC regulations, NEPA, and the APA. Therefore, we grant New York's Motion and dispose of NYS-35/36 as a matter of law.

VI. CONCLUSION

For the foregoing reasons, we grant New York's Motion and, in so doing, hold that, under NRC Regulations, the APA, and NEPA, Entergy's licenses cannot be renewed unless and until the NRC Staff reviews Entergy's completed SAMA analyses and either incorporates the result of these reviews into the FSEIS or, in the alternative, modifies its FSEIS to provide a valid reason for recommending the renewal of the licenses before the analysis of potentially cost-effective SAMAs is complete and for not requiring the implementation of cost-beneficial SAMAs.

The goal of NEPA is to help federal agencies make decisions that are based on an accurate understanding of the environmental consequences of their actions.⁷⁴ Accordingly, NEPA prohibits uninformed agency action.⁷⁵ To accept the NRC Staff's position on this issue would be to accept the proposition that the regulations (i.e., 10 C.F.R. § 51.53(c)(3)(ii)(L)) require the Applicant to conduct SAMA analysis as part of the license renewal process⁷⁶ but that the adequacy of those analyses and the conclusions to be drawn from those analyses by the NRC Staff are irrelevant to and need not be considered as part of the license extension decision. To accept this argument would be to put the Board's imprimatur on an uninformed agency decision. We are unwilling to accept that argument.

⁷⁴ See 40 C.F.R. § 1500.1(c).

⁷⁵ Methow Valley, 490 U.S. at 351.

⁷⁶ If the NRC Staff has not previously considered SAMAs for an Applicant's plant in an EIS or Environmental Assessment it must do so in the context of its review of a license renewal application, 10 C.F.R. § 51.53(c)(3)(ii)(L), and a license renewal cannot be granted unless and until all the applicable requirements of 10 C.F.R. Part 51 have been satisfied. 10 C.F.R. § 54.29(b).

By granting New York's Motion, we are not directing the implementation of any SAMA.⁷⁷ Rather, we hold that the FSEIS must demonstrate that the NRC Staff has received sufficient information to take a hard look at SAMAs as required by 10 C.F.R. § 51.53(c)(3)(ii)(L), has in fact taken that hard look, and has adequately explained its conclusions that may, but need not, include requiring the implementation of cost-effective SAMAs.

It is so ORDERED.

THE ATOMIC SAFETY
AND LICENSING BOARD⁷⁸

/RA/

Lawrence G. McDade, Chairman
ADMINISTRATIVE JUDGE

/RA/

Dr. Kaye D. Lathrop
ADMINISTRATIVE JUDGE

/RA/

Dr. Richard E. Wardwell
ADMINISTRATIVE JUDGE

Rockville, Maryland
July 14, 2011

⁷⁷ NEPA does not mandate the particular decisions that an agency must reach, only the process the agency must follow while reaching decisions. McGuire/Catawba, CLI-02-28, 56 NRC at 388 n.77 (citing Methow Valley, 490 U.S. at 350).

⁷⁸ Copies of this Memorandum and Order were sent this date by Internet e-mail to: (1) Counsel for the NRC Staff; (2) Counsel for Entergy; (3) Counsel for the State of New York; (4) Counsel for Riverkeeper, Inc.; (5) Manna Jo Green, the Representative for Clearwater; (6) Counsel for the State of Connecticut; (7) Counsel for Westchester County; (8) Counsel for the Town of Cortlandt; (9) Mayor Sean Murray, the Representative for the Village of Buchanan; and (10) Michael J. Delaney, counsel for the City of New York.