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**UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION**

Before the Atomic Safety and Licensing Board

In the Matter of)	
)	
Entergy Nuclear Vermont Yankee, LLC)	Docket No. 50-271-LR
and Entergy Nuclear Operations, Inc.)	ASLBP No. 06-849-03-LR
)	
(Vermont Yankee Nuclear Power Station))	

ENTERGY'S REPLY TO RESPONSES TO LICENSING BOARD'S QUESTIONS

Entergy Nuclear Vermont Yankee, LLC and Entergy Nuclear Operations, Inc. (collectively "Entergy") hereby replies to the answers of the other parties in this proceeding to the questions posed by the Atomic Safety and Licensing Board in its Order dated June 27, 2008 ("Order").

I. REPLY TO RESPONSES ON ISSUES 1A AND 1B

A. ENTERGY HAS APPROPRIATELY COMMITTED TO USE AN AGING MANAGEMENT PROGRAM PURSUANT TO 10 C.F.R. § 54.21(c)(1)(iii)

Entergy has committed to managing the effects of aging due to fatigue of Class 1 components through the Vermont Yankee Nuclear Power Station ("VY") Fatigue Monitoring Program, to be implemented under 10 C.F.R. § 54.21(c)(1)(iii). Environmentally assisted fatigue ("EAF") analysis is part of the VY Fatigue Monitoring Program. Both the Vermont Department of Public Service ("DPS") and the New England Coalition, Inc. ("NEC") appear to be confused by the fact that under Entergy's aging management program under Amendment 3 to the LRA (ADAMS Accession No. ML061920284), Entergy stated that there were three separate options for managing a location where a CUF of 1.0 may be exceeded: "(1) further refinement of the fatigue analyses . . . ; (2) management of fatigue at the affected locations by an inspection program that has been reviewed and approved by the NRC . . . ; (3) repair or replacement of the

affected locations” Each of these options, however, was a corrective action that Entergy may exercise under its 10 C.F.R. § 54.21(c)(1)(iii) aging management program. The options do not relate to the other two approaches permitted under 10 C.F.R. §§ 54.21(c)(1)(i) and (ii).

Both NEC and DPS appear to base many of their arguments on the misperception that VY’s EAF analysis program is a TLAA and is subject to 10 C.F.R. § 54.21(c)(1)(ii). See, e.g., NEC Brief at 2-4; DPS Brief at 2-4. For example, NEC asserts that interpreting 10 C.F.R. § 54.21(c)(1)(iii) to allow an aging management program to include a “TLAA demonstration” would collapse 10 C.F.R. §§ 54.21(c)(i) and (ii) into (iii). NEC Brief at 4. This is simply not the case as stated in the rule (see Entergy Brief at 2-3) or with respect to the aging management program Entergy has committed to use during the period of extended operations, which includes refined analyses as one of its corrective action options. Id. at 3-5. Each of the three alternatives under the license renewal rule remains separate, independent and viable. Further, EAF analysis is not a TLAA per se. The fatigue analyses that are in the current licensing basis, which do not include environmental adjustment factors, are the TLAAs.

B. AN AGING MANAGEMENT PROGRAM UNDER 10 C.F.R. § 54.21(c)(1)(iii) MAY INCLUDE ANALYSES TO BE CONDUCTED AFTER THE LICENSE IS RENEWED

DPS and NEC misread 10 C.F.R. § 54.21(c)(1) by imposing requirements that do not exist in the regulation. Both incorrectly argue that an aging management program under 10 C.F.R. § 54.21(c)(1)(iii) cannot include analyses as part of the aging management program. See NEC Brief at 3-6; DPS Brief at 2-6. DPS asserts that:

In addition, 10 C.F.R. § 54.21(c) requires that the LRA “contain . . . an evaluation of time-limited aging analyses” and that an applicant “demonstrate” that analyses have been conducted properly or, if no analyses are required, the effects of aging will be adequately managed.

DPS Brief at 2. NEC likewise asserts: “The validation or projection of the TLAA cannot be performed as a component of the aging management plan after the renewed license is issued.”

NEC Brief at 3.

Aside from the fact that both of these arguments are premised on the misunderstanding that the EAF analysis is a TLAA, both arguments also misconstrue how an aging management program works under 10 C.F.R. § 54.21(c)(1)(iii). DPS misstates what the license renewal rule requires. The license renewal rule neither requires that an applicant demonstrate “analyses have been conducted properly” before a license is renewed, nor limits aging management programs to cases where “no analyses are required.”

Neither the actual text of the rule nor the explanation of the rule in the Statement of Considerations makes the distinction that NEC and DPS try to create. Nor does the performance of analyses as part of an aging management program change which provision of 10 C.F.R. § 54.21(c)(1) is applicable, as NEC asserts. NEC Brief at 8. The Statement of Considerations makes it clear that an applicant may demonstrate that the effects of aging through three separate and independent options, one of which is 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 (May 8, 1995) (emphasis added).

This does not mean that there cannot be analyses as part of the aging management program. To the contrary, Entergy has addressed metal fatigue by establishing a Fatigue Monitoring Program consistent with Section X.M1 of the GALL Report, as discussed in the Section 4.3 and Section B.1.11 of the LRA and the amendments thereto. The analyses that will be conducted do not, as NEC misstates, permit an applicant to “to rely on an aging management

program in its license renewal application, but later perform a TLAA demonstration and suspend the aging management program.” NEC Brief at 8. Entergy’s commitment to monitor fatigue by tracking transient cycles and taking corrective action if a CUF of 1 is exceeded will continue regardless of the outcome of the refined and confirmatory analyses. NEC’s and DPS’ assertions that the analysis must be completed to determine whether a license renewal is appropriate demonstrate their misunderstanding of the role of the analysis in the aging management program. The results of the analysis will not be determinative of whether a license renewal should be granted, but what further actions will be taken to adequately manage aging. As discussed above, refined calculations are one of three corrective action options to prevent the usage factor from exceeding the code design limit that are part of Entergy’s 10 C.F.R. § 54.21(c)(1)(iii) aging management program. See also, Gall Report at X M-1 to X M-2. The aging management program, contrary to NEC’s assertion, is never suspended, but continues through the period of extended operations regardless of the results of the analyses.

C. A LICENSE COMMITMENT TO CONDUCT CERTAIN ANALYSES AS PART OF AN AGING MANAGEMENT PROGRAM IS APPROPRIATE

NEC and DPS both assert that a license commitment to conduct further analyses before the period of extended operation, but after the renewed license is granted, is inappropriate. NEC asserts that a license commitment to conduct additional analyses inappropriately does not allow a petitioner to challenge the validity “of an applicant’s TLAA methodology.” See NEC Brief at 7. DPS raises the same issue when it asserts that “[i]f all that were required were the general commitment to do the required analyses, no reason would exist for NRC Staff to review what Entergy will be doing.” DPS Brief at 5-6.

Again, both of these assertions indicate a misunderstanding of the nature of the commitments made by Entergy. The license commitment in Amendment 35 to the LRA

specifies the kind of analysis to be conducted, how it will be conducted, and what other kinds of corrective action may be taken. If any petitioner believes that the analysis or how it is conducted is not sufficient, they have the opportunity to challenge the use of the analysis as part of the aging management program and litigate that challenge in the license renewal proceeding. If the analysis is found to be an adequate part of the aging management program, the fact that the analysis will be conducted after the license is renewed is immaterial. If the analysis is an adequate part of the aging management program, there will be no outstanding safety issues needed to be resolved.¹

Moreover, the reason why Entergy performed the Option 1 analyses prior to the hearing in this proceeding is so that the methodology would be clearly known – so that the details of the program could be addressed at this time, rather than litigating future actions in the abstract. The fact that Entergy performed Option 1 analyses and resolved NRC Staff concerns with the methodology cannot now somehow render the programmatic approach legally impermissible.

II. REPLY TO RESPONSES ON ISSUE 2

Entergy's flow-accelerated corrosion ("FAC") program incorporates by reference and adopts the FAC program set forth in the Generic Aging Lessons Learned ("GALL") Report, NUREG-1801. Section B.1.13 of the LRA explicitly states, [t]he Flow-Accelerated Corrosion Program at VYNPS is consistent with the program description in NUREG-1801, Section XI.M17, Flow-Accelerated Corrosion" and identifies the exceptions and enhancements to that section as "None." LRA at B-47. Thus, contrary to NEC's assertion that there is an inadequate description of the FAC program in the LRA (NEC Brief at 8), the VYNPS FAC Program is

¹ Should any person believe that the analyses, when they are conducted, do not comply with the licensing commitments, that person has the ability to raise the issue of compliance with a license commitment through a 10 C.F.R. § 2.206 petition.

specified in the GALL Report and EPRI NSAC-202L, which is referenced in the GALL Report FAC Program. Such reference is sufficient to render the program specific.

Both NEC and DPS assert that the “demonstration” required by the Commission’s regulations require greater specificity than provided in the LRA. DPS Brief at 8-12; NEC Brief at 8-9. These arguments, however, ignore the fact that the Commission’s regulations expressly provide for incorporation by reference. 10 C.F.R. § 54.17(e). Nowhere in their briefs (or in any admitted contention) do NEC or DPS explain how the FAC program set forth in the GALL Report fails to provide enough specificity concerning the VYNPS FAC program. Contrary to DPS’ summary assertion that the “completeness of the LRA” was raised as a contention by a party, the completeness of the LRA was not raised as a contention by anyone, nor could such a contention be admissible even if it had been.² Because neither NEC nor DPS raised the adequacy of the GALL Report FAC program as an adequate part of the aging management program, the issue is outside the scope of the license renewal proceeding. See Entergy Brief at 8.

In any case, Entergy has demonstrated that its FAC program will be adequate as part of the aging management program by, among other things, incorporating by reference the experience and data concerning aging management programs summarized in the GALL Report. See Entergy Brief at 9-12. The GALL Report presents programs that have been demonstrated to be adequate as part of an aging management program. See, e.g., SECY-01-0074, Memorandum from W. Travers to Commissioners, “Approval to Publish Generic License Renewal Guidance

² As the Commission has emphasized, the contention rule bars contentions where petitioners have what amounts only to generalized suspicions that they hope to substantiate later, or simply a desire for more time and more information in order to identify a genuine material dispute for litigation. Duke Energy Corp. (McGuire Nuclear Station, Units 1 and 2), CLI-03-17, 58 N.R.C. 419, 424 (2003). NRC pleading standards require a petitioner to read the pertinent portions of the license application, including the safety analysis report and the environmental report, state the applicant’s position and the petitioner’s opposing view, and explain why it has a disagreement with the applicant. 54 Fed. Reg. at 33,170; Millstone, CLI-01-24, 54 N.R.C. at 358. If the petitioner does not believe these materials address a relevant issue, the petitioner must “explain why the application is deficient.” 54 Fed. Reg. at 33,170; Palo Verde, CLI-91-12, 34 N.R.C. at 156.

Documents” at 4-5 (Apr. 26, 2001) (ADAMS Accession No. ML010990201). As such, it is entitled to special weight. Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), CLI-01-22, 54 N.R.C. 255, 264 (2001) (“Where the NRC develops a guidance document to assist in compliance with applicable regulations, it is entitled to special weight.”)

NEC cites Florida Power and Light Company (Turkey Point Nuclear Generating Plant), CLI-01-17, 54 N.R.C. 3, 8 (2001) as setting forth the level of demonstration that is required of a LRA. NEC Brief at 8-9. The very language NEC quotes, however, supports Entergy’s argument: that an aging management program, such as that specified in the GALL Report, is sufficient to demonstrate that aging will be adequately managed:

Applicants must identify any additional actions; i.e., maintenance, replacement of parts, etc., that will need to be taken to manage adequately the detrimental effects of aging. *Id.* Adverse aging effects generally are gradual and thus can be detected by programs that ensure sufficient inspections and testing. [“Nuclear Power Plant License Renewal; Revisions,” 60 Fed. Reg. 22,461, 22,475 (May 8, 1995)]

Id. at 8. This is exactly what the VYNPS FAC program (and other aging management programs) do.

The Commission further explains that the focus of license renewal adjudicatory hearings are the same as the scope of the Staff review:

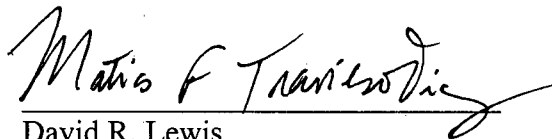
In sum, our license renewal safety review seeks to mitigate the “detrimental effects of aging resulting from operation beyond the initial license term.” 60 Fed. Reg. at 22,463. To that effect, our rules “focus[] the renewal review on plant systems, structures, and components for which current [regulatory] activities and requirements may not be sufficient to manage the effects of aging in the period of extended operation.” *Id.* at 22,469 (emphasis added). Adjudicatory hearings in individual license renewal proceedings will share the same scope of issues as our NRC Staff review, for our hearing process (like our Staff’s review) necessarily examines only the questions our safety rules make pertinent.

Id. at 10 (footnote omitted). The Commission has stated that the GALL Report was intended to focus staff review in the standard review plan on areas where existing programs should be augmented, as described in SECY-99-148, to provide credit for existing programs for license

renewal. Memorandum from A Vietti-Cook to W. Travers, "Staff Requirements - SECY-99-148 - Credit for Existing Programs for License Renewal" (Aug. 27, 1999) (ADAMS Accession No. ML003751930). Moreover, "when applicants state that their aging management programs are bounded by the GALL programs, the staff's review will shift from reviewing each program in detail to verifying the applicant's assertion." SECY-01-0074 at 4.

In short, NEC and DPS had the opportunity to raise their concerns regarding Entergy's compliance with, among others, the GALL Report FAC program. They have not raised any issue with respect to the adequacy of the GALL Report FAC program itself. Entergy's demonstration that the VYNPS FAC program complies with the GALL Report FAC program also demonstrates that it has an adequate FAC management program.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read "Matias F. Travieso-Diaz", written over a horizontal line.

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Dated: July 15, 2008

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CERTIFICATE OF SERVICE

I hereby certify that copies of "Entergy's Reply to Responses to Licensing Board's Questions" were served on the persons listed below by deposit in the U.S. Mail, first class, postage prepaid, and where indicated by an asterisk by electronic mail, this 15th day of July, 2008.

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