

April 21, 2008

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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

NRC STAFF'S RESPONSE TO  
RIVERKEEPER, INC.'S REQUEST FOR ADMISSION OF  
AMENDED CONTENTION TC-1 ["TC-1A"] (METAL FATIGUE)

Pursuant to the Licensing Board's Order of March 18, 2008 ("Order")<sup>1</sup>, the NRC Staff ("Staff") hereby responds to Riverkeeper, Inc.'s ("Riverkeeper") Request for Admission of Amended Contention TC-1 ("TC-1A"), concerning the issue of metal fatigue.<sup>2</sup> For the reasons set forth below, the Staff opposes the admission of Riverkeeper's Amended Contention TC-1A.

BACKGROUND

On January 22, 2008, Entergy submitted to the U.S. Nuclear Regulatory Commission ("NRC") Amendment 2 to its License Renewal Application ("LRA Amendment 2") for Indian Point Units 2 and 3.<sup>3</sup> This submitted Amendment directly affected Riverkeeper Contention TC-1, the admission of which the Staff had not opposed, in pertinent part, in its response to contentions

---

<sup>1</sup> "Order (Scheduling Briefing Regarding the Effect of License Amendment 2 on Pending Contentions)," dated March 18, 2008, at 2.

<sup>2</sup> See "Riverkeeper, Inc.'s Request for Admission of Amended Contention 6 [sic]" ("Request"), dated March 5, 2008; "Declaration of Dr. Joram Hopfenfeld in Support of Riverkeeper's Amended Contention TC-1," dated March 4, 2008.

<sup>3</sup> Entergy Letter NL-08-021, from Fred R. Dacimo, Vice President, License Renewal, to NRC Docket Control Desk, dated January 22, 2008.

filed on January 22, 2008.<sup>4</sup> On March 4, 2008, after receiving Entergy's LRA Amendment, Counsel for the Staff sent a letter<sup>5</sup> to the Licensing Board, stating the Staff's view that Riverkeeper Contention TC-1 and New York Contention 26 were moot, and that the Staff now opposes admission of those contentions. Riverkeeper subsequently filed its Amended Contention TC-1A on March 5, 2008. The Applicant filed its response in opposition to Riverkeeper's request on March 31, 2008.<sup>6</sup> Pursuant to the Board's Order, the Staff herewith files its answer to Riverkeeper's amended contention.

### DISCUSSION

#### I. Admissibility Requirements

The legal requirements governing the admissibility of contentions are well established, and currently are set forth in 10 C.F.R. § 2.309(f). The Staff has previously addressed these requirements in its response to the Petitioners' contentions (Staff Response to Petitions, at 15-25), and incorporates that discussion by reference herein. In brief, in order to be admitted, a contention must satisfy the following requirements:

(f) Contentions. (1) A request for hearing or petition for leave to intervene must set forth with particularity the contentions sought to be raised. For each contention, the request or petition must:

(i) Provide a specific statement of the issue of law or fact to be raised or controverted, . . . ;

---

<sup>4</sup> "NRC Staff's Response to Petitions for Leave to Intervene Filed by (1) Connecticut Attorney General Richard Blumenthal, (2) Connecticut Residents Opposed to Relicensing of Indian Point, and Nancy Burton, (3) Hudson River Sloop Clearwater, Inc., (4) The State of New York, (5) Riverkeeper, Inc., (6) the Town of Cortlandt, and (7) Westchester County" ("Staff Response to Petitions"), dated January 22, 2008, at 117.

<sup>5</sup> Letter from David E. Roth and Kimberly A. Sexton, Counsel for the NRC Staff, to the Licensing Board, dated March 4, 2008.

<sup>6</sup> "Answer of Entergy Nuclear Operations, Inc., to Riverkeeper's Request for Admission of Amended Contention TC-1 (Concerning Environmentally Assisted Metal Fatigue)," dated March 31, 2008.

(ii) Provide a brief explanation of the basis for the contention;

(iii) Demonstrate that the issue raised in the contention is within the scope of the proceeding;

(iv) Demonstrate that the issue raised in the contention is material to the findings the NRC must make to support the action that is involved in the proceeding;

(v) Provide a concise statement of the alleged facts or expert opinions which support the requestor's/petitioner's position on the issue and on which the petitioner intends to rely at hearing, together with references to the specific sources and documents on which the requestor/petitioner intends to rely to support its position on the issue;

(vi) In a proceeding other than one under 10 CFR 52.103, provide sufficient information to show that a genuine dispute exists with the applicant/licensee on a material issue of law or fact. This information must include references to specific portions of the application (including the applicant's environmental report and safety report) that the petitioner disputes and the supporting reasons for each dispute, or, if the petitioner believes that the application fails to contain information on a relevant matter as required by law, the identification of each failure and the supporting reasons for the petitioner's belief . . . .

10 C.F.R. § 2.309(f)(1)(i) – (vi). Further, to be admitted, contentions must satisfy the criteria in

10 C.F.R. § 2.309(f)(2). That regulation provides as follows:

(2) Contentions must be based on documents or other information available at the time the petition is to be filed, such as the application, supporting safety analysis report, environmental report or other supporting document filed by an applicant or licensee, or otherwise available to a petitioner. On issues arising under the National Environmental Policy Act, the petitioner shall file contentions based on the applicant's environmental report . . . . The petitioner may amend those contentions or add new contentions if there are data or conclusions in the NRC draft or final environmental impact statement, environmental assessment, or any supplements relating thereto, that differ significantly from the data or conclusions in the applicant's documents. Otherwise, contentions may be amended or filed after the initial filing only with leave of the presiding officer upon a showing that –

(i) The information upon which the amended or new contention is based was not previously available;

(ii) The information upon which the amended or new contention is based on materially different than information previously available; and

(iii) The amended or new contention has been submitted in a timely fashion on the availability of the subsequent information.

10 C.F.R. § 2.309(f)(2).<sup>7</sup>

## II. Amended Contention TC-1A

Riverkeeper TC-1A asserts the same contention as the originally-submitted TC-1, but offers amended support to subpart 1 thereof. Request at 2-3. TC-1A asserts that Entergy's LRA fails to satisfy 10 C.F.R. § 54.21(c)(1) in the following respects:

1. Tables 4.3-13 and 4.3-14 identify four representative reactor coolant components for which Entergy's evaluation of Time Limited Aging Analyses ("TLAAs") is facially non-compliant with the standard of 10 C.F.R. § 54.21 (c)(i)-(ii) for avoiding a demonstration, under 10 C.F.R. § 54.21 (c)(iii), that it will adequately manage the effects of aging on the intended functions of the components during the license renewal term. For these four components - pressurizer surge line piping (IP2 & IP3), the RCS piping charging system nozzle (IP2), and pressurizer surge line nozzles (IP3) - the environmentally adjusted cumulative usage factor ("CUF) estimated by Entergy exceeds the regulatory threshold for submitting an aging management program. Yet, Entergy has failed to broaden its TLAA analysis beyond the scope of the representative components identified in Tables 4.3-13 and 4.3-14 to identify other components whose CUF maybe greater than one; nor has it submitted any demonstration that it will adequately manage the aging of components with a CUF greater than one. Therefore Entergy's LRA does not satisfy 10 C.F.R. §§ 54.21(c) or (c)(iii).

2. Entergy's list of components with CUFs of less than one in Tables 4.3 -13 and 4.3-14 is incomplete, because Entergy's methods and assumptions for identifying those components are unrealistic and inadequate.

---

<sup>7</sup> The Staff does not challenge the timeliness of Riverkeeper's filing of its amended contention under 10 C.F.R. § 2.309(f)(2)(i)-(iii).

3. For a number of other components subject to the license renewal regulations, which are listed in Tables 4.3-3 through 4.3-12, Entergy has also failed to perform complete TLAAs. The TLAAs for these components are incomplete because they omit consideration of the exacerbating effects of environmental conditions on the fatigue of metal components. Therefore Entergy has failed to satisfy 10 C.F.R. § 54.21(c)(1)(i)-(ii). Nor has Entergy submitted an aging management program for these components, as required by 10 C.F.R. § 54.2 1 (c)(1)(iii).

Request at 2-3.

In support of subpart 1, Riverkeeper states that Entergy failed to explain why it is likely that CUFs that are currently calculated to be above one will likely be less than one when re-calculated. *Id.* at 4. Riverkeeper further asserts that the application fails to meet the "legal requirement" that the LRA demonstrate that the CUFs are less than one. *Id.* at 4-5. Next, Riverkeeper states that the LRA fails to address NRC guidance which requires the Applicant to "evaluate all components that are subject to the effects of aging" if representative components have CUFs above one. *Id.* at 5. Riverkeeper further alleges that the Applicant plans to perform recalculations of CUFs for fewer locations than indicated in an NRC guidance document and regulations, and that the Applicant has dropped a commitment to perform initial calculations for several locations including RHR Class 1 piping. *Id.* at 5-6. Riverkeeper states that the LRA is "unacceptably vague" about improving CUF calculations and about criteria for repairing or replacing components. *Id.* at 6-7 (*citing Entergy Nuclear Vermont Yankee L.L.C. and Entergy Nuclear Operations, Inc. (Vermont Yankee Nuclear Power Station), LBP-06-20, 64 NRC 131, 186 (2006)*).

### III. Staff Response

The Staff opposes the admission of Riverkeeper TC-1A because it fails to identify an error or omission in the application, incorrectly asserts the existence of regulatory requirements

that do not exist, and fails to recognize changes made by the Applicant in its license renewal application.

A. Riverkeeper's Assertions Concerning the Original LRA Are Moot

In its request, Riverkeeper argues over a now non-existent portion of the LRA. Riverkeeper says the application is facially non-compliant with the standard of 10 C.F.R. § 54.21(c) for failing to demonstrate, under 10 C.F.R. § 54.21(c)(iii), that it will adequately manage the effects of aging on the intended functions of the components during the license renewal term. Request at 2. Riverkeeper's failure to amend the text of its contention in response to LRA amendment 2 presents no issue because the Applicant is, in fact, proposing to manage aging pursuant to 10 C.F.R. § 54.21 (c)(iii). In this regard, LRA Amendment 2 explicitly states that 10 C.F.R. § 54.21(c)(iii) will be applied to locations in LRA Tables 4.3-13 and 4.3-14. LRA Amendment 2 at 2-3. Riverkeeper fails to present an admissible contention by failing to ground its contention in fact.

Next, in subpart 1 of Contention TC-1A, Riverkeeper states:

For these four components - pressurizer surge line piping (IP2 & IP3), the RCS piping charging system nozzle (IP2), and pressurizer surge line nozzles (IP3) - the environmentally adjusted cumulative usage factor ("CUF) estimated by Entergy exceeds the regulatory threshold for submitting an aging management program.

Again, this portion of the contention presents no issue because, as described in LRA Amendment 2, the Applicant no longer proposes to submit an AMP only if needed, but instead will apply the existing Fatigue Monitoring Program. LRA Amendment 2 at 1-2. The Applicant explicitly struck-out the language from the LRA that showed uncertainty about the possible use of an AMP without any details. *Id.* at 2. Therefore, there is no issue to be decided about whether an AMP should have been submitted, because an AMP has in fact been identified.

B. Riverkeeper Fails to Provide Regulatory Support for Its Assertions

Riverkeeper also incorrectly, and without any supporting citations to 10 C.F.R. Part 54, states that there is a "regulatory threshold" for submitting an AMP based on environmentally adjusted CUFs. Request at 2. Contrary to Riverkeeper's understanding, the regulatory requirements for submitting an AMP are embodied in 10 C.F.R. § 54.21(c); these regulations provide options for license renewal applicants to provide a list of time-limited aging analyses (TLAAs) showing "(i) the analyses remain valid for the period of extended operation; (ii) the analyses have been projected to the end of the period of extended operation; or (iii) the effects of aging on the intended functions will be adequately managed for the period of extended operation." Contrary to Riverkeeper's assertion, there is no "regulatory threshold" based on metal fatigue embodied in the regulations.

Similarly, contrary to the assertion of Riverkeeper, the Applicant has not "failed" to expand its evaluation of TLAA to determine the CUF of additional components, because there is no regulation which it has failed" to satisfy. In this regard, Riverkeeper admits in its petition that Riverkeeper is relying on guidance,<sup>8</sup> rather than regulation. Request at 5.

In LRA Amendment 2, the Applicant made it clear that, through its fatigue monitoring program, it will update of the fatigue usage calculations for the tables that are the subject of Riverkeeper's proposed contention. LRA Amendment 2 at 15. There is no basis for Riverkeeper to assert that the Applicant must take action based on non-final to-be-updated values. Even if today the Applicant expanded its evaluations, as Riverkeeper believes is necessary, the Applicant's refined fatigue analysis, to be submitted in the future, could render the expansion moot and unnecessary. Riverkeeper failed to provide any regulatory authority

---

<sup>8</sup> The Applicant, in its reply, asserts that it is following the guidance, and in accordance with the guidance, it is pre-mature to expand the evaluations because the Applicant first must complete a more refined fatigue analysis in a manner consistent with the guidance and its fatigue monitoring program. See Entergy Answer at 9-10.

that supports its premature request. Riverkeeper fails to show any omission pursuant to 10 C.F.R. § 2.309(f)(1)(vi), and its Request fails to meet the requirements of 10 C.F.R. § 2.309(f)(1)(iv).

C. Riverkeeper Misunderstands Changes in LRA

In its bases, Riverkeeper objects to the Applicant "propos[ing] to drop its commitment" to calculate CUFs for certain items identified in NUREG/CR-6260 ("Application of NUREG/CR-5999 Interim Fatigue Curves to Selected Nuclear Power Plant Components").<sup>9</sup> However, Riverkeeper's objection is based on a misreading of the original application. There was no commitment to calculate new locations; rather, the Applicant's original commitment was to "use the existing CUF to determine the environmentally adjusted CUF." See LRA Amendment 2 at 15. The portion of the amendment wherein the description in commitment changed from "NUREG/CR 6260 locations" to locations "in LRA Table 4.3-13 (IP2)<sup>[10]</sup> and LRA Table 4.3-14 (IP3)<sup>[11]</sup>" with existing fatigue analyses amounts to neither an expansion nor a contraction of the list of items. The commitment itself declares, both in its original and amended form, that it

---

<sup>9</sup> Significantly, NUREG/CR-6260 provided the following statement in its conclusion:

The best method to lower the CUF for the few worst locations appears to be fatigue monitoring. For most of the cases where the CUF exceeded 1.0, neither actual numbers of cycles that the plant is experiencing nor the magnitude of temperature differences or thermal shocks were known. Therefore, worst-case design assumptions were used. By using realistic numbers of cycles and severity of transients, we believe that the CUF could be reduced sufficiently without resorting to more detailed analysis methods. However, in some cases, for example where thermal stratification exists, a combination of fatigue monitoring and more refined analyses may be needed.

NUREG/CR-6260 at 6-5.

<sup>10</sup> See Table 4.3-13 "IP2 Cumulative Usage Factors for NUREG/CR-6260 Limiting Locations," LRA at Page 4.3-24.

<sup>11</sup> See Table 4.3-14 "IP3 Cumulative Usage Factors for NUREG/CR-6260 Limiting Locations," LRA at page 3.4-25.

applies to locations where an "existing fatigue analysis [is] valid for the period of extended operation." LRA Amendment 2 at 15 (emphasis added). Riverkeeper has apparently misread the application. Accordingly, it fails to present an admissible contention.

D. Riverkeeper Fails to Understand that Re-analysis is a Corrective Action

As described in NUREG-1801, Rev. 1, "Generic Aging Lessons Learned (GALL) Report" ("GALL Report"),<sup>12</sup> the Staff's evaluation of the adequacy of each generic aging management program in managing certain aging effects for particular structures and components is based on its review of ten program elements in each aging management program. GALL Report at 2. Those ten elements are: Scope of the Program; Preventative Actions; Parameters Monitored or Inspected; Detection of Aging Effects; Monitoring and Trending; Acceptance Criteria; Corrective Actions; Confirmation Process; Administrative Controls; and Operating Experience. *Id.* at 2-3. Acceptance criteria determine the need for corrective action. *Id.* at 3. Corrective actions are

---

<sup>12</sup> NUREG-1801 describes its purpose as follows:

The Generic Aging Lessons Learned (GALL) report contains the staff's generic evaluation of the existing plant programs and documents the technical basis for determining where existing programs are adequate without modification and where existing programs should be augmented for the extended period of operation. The evaluation results documented in the GALL report indicate that many of the existing programs are adequate to manage the aging effects for particular structures or components for license renewal without change. The GALL report also contains recommendations on specific areas for which existing programs should be augmented for license renewal. An applicant may reference the GALL report in a license renewal application to demonstrate that the programs at the applicant's facility correspond to those reviewed and approved in the GALL report and that no further staff review is required. The focus of the staff review is on the augmented existing programs for license renewal. The incorporation of the GALL report information into the NUREG-1800, "Standard Review Plan for Review of License Renewal Applications for Nuclear Power Plants," as directed by the Commission, should improve the efficiency of the license renewal process.

GALL Report at iii.

taken in response to an identified problem; until a problem has been identified, there is no need to take corrective action.

In the context of metal fatigue, the NRC explained the purpose of corrective actions, in the area of metal fatigue, stating that an acceptable AMP for metal fatigue will be one that:

[p]rovides for corrective actions to prevent the usage factor from exceeding the design code limit during the period of extended operation. Acceptable corrective actions include repair of the component, replacement of the component, and a more rigorous analysis of the component to demonstrate that the design code limit will not be exceeded during the extended period of operation. For programs that monitor a sample of high fatigue usage locations, corrective actions include a review of additional affected reactor coolant pressure boundary locations. As discussed in the appendix to this report, the staff finds the requirements of 10 CFR Part 50, Appendix B, acceptable to address the corrective actions.

NUREG-1801 at X M-1 - X M-2 (describing the elements of an acceptable AMP for Metal Fatigue of Reactor Coolant Pressure Boundary) (emphasis added).

In other words, the proposed re-analyses are treated no differently than repair or replacement. For a component that will not meet its acceptance criteria during the period of extended operation, the program described in the application may freely provide for reanalysis, then, should the re-analysis still not meet the acceptance criteria, the program may allow the applicant to attempt a repair, then, should the repair not pass muster, it may call for replacement of the component. Alternatively, the program could directly select replacement, and eliminate any need to re-analyze or repair. Another option for corrective action would be re-analysis alone, or repair alone. These are all corrective actions under an aging management program. There is no need exclusively to pre-select replacement, re-analysis or repair and exclude other options. An application is not deficient for failing to describe, with premature specificity, how a future corrective action will be performed.

E. Riverkeeper Misreads NUREG/CR-6260

Riverkeeper claims that the GALL Report requires an acceptable AMP to include fatigue calculations for "all six NUREG/CR-6260 locations." See Request at 6 (*citing* GALL at X M-1). This is a misreading of the GALL Report. Contrary to Riverkeeper's assertion, the GALL Report lays out no such bright-line rule addressed to NUREG/CR-6260. The excerpt from GALL page X.M1 "Metal Fatigue Of Reactor Coolant Pressure Boundary" shown below demonstrates that the list in NUREG/CR-6260 provides examples as guidance, and, contrary to Riverkeeper's assertions, an application should propose alternatives based on plant configuration:

The AMP addresses the effects of the coolant environment on component fatigue life by assessing the impact of the reactor coolant environment on a sample of critical components for the plant. Examples of critical components are identified in NUREG/CR-6260. The sample of critical components can be evaluated by applying environmental life correction factors to the existing ASME Code fatigue analyses. . . .

As evaluated below, this is an acceptable option for managing metal fatigue for the reactor coolant pressure boundary, considering environmental effects. Thus, no further evaluation is recommended for license renewal if the applicant selects this option under 10 CFR 54.21(c)(1)(iii) to evaluate metal fatigue for the reactor coolant pressure boundary.

Evaluation and Technical Basis

. . .

5. Monitoring and Trending: The program monitors a sample of high fatigue usage locations. This sample is to include the locations identified in NUREG/CR-6260, as minimum, or propose alternatives based on plant configuration.

Finally, in support of subpart 1 of Contention TC-1A, Riverkeeper states that the application omits any demonstration that the Applicant will adequately manage the aging of components with a CUF greater than one. Riverkeeper's assertion fails because it is facially incorrect and untrue. LRA Amendment 2 is addressed explicitly at managing aging; it clearly

states throughout that re-calculation, repair or replacement will be used. See, e.g., LRA Amendment at 2. Regulatory Commitment 33, included as part of LRA Amendment 2, repeats this approach. *Id.* LRA Amendment 2 at 15. Riverkeeper claims that the LRA is vague about methodology for recalculations and criteria for repair or replacement and that there is no information about how the Applicant "will develop" a methodology for calculating CUFs shows that Riverkeeper fundamentally misunderstands what the Applicant proposes. The Applicant has not stated that it is developing its own methodology; rather, it states that it may perform "An analysis using an NRC-approved version of the ASME code or NRC-approved alternative (e.g., NRC-approved code case)" to determine CUFs. *Id.* at 5. Riverkeeper's complaint that the Applicant has failed to show why it is likely that refined analyses will produce CUFs below one lacks any regulatory support. See Request at 4. Under Riverkeeper's view that the refined analyses must be less than one, at this time, would render 10 C.F.R. 54.21(c)(iii) meaningless, and would preclude licensees from being allowed to manage the effects of aging by, for instance, future repair or replacement prior to entering the period of extended operation.

F. Repair or Replacement Criterion is Clearly Present

There is no basis for Riverkeeper's assertion that the criterion for repair or replacement is vague. Request at 7. The criterion for repair or replacement is plainly stated in the LRA Amendment 2: the Applicant committed to repair or replace before exceeding a CUF of 1.0. Riverkeeper fails to explain why it considers how this criterion of a CUF of 1.0 to be "vague."

G. An Application May Include New Commitments

Riverkeeper asserts that the LRA is insufficient to presume that the Applicant's corrective actions will be performed. Request at 7. The "persuasive authority"<sup>13</sup> which

---

<sup>13</sup> Entergy Nuclear Vermont Yankee L.L. C. and Entergy Nuclear Operations, Inc. (Vermont Yankee Nuclear Power Station), LBP-06-20, 64 NRC 131, 186 (2006).

Riverkeeper continues to rely on fails to support the admission of Contention TC-1A.

Riverkeeper fails to acknowledge that LRA Amendment 2 removed the uncertainty about how the Applicant might address the TLAAAs for metal fatigue, which the Board in Vermont Yankee found admissible. Instead, in LRA Amendment 2, the Applicant is not summarizing future options, but has elected to manage the effects of aging, and has enhanced its proposed commitment.

In promulgating the license renewal rules in 1991 (56 Fed. Reg. 64,943 ("Nuclear Power Plant License Renewal")), the Commission clearly accepted the use of new commitments to monitor, manage, and *correct* age-related degradation unique to license renewal. On this topic, the Commission stated that the most fundamental issue about license renewal rulemaking was what standards and scope of review should apply to license renewal decisions. 56 Fed. Reg. 64,943, 64,945. The Commission stated that new commitments were an acceptable licensing basis:

(4) The licensing basis for a nuclear power plant during the renewal term will consist of the current licensing basis and new commitments to monitor, manage, and correct age-related degradation unique to license renewal, as appropriate. The current licensing basis includes all applicable NRC requirements and licensee commitments, as defined in the rule.

56 Fed. Reg. 64,943, 64,946.

In revisiting the License Renewal Rules in 1995, the Commission again stated that commitments may be acceptable:

In addition, the Commission concludes that, for the license renewal review, consideration of written commitments only need encompass those commitments that concern the capability of systems, structures, and components, identified in §54.21(a), integrated plant assessment and §54.21(c) time-limited aging analyses, to perform their intended functions, as delineated in § 54.4(b).

60 Fed. Reg. 22,461, 22,473 ("Nuclear Power Plant License Renewal; Revisions").

In discussing what an applicant was to provide for time-limited aging analyses, the Commission stated that it requires an applicant to "[j]ustify that the effects of aging will be adequately managed for the period of extended operation if an applicant cannot or chooses not to justify or extend an existing time-limited aging analysis." 60 Fed. Reg. 22,461, 22,480. As discussed below, the Staff provided example guidance in its SRP-LR<sup>14</sup> on how to perform this justification, which clearly shows that commitments are an acceptable method to satisfy the regulation. Further, it shows that the applicant may commit to performing actions in the future to show that the effects of aging will be managed. Specifically, the SRP-LR gives the following example for an acceptable implementation schedule for an applicant to perform a Metal Fatigue TLAA Evaluation for 10 CFR 54.21(c)(1)(iii):

An applicant need not incorporate the implementation schedule into its FSAR. However, the reviewer should verify that the applicant has identified and committed in the license renewal application to any future aging management activities to be completed before the period of extended operation. The staff expects to impose a license condition on any renewed license to ensure that the applicant will complete these activities no later than the committed date.

---

<sup>14</sup> NUREG-1800, Rev. 1, "Standard Review Plan for Review of License Renewal Applications for Nuclear Power Plants" ("SRP-LR"). The SRP-LR describes its purpose as follows:

The Standard Review Plan for Review of License Renewal Applications for Nuclear Power Plants (SRP-LR) provides guidance to Nuclear Regulatory Commission (NRC) staff reviewers in the Office of Nuclear Reactor Regulation (NRR). These reviewers perform safety reviews of applications to renew nuclear power plant licenses in accordance with Title 10 of the Code of Federal Regulations (CFR) Part 54. The principal purposes of the SRP-LR are to ensure the quality and uniformity of staff reviews and to present a well-defined base from which to evaluate applicant programs and activities for the period of extended operation. The SRP-LR is also intended to make information about regulatory matters widely available, to enhance communication with interested members of the public and the nuclear power industry, and to improve their understanding of the staff review process.

SRP-LR at 4.3-10 ("Table 4.3-2. Example of FSAR Supplement for Metal Fatigue TLAA Evaluation").

The Staff's guidance in the SRP-LR is consistent with the Commission's rulemaking: An applicant may use new commitments for future aging management activities for metal fatigue, to meet the requirements of 10 C.F.R. 54.21(c)(1)(iii).

In accordance with these principles, Riverkeeper's assertions fail to identify an omission from the application. In this case, the Applicant's Commitment 33, to perform certain corrective actions prior to the period of extended operation, is sufficient for the contents of an application. Riverkeeper amended contention TC-1A fails to meet the requirements of 10 C.F.R. 2.309(f)(1)(vi), in that it fails to demonstrate that the application omits required information.

Finally, regarding subparts 2 and 3 of Riverkeeper TC1A, Riverkeeper, provides no additional support to those subparts. The Staff had originally opposed the admission of subparts 2 and 3 of Riverkeeper's original TC-1.<sup>15</sup> Riverkeeper acknowledges that its amended support was limited to subpart 1. Accordingly, the information in the amended contention, by design, fails for subparts 2 and 3 to meet the requirements of 2.309(f)(1)(ii)-(vi), and does not support admissibility, and the Staff continues to oppose admission of subparts 2 and 3 of TC-1.

---

<sup>15</sup> See Staff Response to Petitions, at 117-118 (referring to subparts 2 and 3 as TC1.2 and TC1.3.)

CONCLUSION

For the reasons set forth above, Riverkeeper Amended Contention TC-1A fails to meet the strict admissibility standards of 10 C.F.R. 2.309. It fails to identify any error or omission in the application, and lacks the requisite regulatory bases to support its admission. Further, the contention is based upon a misreading and/or misunderstanding of the application.

Riverkeeper's request for the admission of Amended Contention TC-1A should therefore be denied.

Respectfully submitted,

*/RA/*

David E. Roth  
Counsel for NRC Staff

Dated at Rockville, MD  
this 21<sup>st</sup> day of April 2008

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing "NRC STAFF'S RESPONSE TO RIVERKEEPER, INC.'S REQUEST FOR ADMISSION OF AMENDED CONTENTION TC-1 ["TC-1A"] (METAL FATIGUE)," dated April 21, 2008, have been served upon the following through deposit in the NRC's internal mail system, with copies by electronic mail, as indicated by an asterisk, or by deposit in the U.S. Postal Service, as indicated by double asterisk, with copies by electronic mail, this 21<sup>st</sup> day of April, 2008:

Lawrence G. McDade, Chair\*  
Atomic Safety and Licensing Board Panel  
Mail Stop - T-3 F23  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555-0001  
E-mail: [LGM1@nrc.gov](mailto:LGM1@nrc.gov)

Office of Commission Appellate  
Adjudication\*  
U.S. Nuclear Regulatory Commission  
Mail Stop: O-16G4  
Washington, DC 20555-0001  
E-mail: [OCAAMAIL@nrc.gov](mailto:OCAAMAIL@nrc.gov)

Dr. Richard E. Wardwell\*  
Atomic Safety and Licensing Board Panel  
Mail Stop - T-3 F23  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555-0001  
E-mail: [REW@nrc.gov](mailto:REW@nrc.gov)

Office of the Secretary\*  
Attn: Rulemaking and Adjudications Staff  
Mail Stop: O-16G4  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001  
E-mail: [HEARINGDOCKET@nrc.gov](mailto:HEARINGDOCKET@nrc.gov)

Dr. Kaye D. Lathrop\*  
Atomic Safety and Licensing Board Panel  
190 Cedar Lane E.  
Ridgway, CO 81432  
E-mail: [KDL2@nrc.gov](mailto:KDL2@nrc.gov)

Zachary S. Kahn\*  
Law Clerk  
Atomic Safety and Licensing Board Panel  
Mail Stop – T-3 F23  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001  
E-mail: [ZXK1@nrc.gov](mailto:ZXK1@nrc.gov)

Atomic Safety and Licensing Board Panel  
U.S. Nuclear Regulatory Commission  
Mail Stop: T-3 F23  
Washington, DC 20555-0001  
- VIA NRC INTERNAL MAIL ONLY

Marcia Carpentier\*  
Law Clerk  
Atomic Safety and Licensing Board  
Mail Stop: T-3 E2B  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001  
(E-mail: [Marcia.Carpentier@nrc.gov](mailto:Marcia.Carpentier@nrc.gov))

William C. Dennis, Esq.\*\*  
Assistant General Counsel  
Entergy Nuclear Operations, Inc.  
440 Hamilton Avenue  
White Plains, NY 10601  
E-mail: [wdennis@entergy.com](mailto:wdennis@entergy.com)

Kathryn M. Sutton, Esq.\*\*  
Paul M. Bessette, Esq.  
Martin J. O'Neill, Esq.  
Morgan, Lewis & Bockius, LLP  
1111 Pennsylvania Avenue, NW  
Washington, D.C. 20004  
E-mail: [ksutton@morganlewis.com](mailto:ksutton@morganlewis.com)  
E-mail: [pbessette@morganlewis.com](mailto:pbessette@morganlewis.com)  
E-mail: [martin.o'neill@morganlewis.com](mailto:martin.o'neill@morganlewis.com)

Michael J. Delaney, Esq.\*\*  
Vice President – Energy Department  
New York City Economic Development  
Corporation (NYCDEC)  
110 William Street  
New York, NY 10038  
E-mail: [mdelaney@nycedc.com](mailto:mdelaney@nycedc.com)

Susan H. Shapiro, Esq.\*\*  
21 Perlman Drive  
Spring Valley, NY 10977  
E-mail: [mbs@ourrocklandoffice.com](mailto:mbs@ourrocklandoffice.com)

Arthur J. Kremer, Chairman\*\*  
New York Affordable Reliable Electricity  
Alliance (AREA)  
347 Fifth Avenue, Suite 508  
New York, NY 10016  
E-mail: [ajkremer@rmfpc.com](mailto:ajkremer@rmfpc.com)  
[kremer@area-alliance.org](mailto:kremer@area-alliance.org)

John LeKay\*\*  
FUSE USA  
351 Dyckman Street  
Peekskill, NY 10566  
E-mail: [fuse\\_usa@yahoo.com](mailto:fuse_usa@yahoo.com)

Manna Jo Greene\*\*  
Hudson River Sloop Clearwater, Inc.  
112 Little Market Street  
Poughkeepsie, NY 12601  
E-mail: [Mannajo@clearwater.org](mailto:Mannajo@clearwater.org)

Justin D. Pruyne, Esq.\*\*  
Assistant County Attorney  
Office of the Westchester County Attorney  
148 Martine Avenue, 6<sup>th</sup> Floor  
White Plains, NY 10601  
E-mail: [jdp3@westchestergov.com](mailto:jdp3@westchestergov.com)

Daniel E. O'Neill, Mayor\*\*  
James Seirmarco, M.S.  
Village of Buchanan  
Municipal Building  
Buchanan, NY 10511-1298  
E-mail: [vob@bestweb.net](mailto:vob@bestweb.net)

John J. Sipos, Esq.\*\*  
Charlie Donaldson, Esq.  
Assistants Attorney General  
New York State Department of Law  
Environmental Protection Bureau  
The Capitol  
Albany, NY 12224  
E-mail: [john.sipos@oag.state.ny.us](mailto:john.sipos@oag.state.ny.us)

Joan Leary Matthews, Esq.\*\*  
Senior Attorney for Special Projects  
New York State Department of  
Environmental Conservation  
Office of the General Counsel  
625 Broadway, 14<sup>th</sup> Floor  
Albany, NY 12233-1500  
E-mail: [jmatthe@gw.dec.state.ny.us](mailto:jmatthe@gw.dec.state.ny.us)

Diane Curran, Esq.\*\*  
Harmon, Curran, Spielberg & Eisenberg,  
LLP  
1726 M Street, NW, Suite 600  
Washington, D.C. 20036  
E-mail: [dcurran@harmoncurran.com](mailto:dcurran@harmoncurran.com)

Robert Snook, Esq.\*\*  
Office of the Attorney General  
State of Connecticut  
55 Elm Street  
P.O. Box 120  
Hartford, CN 06141-0120  
E-mail: [robert.snook@po.state.ct.us](mailto:robert.snook@po.state.ct.us)

Daniel Riesel, Esq.\*\*.  
Thomas F. Wood, Esq.  
Ms. Jessica Steinberg, J.D.  
Sive, Paget & Riesel, P.C.  
460 Park Avenue  
New York, NY 10022  
E-mail: [driesel@sprlaw.com](mailto:driesel@sprlaw.com)  
[jsteinberg@sprlaw.com](mailto:jsteinberg@sprlaw.com)

Ms. Nancy Burton\*\*  
147 Cross Highway  
Redding Ridge, CT 06876  
E-mail: [nancyburtonct@aol.com](mailto:nancyburtonct@aol.com)

Mylan L. Denerstein, Esq.\*\*  
Janice A. Dean, Esq.  
Executive Deputy Attorney General,  
Social Justice  
Office of the Attorney General  
of the State of New York  
120 Broadway, 25<sup>th</sup> Floor  
New York, NY 10271  
E-mail: [mylan.denerstein@oag.state.ny.us](mailto:mylan.denerstein@oag.state.ny.us)

Victor Tafur, Esq.\*\*  
Phillip Musegaas, Esq.  
Riverkeeper, Inc.  
828 South Broadway  
Tarrytown, NY 10591  
E-mail: [phillip@riverkeeper.org](mailto:phillip@riverkeeper.org)  
[vtafur@riverkeeper.org](mailto:vtafur@riverkeeper.org)

Richard L. Brodsky, Esq.\*\*  
5 West Main St.  
Elmsford, NY 10523  
E-mail: [brodskr@assembly.state.ny.us](mailto:brodskr@assembly.state.ny.us)  
[richardbrodsky@msn.com](mailto:richardbrodsky@msn.com)

Elise N. Zoli, Esq.\*\*  
Goodwin Procter, LLP  
Exchange Place  
53 State Street  
Boston, MA 02109  
E-mail: [ezoli@goodwinprocter.com](mailto:ezoli@goodwinprocter.com)

Sarah L. Wagner, Esq.\*\*  
Legislative Office Building, Room 422  
Albany, NY 12248  
E-mail: [sarahwagneresq@gmail.com](mailto:sarahwagneresq@gmail.com)

John Louis Parker, Esq.\*\*  
Office of General Counsel, Region 3  
New York State Department of  
Environmental conservation  
21 South Putt Corners Road  
New Paltz, NY 12561-1620  
E-mail: [jlparker@gw.dec.state.ny.us](mailto:jlparker@gw.dec.state.ny.us)

**/RA/**

---

David E. Roth  
Counsel for NRC Staff