RAS-E-112

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

In the Matter of

ENTERGY NUCLEAR INDIAN POINT 2, LLC,
ENTERGY NUCLEAR INDIAN POINT 3, LLC, and
ENTERGY NUCLEAR OPERATIONS, INC.

INDIAN POINT NUCLEAR GENERATING UNITS 2 & 3

Regarding the Renewal of Facility Operating Licenses
No. DPR-26 and No. DPR-64 for an Additional 20-year Period

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

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

PETITIONER STATE OF NEW YORK'S REQUEST FOR ADMISSION OF SUPPLEMENTAL CONTENTION No. 26-A (Metal Fatigue)

Background

Pursuant to 10 C.F.R. § 2.309(f)(2), the State of New York seeks leave to amend Contention 26 of its Notice of Intention to Participate and Petition to Intervene ("Petition") filed on November 30, 2007. This amendment to Contention 26 would be denominated "Supplemental Contention 26-A." New York's Petition contains thirty-two contentions that challenge the adequacy of the license renewal application (LRA) filed by Entergy Nuclear Operations, Inc., for Units 2 and 3 of the Indian Point nuclear facility in Buchanan, New York. Contention 26 asserts that Entergy has failed to account for metal fatigue on key reactor components and thus has failed to demonstrate that its time limited aging analyses adequately manage the effects of aging – in this instance, the effects of metal fatigue – during the period of extended operation. Thus, Entergy's LRA regarding metal fatigue does not comply with the requirements of 10 C.F.R. § 54.21(c)(1)(iii).

New York is seeking leave to file this supplemental contention because Entergy amended

its LRA on January 22, 2008, the same date that it filed its Answer to New York's Petition. Entergy's LRA amendment, denominated "LRA Amendment #2," was based on information that Entergy had within its possession when it filed its original LRA on April 23, 2007, but this information was not included in its original LRA on the issue of metal fatigue. To further underscore the lateness of Entergy's LRA Amendment #2, as part of its rationale for amending its LRA on metal fatigue, Entergy stated that the NRC approved similar approaches on two other occasions. Entergy Answer, fn. 609. These approaches, however, occurred in April 2001 at the Arkansas Nuclear One, Unit 1 plant (NUREG-17434), and in June 2005 at the Arkansas Nuclear One, Unit 2 plant (NUREG-1828). Astonishingly, Entergy operates both of those plants, and thus had plenty of insider knowledge and opportunity to incorporate this information into its original LRA.

New York does not seek to withdraw its original Contention 26. Rather, this amendment should be viewed as supplementing the basis of that Contention.

The NRC Staff originally supported New York's Contention 26. *See* NRC Staff Response to Petitions for Leave to Intervene Filed by the State of New York, Jan. 22, 2008, at 77-78. However, on March 4, 2008, which was on the eve of March 10-12, 2008, oral argument held in White Plains, New York, on the petitions filed by New York and other petitioners, NRC Staff informed the Atomic Safety and Licensing Board Panel – in the form of a "pleading letter" and not a motion – that it had changed its position based on LRA Amendment #2, and that Staff now opposed New York's contention. The State of New York filed a Joint Motion on March 5, 2008, with petitioner Riverkeeper, Inc., to strike paragraph one of the NRC Staff's "pleading letter," which set forth the Staff's change in position on Contention 26. NRC regulations provide no mechanism for the filing of Staff's letter, which essentially amends the Staff's Response to

New York's Petition, filed on January 22, 2008. As the State demonstrated in its Joint Motion, instead of filing a letter, NRC Staff should have proceeded via a motion. As of April 4, 2008, the Board has not ruled on this joint motion, although it issued an Order on April 3, 2008 (Order Relating to Wagner Letter Dated March 31, 2008) regarding another issue in this matter in which it chided a petitioner for filing a letter instead of a motion.

New York's Original Contention 26

Contention 26 asserts that the Applicant failed to account for metal fatigue on key reactor components. In its April 23, 2007, LRA, the Applicant's own analyses conclusively established that a number of key reactor components have cumulative usage factors (CUFs) of greater than 1.0 and thus exceed the upper permissible limit for CUF. *LRA Tables 4.3-13 and 4.3-14.* These components for IP2 are the pressurizer surge line piping and the RCS piping charging system nozzle. *LRA Table 4.3-13.* The components at issue for IP3 are the pressurizer surge line piping and the pressurizer surge line nozzle. *LRA Table 4.3-14.* Entergy's analysis also showed that other components in both IP2 and IP3 were narrowly under the 1.0 CUF: RCS piping charging systems nozzle for IP2 had a CUF of 0.99, and the IP3 pressurizer surge line nozzles had a CUF of 0.9612. *LRA Tables 4.3-13 and 4.3-14.* Entergy's conclusions on these components are one year old at this point, and since Unit 1 and Unit 2 has continued to operate, they must now also be presumed to have CUFs greater than 1.0.

Despite these patent exceedences of the CUF, the Applicant did not immediately identify in its April 23, 2007, LRA a plan to repair and replace those components, but instead proposed that at some unknown point in the future it would choose from one of three options: it would (1) further refine the fatigue analyses, (2) conduct an inspection program, or (3) "repair or replace the affected locations before exceeding a CUF of 1.0."

The State of New York's initial Contention 26 was based on (1) the failure of the LRA to actually propose any specific program and thus its failure to provide any details of a program, and (2) the failure of the LRA to choose option 3 - repair or replacement of the components that Entergy has already identified as exceeding the 1.0 CUF.

Supplemental Contention 26-A

Nine months after the Applicant submitted its LRA, and after New York filed its Petition raising many contentions based on the LRA, including one based on Entergy's failure to adequately account for metal fatigue as an aging management issue, Entergy submitted LRA Amendment #2. In this LRA Amendment, Entergy has

- abandoned its proposal to conduct inspections as a response to key reactor components that have a CUF of greater than 1.0;
- retained its proposal to, at some unknown point in the future, perform a "refined fatigue analyses" to account for the effects of reactor water environment;
- maintained its refusal to immediately repair or replace the key reactor components that it now knows – and has so informed the NRC – will exceed the 1.0 CUF measurements during extended operations.

LRA Amendment #2 does not change the basic premise of New York's Contention 26: that Entergy has not submitted an adequate aging plan for metal fatigue, as it is required to do pursuant to 50 C.F.R. § 54.21(c)(1)(iii).

As established in the Declaration of Dr. Richard T. Lahey, Jr., dated April 7, 2008, Entergy's continued proposal of a "more refined" reanalysis of the most fatigued-limited components in IP2 and IP3 raises more questions than answers. Entergy apparently expects that these new analyses will demonstrate that all of the most limiting CUFs are <1.0, and it appears that only if this is not so does Entergy propose to replace the most fatigue-limited components. Lahey Decl. ¶ 5.

According to Dr. Lahey, while in principle this approach may be reasonable, it is not reasonable here. Id., ¶ 6. First, Entergy has already formally submitted calculations to the Commission that, as indicated above, demonstrate that a number of components are already fatigue-limited. Entergy cannot, by fiat, expunge the record of these prior calculations – Entergy's admission on this point stands.

Second, Entergy does not provide any details on the analytical method and analysis approach it proposes to use. According to Dr. Lahey, these details are critical since, depending on the calculational method to be used, e.g., a multidimensional FEM code, and the assumptions made, an applicant can obtain almost any answer that it wishes. Id., ¶ 7. Additionally, Entergy does not indicate how its new calculational method will be benchmarked to assure its validity. Id., ¶ 8. In other words, since Entergy has not provided any data that will be used to benchmark, neither New York State nor the NRC can be assured that it is representative data and that the calculational method will be properly assessed. Id. Given that some of the most fatigue-limited components are key parts of the primary system's pressure boundary, this vagueness is unacceptable. Id. The proposed methodology, where such important calculations that are not part of the LRA are performed at some unknown point following approval of the renewal application, simply does not demonstrate that the Applicant has satisfied the required elements of 10 C.F.R. § 54.21(c)(1)(iii). Lahey Decl. ¶ 8.

New York maintains its position that Entergy's only prudent course of action is to replace these primary pressure boundary components – the pressurizer surge line piping for IP2 and IP3, the RCS piping charging system nozzle for IP2, and the pressurizer surge line nozzle for IP3 – well before the onset of extended operations. Id., ¶ 9. Entergy, however, is not proposing to take this prudent and necessary course of action. Id.

Instead, Entergy merely includes a vague description of its proposed "corrective actions":

> The program requires corrective actions including repair or replacement of affected components before fatigue usage calculations determine the CUF exceeds 1.0. Specific corrective actions are implemented in accordance with the IPEC corrective action program. Repair or replacement of the affected component(s), if necessary, will be in accordance with established plant procedures governing repair and replacement activities. These established procedures are governed by Entergy's 10 CFR 50 Appendix B QA program and meet the applicable repair or replacement requirements of the ASME Code Section XI.

LRA Amendment #2, Attachment 1 at 2. Not only is this "corrective action" proposal exceedingly vague, since Entergy does not believe that any components will exceed the 1.0 CUF once it recalculates those figures, any corrective action will occur, if at all, *during* extended operation, and not *before*. Id., ¶ 10. As New York's Petition makes clear, the most prudent way to manage aging for extended operation is to replace those affected components *now*. Id.

In conclusion, what Entergy now proposes in LRA Amendment #2 on metal fatigue merely confirms the validity of Contention 26, its relevance to aging management and license renewal, and the seriousness of the issues raised. Id., ¶ 11.

New York State's Request for Admission of Contention 26-A Satisfies NRC Regulations for Filing New or Amended Contentions

New York's request for the admission of Supplemental Contention 26-A satisfies the three requirements of 10 C.F.R. section 2.309(2) for seeking leave to amend contentions. First, the information upon which Supplemental Contention 26-A is based was not previously available to New York State when it filed its petition. 10 C.F.R. § 2.309(2)(i). Entergy's LRA Amendment #2 is dated January 22, 2008, and was posted on ADAMS on February 6, 2008. Since Entergy submitted this information more than two months after New York filed its Petition, it was not previously available to New York when the State filed its Petition.

Second, the information upon which Supplemental Contention 26-A is based is materially

different than information previously available. 10 C.F.R. § 2.309(2)(ii). As demonstrated above, and as a direct response to the Petition filed by the State of New York, Entergy has materially changed the LRA with the filing of LRA Amendment #2.

Finally, Supplemental Contention 26-A is being submitted in a timely fashion. After Entergy filed LRA Amendment #2, it did not move to dismiss New York's Contention 26 or seek summary disposition on it. Thus, New York was prepared to argue Contention 26 at the oral arguments in White Plains on March 10-13, 2008. New York's position is that with the filing of new information, in the absence of either a motion to dismiss a contention as moot or a motion for summary disposition with the filing of new information, the usual course of procedure would be for the Board to rule on the admissibility of contentions filed and to issue a scheduling order for the filing of any new or amended contentions. The Board, however, requested that New York submit a proposed date by which it would file an amended contention on metal fatigue, and New York filed a letter responding to this directive on March 17, 2008. By Order dated March 18, 2008, the Board ordered New York to file any amended contentions by April 7, 2008. Thus, pursuant to the plain language of the Board's March 18, 2008, Order, this filing is timely.

Moreover, the NRC's regulations do not provide for a definite time period within which to seek leave to file an amended or new contention – only that the filing be "timely." As demonstrated by the chronology of recent events in the prior paragraph, and in light of this Board's Order, New York's present submission is indeed timely – certainly more so than Entergy's filing of LRA Amendment #2.

For these reasons, New York respectfully requests that the Board grant its application for filing Supplemental Contention 26-A in this proceeding. Further, for the reasons set forth in Contention 26 and Supplemental 26-A, this Board should deem this contention admissible and

convene an evidentiary hearing on the merits.

Albany, New York
April 7, 2008

Respectfully submitted,

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07-858-03-LR-BD01

DECLARATION OF DR. RICHARD T. LAHEY, JR., IN SUPPORT OF THE STATE OF NEW YORK'S SUPPLEMENTAL CONTENTION 26-A

I, Richard T. Lahey, Jr., declare under penalty of perjury that the following is true and correct:

1. I am the *Edward E. Hood Professor of Engineering* at Rensselaer Polytechnic Institute (RPI) in Troy, New York, and I am an expert in matters relating to the operations, safety, and aging of nuclear power plants. I previously submitted a declaration in support of the Notice of Intention to Participate and Petition to Intervene ("Petition") filed by the State of New York in this proceeding on November 30, 2007, which sets forth my qualifications in detail. I submit this declaration in support of the State of New York's Supplemental Contention 26-A, relating to metal fatigue.

2. I assisted the State of New York in preparing Supplemental Contention 26-A. The factual statements and the expression of opinion in Supplemental Contention 26-A are based on, among other things, my best professional knowledge, my extensive professional experience in nuclear reactor technology, and my review of the applicant's License Renewal Application (LRA) dated April 23, 2007, and the Applicant's LRA Amendment #2 dated January 22, 2008.

3. As I stated in my initial declaration on this issue (New York's Contention 26), in my professional judgment, the applicant has failed to demonstrate that it has adequately accounted for the aging phenomena of metal fatigue. My professional judgment has not changed based upon my review of Entergy's LRA Amendment #2. In other words, even with the submission of LRA Amendment #2, Entergy has failed to demonstrate that it has adequately accounted for metal fatigue for the period of extended operation. I remain concerned about the potential for fatigue failure of some components which are part of the primary system's pressure boundary.

4. In LRA Amendment #2, Entergy has:

- abandoned its proposal to conduct inspections as a response to key reactor components that have a CUF of greater than 1.0;
- retained its proposal to, at some unknown point in the future, perform a "refined fatigue analyses" to account for the effects of reactor water environment; and
- maintained its refusal to immediately repair or replace the key reactor components that it now knows – and has so informed the NRC – will exceed the 1.0 CUF measurements during extended plant operations.

While I agree that Entergy should have dropped its proposal to conduct inspections as a response to the key reactor components that have a CUF >1.0, and I am pleased to see that it has taken this step, the remaining two elements continue to raise some very troubling aging management issues.

5. Entergy's continued proposal of a "more refined" re-analysis of the most fatigued-limited components in IP2 and IP3 leaves too much opportunity for Entergy to reach a manipulated and predetermined result -- namely, CUFs of <1.0 for the limiting components. Indeed, it appears that Entergy expects that these new analyses will demonstrate that all of the most limiting CUFs are <1.0, and, only if this is not so, does Entergy propose to replace the most fatigue-limited components. Unfortunately, there are too many opportunities for gaming the re-analysis, and the safety-related stakes are too high, to simply accept Entergy's unspecified new analytical approach on faith.

6. While in principle this approach may seem reasonable, it is not. Entergy has already submitted calculations to the Commission that demonstrate that a number of components are already fatigue-limited. Thus, we already have results that raise a concern about metal fatigue for these identified components. The basis for a more "refined analysis" of the current calculations simply does not exist, nor has Entergy given any reason as to why the time-tested, ASME approved standard analytical method that it previously used is no longer valid.

7. Nor does Entergy provide any details on the analytical method and approach that it will use for its "refined analysis." These details are critical since, depending on the calculational method to be used, e.g., a multidimensional FEM code, and the assumptions made, an applicant can obtain almost any answer that it wishes. This lack of detail is unacceptable because it does not allow New York State or the NRC to perform a detailed review of the LRA.

8. Additionally, Entergy does not indicate how its new calculational method will be bench-marked to assure its validity. In particular, since Entergy has not provided any data that will be used to bench-mark their new analytical model, neither New York State nor the NRC can be assured that it is appropriate data and that the calculational method will be properly assessed. Given that some of the most fatigue-limited components are key parts of the primary system's pressure boundary, this vagueness is not acceptable. This approach, where important calculations that are not part of the LRA will be performed at some unknown time following approval of the renewal application, is simply inadequate to establish that the Applicant has demonstrated that its time limited aging analyses adequately manage the effects of aging, specifically concerning metal fatigue, as required by 10 C.F.R. § 54.21(c)(1)(iii).

9. In my opinion, Entergy's only prudent course of action is to replace these limiting primary pressure boundary components – the pressurizer surge line piping for IP2 and IP3, the RCS piping charging system nozzle for IP2, and the pressurizer surge line nozzle for IP3 – well before the onset of extended operations. Entergy, however, is not proposing to take this prudent and necessary course of action.

10. Instead, Entergy merely includes a vague description of its proposed "corrective

actions":

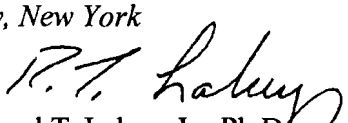
> The program requires corrective actions including repair or replacement of affected components before fatigue usage calculations determine the CUF exceeds 1.0. Specific corrective actions are implemented in accordance with the IPEC corrective action program. Repair or replacement of the affected component(s), if necessary, will be in accordance with established plant procedures governing repair and replacement activities. These established procedures are governed by Entergy's 10 CFR 50 Appendix B QA program and meet the applicable repair or replacement requirements of the ASME Code Section XI.

LRA Amendment #2, Attachment 1 at 2. This "corrective action" proposal is exceedingly vague. Moreover, since Entergy apparently does not believe that any components will exceed the 1.0 CUF limit once it recalculates those figures, any corrective action will occur, if at all, *during* extended operation, and not *before*. I find this untenable because Entergy has already submitted results to the NRC that demonstrate that a number of key reactor components have or will exceed 1.0 CUF during extended operation. In my professional opinion, the most prudent way to manage the aging phenomena of metal fatigue for extended operation is to replace the limiting components *now*.

11. In summary, Entergy's LRA Amendment #2 does not remove my concern that Entergy has failed to demonstrate that it will adequately manage metal fatigue during extended operation of the two units at Indian Point. The potential for fatigue failure of various primary system components remains a significant concern.

Pursuant to 28 U.S.C. § 1746, I declare under penalty of perjury that the foregoing is true and correct.

April 7, 2008
Troy, New York



Richard T. Lahey, Jr., Ph.D.

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PETITIONER STATE OF NEW YORK'S RESPONSE TO NRC STAFF'S CHANGE IN POSITION TO NEW YORK'S CONTENTIONS 30 AND 31

Background

In Contentions 30 and 31, the State of New York has demonstrated that the Environmental Report that Entergy filed as part of its License Renewal Application (LRA) for Indian Point Units 2 and 3 has failed to adequately analyze the environmental impacts from once-through cooling. In its Response dated January 22, 2008, NRC Staff supported these two contentions.[1] At oral argument on the petitions filed by New York and other petitioners, held in White Plains on March 10-12, 2008, NRC Staff – for the first time and without any prior written submission – informed the Board and New York that Staff changed its position on these two contentions and no longer supported them. In its Order dated March 18, 2008, this Board

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[1] Specifically, the NRC Staff stated that it did not oppose Contention 30 "to the limited extent that it challenges the adequacy of heat shock analysis provided in the ER" (NRC Staff Response to Petitions for Leave to Intervene at 85) and that it did not oppose Contention 31 "to the limited extent that it challenges the impingement and entrainment analysis provided in the ER" (Id. at 87).

authorized New York to submit a response to NRC Staff's change in position by April 7, 2008. This submission complies with that Order.

As demonstrated below, not only is the NRC Staff's amended answer without merit with respect to Entergy and the NRC's obligations under the National Environmental Policy Act (NEPA) and the NRC's regulations (10 C.F.R. § 51.53(c)), NRC Staff failed to follow NRC rules to inform the Board and other parties of its change in position.

NRC Staff Change in Position Has No Merit

Not only did NRC Staff fail to formally plead its change in position, that change in position is wholly without merit because New York's Contentions 30 and 31 are within the scope of this proceeding, as required by 10 C.F.R. § 2.309(f)(1)(iii).

NRC regulations promulgated pursuant to NEPA specifically provide that for plants with once-through cooling systems, the impacts from heat shock, impingement, and entrainment are "Category 2" impacts that must be assessed by the applicant for a license renewal (10 C.F.R. Part 51, Subpart A, Appendix B), and those impacts must be ultimately evaluated by the NRC as part of NEPA's mandate to identify and address environmental impacts and mitigation measures. NEPA § 102, 42 U.S.C. § 4332; *Baltimore Gas & Elec. Co. v. Natural Res. Def. Council, Inc.*, 462 U.S. 87, 97 (1983) (NEPA "places upon an agency the obligation to consider every significant aspect of the environmental impact of a proposed action.")

It is beyond dispute that Entergy uses a once-through cooling system that consumes 2.5 billion gallons of Hudson River water for operation of Indian Point Units 2 and 3 each day. The significant and dramatic aquatic impacts from the operation of this outmoded system are within the scope of this proceeding. The NRC's NEPA regulations require Entergy to identify and discuss all these impacts and mitigation measures in an Environmental Report submitted with the

License Renewal Application. 10 C.F.R. § 51.53(c). This regulation is designed to ensure that the applicant provides the NRC Staff with a comprehensive discussion on the environmental impacts resulting from twenty years of additional operation of a power reactor. As discussed below, Entergy's Environmental Report has failed to provide the NRC Staff and the public with an up-to-date discussion and analysis of the impacts caused by once-through cooling.

Nor can Entergy claim any protection under Clean Water Act section 316, as NRC Staff now assert. NRC regulations provide that

> If the applicant's plant utilizes once-through cooling . . . systems, the applicant shall provide a copy of current Clean Water Act 316(b) determinations and, if necessary, a 316(a) variance in accordance with 40 CFR part 125, or equivalent State permits and supporting documentation. If the applicant cannot provide these documents, it shall assess the impact of the proposed action on fish and shellfish resources resulting from heat shock and impingement and entrainment.

10 C.F.R. § 51.53(c)(3)(ii)(B) (emphasis added).

Section 316(b) provides that

> Any standard established pursuant to section 1311 of this title or section 1316 of this title and applicable to a point source shall require that the location, design, construction, and capacity of cooling water intake structures reflect the best technology available [BTA] for minimizing adverse environmental impact.

33 U.S.C. § 1326(b).

Under section 316(a), a Clean Water Act permittee can seek a variance from effluent limitations for thermal discharges if it demonstrates that its discharges "will assure the protection and propagation of a balanced, indigenous population" of aquatic resources in the receiving waterbody. 33 U.S.C. § 1326(a).

Operating in concert, these three provisions mean that in an NRC license renewal proceeding, an applicant whose plant uses a once-through cooling system can tender a current BTA determination and, if necessary, a variance from applicable thermal discharge effluent

limitations, along with all "supporting documentation," including all relevant studies and analyses which comprise the record before the state permitting agency, and not have to submit any further analyses to the NRC in support of its license renewal application. As demonstrated below, Entergy has not submitted a current BTA determination or a variance. It also has not merely submitted all the relevant "supporting documentation," but has chosen to offer its opinion about what that documentation proves and thus it cannot claim any shield that 10 C.F.R. § 51.53(c)(3)(ii)(B) may bestow.

The premise of NRC Staff's change in position is that Entergy presently has a Clean Water Act permit (known as a SPDES permit) to discharge into the Hudson River. As New York has made clear throughout this relicensing proceeding, that permit is twenty-one-years-old, is not "current" either as a matter of law or fact as required by 10 C.F.R. § 51.53(c)(3)(ii)(B), and does not adequately protect aquatic resources. That permit – extended by operation of law under the New York State Administrative Procedure Act – only serves to shield Entergy against an enforcement action for discharging without a permit. It does not mean, as NRC Staff has now apparently concluded, that the discharges comply as a matter of law, and therefore fact, with the Clean Water Act. As set forth in the new draft SPDES permit, Entergy's operations do not comply and therefore cannot be considered "current."

Although New York State believes the document submitted by Entergy, a twenty-one-year-old SPDES permit, which has been under review for sixteen years and is now proposed to be replaced with a new permit that requires the use of closed-cycle cooling, is not the equivalent of a current section 316(b) determination contemplated by the regulation, to some extent that issue is beside the point. Since Entergy voluntarily chose to offer its own view of what some of the "supporting documentation" – *i.e.* the relevant studies done over the last twenty-one or more

years – means, Entergy has brought into this proceeding the entirety of the environmental impacts of once-through cooling and the advantages of closed cycle cooling. New York State has every right to challenge those analyses and conclusions which are contained in the Environmental Report and to proffer contentions based upon the errors in Entergy's analysis. The NRC Staff, in changing its position, misses the point of the Contentions 30 and 31 and ignores the significance of the fact that Entergy has chosen to make the meaning of the relevant studies a legitimate issue for contention between Entergy and New York State.

New York is not seeking to have the NRC weigh in on the New York administrative proceeding. That proceeding is outside the jurisdiction of the ASLB. New York is seeking for the NRC to comply with its legal obligations under NEPA, which requires the NRC to assess the environmental impacts of the license renewal action, i.e., whether to issue a twenty-year license extension to Entergy for the operation of Indian Point.

Nor would the NRC be changing an effluent limitation, which it cannot do under Clean Water Act section 511, 33 U.S.C. § 1371. Rather, the NRC has an independent obligation under NEPA to consider mitigation measures. *See* 40 C.F.R. §§ 1502.14(f), 1502.16(h), 1505.2(c), 1508.25(b). Based on the data submitted by New York, mitigation should include the imposition of closed cycle cooling to replace the outmoded destructive once-through cooling at Indian Point. Indeed, a prior generation of NRC Staff did just that at Indian Point – it included cooling towers as a condition of the licenses for Units 2 and 3 and it grounded that condition in NEPA. *See Mtr. of Consol. Edison Co. of N.Y., Inc.* (Indian Point Station Unit 2 Operating License), 6 A.E.C. 751, 781-83, 1973 WL 18195 at **39-41 (1973); *Mtr. of Consol. Edison Co. of N.Y., Inc.* (Indian Point Nuclear Generating Station, Unit No. 3), 2 N.R.C. 835, 8361975 WL 20120 at **2 (1975). The substantial data generated over the succeeding years from the Hudson River Settlement

Agreement (HRSA) demonstrate that the condition of closed cycle cooling is even more compelling today.

The NRC's regulations expressly state that

> Compliance with the environmental quality standards and requirements of the Federal Water Pollution Control Act [Clean Water Act] (imposed by EPA or designated permitting states) is not a substitute for and does not negate the requirement for NRC to weigh all environmental effects of the proposed action, including the degradation, if any, of water quality, and to consider alternatives to the proposed action that are available for reducing adverse effects.

10 C.F.R. § 51.71(d), n.3. The NRC's obligation to conduct the NEPA review is informed by an operator's Environmental Report, which is a significant part of the License Renewal Application. That report must be complete and accurate. 10 C.F.R. § 54.13. As New York demonstrated in its Petition, Entergy's Environmental Report here is neither complete nor accurate and contains Entergy's view of the relevant data. *See, e.g.,* Declaration of David W. Dilks, Ph.D., ¶¶ 32-39 and Declaration of Roy A. Jacobson, Jr., ¶¶ 18-21.

The fact that Entergy went ahead and submitted an assessment of the environmental impacts of once-through cooling in its Environmental Report constitutes a waiver of any right it may have by operation of 10 C.F.R. § 51.53(c)(3)(ii)(B) to not submit that assessment. Entergy cannot have it both ways. As New York demonstrated in its Petition, supporting Declarations, and Reply, Entergy has failed to submit an accurate assessment of the dramatic and significant environmental impacts to the aquatic resources of the Hudson River.

NRC Staff's Change in Position is Procedurally Invalid

In addition to being without substantive merit, NRC Staff's belated change in position is procedurally flawed. At oral argument on March 11, 2008, NRC Staff informed the Board that it no longer supported Contentions 30 and 31 as being within the scope of license renewal. Tr.

467, 468.[2] According to NRC Staff, Entergy had not expressly stated in its Environmental Report that it qualified for or had received a Clean Water Act section 316(b) determination from New York State. Tr. 467. Moreover, Entergy provided an analysis of heat shock, impingement, and entrainment, which would not be required if the applicant qualified for a section 316(b) determination. Tr. 467. Therefore, since Entergy did provide that analysis, NRC Staff assumed that Entergy must not have qualified for the section 316(b) determination. Tr. 467.

If NRC Staff was confused up to and including the time that it submitted its January 22, 2008, Response to New York's Petition, any confusion should have been removed by the filing of Entergy's Answer on January 22, 2008, in which Entergy stated that its twenty-one-year-old SPDES permit from the State of New York constituted a Clean Water Act section 316(b) determination. Entergy Answer to New York's Petition at 180-82, 194. Regardless of this legal status, Entergy had submitted an "analysis" of heat shock, impingement, and entrainment in the Environmental Report, which in Entergy's view, ostensibly showed that its operations (which draw and discharge *2.5 billion* gallons of Hudson River water each day) do not adversely impact aquatic resources. Entergy Answer to New York's Petition at 191, 196-97. Nonetheless, NRC Staff did not inform the parties or the Board of its new understanding and appreciation of Entergy's position until oral argument on March 11, 2008 – forty-nine days later. This informal and last-minute method of informing the Board and the State of New York does not comply with the NRC rules of procedure.

What the NRC Staff should have done with its change of position on New York Contentions 30 and 31 is to file a motion to amend its January 22, 2008, response to New York's

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[2] References to "Tr." followed by a page number, are to the Transcript of the oral argument on the various petitions held in White Plains, New York, on March 10-12, 2008.

Petition. Clearly, in fairness to New York, a response that bared NRC Staff's confusion should have been issued more formally and more timely than verbally at oral argument. Changing a position in the informal manner that NRC Staff has done here is contrary to the NRC's formal pleading rules, which have been deemed "strict by design." *See Amergen Energy Co., LLC (Oyster Creek Nuclear Generating Station)*, CLI-06-24, 64 NRC 111, 118-19 (2006)). "Strict by design" is not reserved solely for petitioners in NRC proceedings – it should apply equally to all parties. Since any attempt by an intervenor to alter its position from that contained in its Petition to Intervene is severely restricted, no lesser standard should be applied to the alteration of a position by the Applicant or NRC Staff. Otherwise, the Rules of Practice would be used to unfairly prejudice the rights of the public.

Conclusion

In conclusion, NRC Staff is wrong in now claiming that the assessment of aquatic impacts from thermal discharges/heat shock, impingement, and entrainment are outside the scope of this proceeding. As demonstrated above, these significant aquatic impacts from the daily consumption of the Hudson River – intake and discharge of 2.5 billion gallons of Hudson River water – are within the scope of this proceeding, as required by 10 C.F.R. § 2.309(f)(1)(iii). Entergy, having chosen to address these impacts, is required to assess those impacts completely and accurately, which it has not done in this proceeding.

Albany, New York
April 7, 2008

Respectfully submitted,

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Hearing Docket

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Cc:	John Parker; Janice Dean; John Sipos; Mylan Denerstein
Subject:	New York State Filing in Indian Point License Renewal Case
Attachments:	NY Supp Cont #26.pdf; Lahey Decl Supp Cont 26-A.pdf; NY Response to NRC Staff Change in Position Conts #30 & 31.pdf; IP COS (4-7-08).pdf

Dear ASLB and Parties,

Attached for electronic filing and service are (1) the State of New York's Request for Admission of Supplemental Contention No. 26-A (Metal Fatigue); (2) the Declaration of Richard T. Lahey, Jr., in Support of New York's Supplemental Contention 26-A; (3) New York's Response to NRC Staff's Change in Position to New York's Contentions 30 and 31; and (4) Certificate of Service, all dated April 7, 2008.
Hard copies have also been served by regular first-class mail.

Please contact me if you have any questions about this transmission.

Very truly yours,

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