



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION I  
475 ALLENDALE ROAD  
KING OF PRUSSIA, PA 19406-1415

March 20, 2012

Ms. Sarah Hofmann  
Deputy Commissioner  
Department of Public Service  
112 State Street  
Montpelier, VT 05620-2601

Dear Ms. Hofmann:

I am responding to your letter of December 23, 2011, concerning issues identified in a U.S. Nuclear Regulatory Commission (NRC) inspection report issued December 22, 2011 (ADAMS Accession No. ML113560064). In the inspection report, we documented a question related to the licensee's commitment change process on how license renewal commitments were changed at Vermont Yankee when the commitment also appeared to be a requirement. Because my staff had questions at the end of the inspection, the NRC staff discussed the issues we had identified with the licensee in January 2012 and with our headquarters staff shortly thereafter. Our final resolution is documented in NRC Inspection Report No. 05000271/2012008 (ADAMS Accession No. ML12103A406), which states that License Condition No. 3.Q makes the list of license renewal commitments obligations or requirements (NUREG Safety Evaluation Report Supplement No. 2 Appendix A).

On January 20 and March 8, 2012, we briefed you on the information you requested. As a result of that briefing you indicated your agreement with our planned approach to respond to your letter shortly after we issued the team inspection report that followed up on the issues noted in the fall 2011 inspection. The enclosure contains our response to those questions. The enclosure includes a short introduction section regarding how regulatory commitments fit into the overall hierarchical structure of licensing basis information for a nuclear power plant. In addition, the introduction provides some general information on the license renewal process. This information is provided to help ensure a common understanding of the terms and processes discussed in the responses to your questions.

I hope you find this information useful and responsive to your questions. Please contact me or Richard Conte of my staff (610-337-5183) if you have any additional questions or comments.

Sincerely,

A handwritten signature in black ink, appearing to read "C. G. Miller".

Christopher G. Miller, Director  
Division of Reactor Safety

Enclosure:  
Response to Question in State of Vermont  
Letter of December 23, 2011

cc w/encl: Distribution via ListServ

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/RA/

Christopher G. Miller, Director  
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 Distribution: See next page

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## ENCLOSURE

### RESPONSE TO QUESTION IN STATE OF VERMONT LETTER OF DECEMBER 23, 2011

#### Introduction

The licensing bases for a nuclear power plant can be represented by a few categories of information that form a hierarchical structure in terms of associated change controls and reporting requirements. The categories in this hierarchy are obligations, mandated licensing bases documents, and regulatory commitments, which are defined as follows:

- (1) Obligations - conditions or actions that are legally binding requirements imposed on licensees through applicable rules, regulations, orders, and licenses (including technical specifications and license conditions). The imposition of obligations (sometimes referred to as regulatory requirements) during routine interactions with licensees should be reserved for matters that satisfy the criteria of Section 50.36 of Title 10 of the *Code of Federal Regulations* (10 CFR) or are otherwise found to be of high safety or regulatory significance. The major distinction between obligations and other parts of the licensing bases is that changes generally cannot be made without prior U.S. Nuclear Regulatory Commission (NRC) approval.
- (2) Mandated Licensing Bases Documents - documents, such as the Updated Final Safety Analysis Report (UFSAR), the quality assurance program, the security plan, and the emergency plan, for which the NRC has established requirements for content, change control, and reporting. What information should be included in these documents is specified in applicable regulations and regulatory guides. The change control mechanisms and reporting requirements are defined by regulations such as 10 CFR 50.59, 50.54, and 50.71.
- (3) Regulatory Commitments - explicit statements to take a specific action agreed to, or volunteered by, a licensee and submitted in writing on the docket to the NRC. A regulatory commitment is appropriate for matters in which the staff has a significant interest but which do not warrant either a legally binding requirement or inclusion in the UFSAR or a program subject to a formal regulatory change control mechanism. Control of such commitments in accordance with licensee programs is acceptable provided those programs include controls for evaluating changes and, when appropriate, reporting them to the NRC.

The escalation of commitments into license conditions (i.e., obligations), requiring prior NRC approval of subsequent changes, is reserved for matters that satisfy the criteria for inclusion in technical specifications by 10 CFR 50.36 or inclusion in the license as a license condition to address a significant safety issue or actions that the NRC staff has relied on to make a finding of reasonable assurance.

The standard for license renewal is embodied in our rule 10 CFR 54.29 which provides that the NRC will issue the license based on actions identified that have or will be taken in order to manage the effects of aging for structures, systems, and components within the scope of license renewal. The identified actions include information organized as Aging Managing

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Programs and Time Limited Aging Analyses in the licensee renewal application. For actions that will be taken, applicants may make commitments in their docketed submittals to the NRC in support of the license renewal review. If the NRC staff determines that it must rely on certain commitments as part of its approval for the license renewal application, those commitments can be elevated into obligations (i.e., license conditions) or subsequently incorporated into a mandated licensing basis document.

#### Specific Questions and Answers

**1. When a licensee makes commitments in the license renewal process, can the licensee change the commitment with notice to NRC but no approval? Please explain if the answer is yes, including if there is any "materiality" test and where such test is codified.**

#### Response:

For commitments that have not been elevated into obligations or a licensing basis document licensees may change the commitments using the guidance described in Nuclear Energy Institute (NEI) document NEI 99-04, "Managing NRC Commitment Changes," July 1999 (ADAMS Accession No. ML003680088), or similar licensee-specific administrative controls. Some commitment changes require prior NRC approval and some changes may be made without NRC prior approval. Section 4.2 of NEI 99-04 provides a description of the process licensees typically use to determine when prior NRC approval of a commitment change would be needed. Figure A-1 of NEI 99-04 provides a flow chart of the process described in Section 4.2. As shown on the flow chart, the commitment change process includes a number of decision steps including whether the change process is codified (e.g., 10 CFR 50.54, 10 CFR 50.59). The process also describes when changes made without NRC approval need to be reported to the NRC.

If licensee commitments made during a licensing review (e.g., license renewal application) are elevated by the NRC into an obligation (e.g., a license condition) then licensee changes to those commitments would need prior NRC approval as a license amendment in accordance with 10 CFR 50.90.

**2. It says the NEI guidance (NEI 99-04) was endorsed by the NRC. I was able to find the NEI document on the NRC website and to review it. Is this document binding on Entergy and if so by what authority (e.g., commitment in license renewal, a regulation, MOU...)?**

#### Response:

NEI 99-04 was reviewed by the NRC Staff in Regulatory Issue Summary (RIS) No. 2000-17, dated September 21, 2000 (ADAMS Accession No. ML003741774). NEI 99-04 is not considered a regulatory requirement and is therefore not binding on licensees. The intent section of the RIS states that: "The NRC encourages licensees to use the NEI guidance or similar administrative controls to ensure that regulatory commitments are implemented and that changes to the regulatory commitments are evaluated and when appropriate, reported to the NRC. This RIS does not transmit any new requirements or staff positions." RIS 2000-17 establishes a voluntary process which Entergy implements through an internal procedure. The

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triennial NRC staff audit of Entergy's regulatory commitment management program includes an assessment of the implementation of the guidance in NEI 99-04 and the adequacy of any program features that differ from that guidance.

**3. Can you please provide me with a copy of Entergy procedure EN-LI-110 cited in the inspection report?**

Response:

Licensee procedure EN-LI-110 is maintained on site by the licensee. The document is not in NRC possession; as a part of the inspection on site, we obtained the completed evaluation for the subject change which is a small part of the procedure. We shared this information with your state engineer when the inspection team was on site in January 2012.

**4. What does NRC expect a licensee to do when changing a license commitment?**

Response:

The NRC expects licensees to follow the change guidance described in NEI 99-04 or their similar licensee-specific administrative controls (see response to question 1).

**5. Are there any NRC regulations or guidance documents regarding changing a license commitment? If so, can you please provide me with citations?**

Response:

As noted in the responses above, the guidance contained in NEI 99-04 regarding licensee changes to regulatory commitments has been endorsed by the NRC in RIS No. 2000-17. Regulatory commitments are not legal obligations and are not governed by regulations.

**6. In this instance, the inspectors "could not clearly determine whether Entergy had met the expectation of the commitment change process as specified in the license conditions of the renew[ed] Vermont Yankee license." Is there additional process to make that determination, and if so, what is that process?**

Response:

During the first phase of the license renewal post-approval inspection at the Vermont Yankee facility, NRC inspectors identified a concern regarding how Commitment No. 6 was changed (reference NRC Inspection Report 05000271/2011011 dated December 22, 2011 (ADAMS Accession No. ML113560064)). As discussed in the inspection report, the licensee changed the commitment as described in Entergy's letter BVY 11-026 dated May 19, 2011 (ADAMS Accession No. ML11145A117). This change was made without prior NRC approval. The cover letter to the inspection report indicated that the NRC planned to continue to review Commitment No. 6 along with Entergy's commitment change management process during a future planned license renewal team inspection prior to the period of extended operation.

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Another phase of this inspection continued in January 2012, and the issues identified in the December 2011 report were subject to further NRC staff review by NRC Region I and Headquarters personnel. As discussed in NRC Inspection Report No. 05000271/2012008, dated April 20, 2012 (ADAMS Accession No. ML12103A406), the NRC staff determined that the change to Commitment No. 6 at the time that it was evaluated in January 2011, did not need NRC staff approval in accordance with 10 CFR 50.90. This is so because the commitment did not become an obligation or requirement until the renewed license was issued on March 21, 2011. The notification in May 2011, to the NRC was just another aspect of implementing the NEI 99-04 process in January 2011.

More specifically, as part of the NRC approval of the Vermont Yankee licensee renewal on March 21, 2011, the NRC staff elevated the commitments in Appendix A of Supplement 2 to NUREG-1907 (ADAMS Accession No. ML110770495) into obligations via a new license condition added to the facility operating license (license condition 3.Q). Commitment No. 6 was one of the commitments covered under the scope of this license condition. The team inspection did uncover an issue with the licensee misunderstanding of the intent of License Condition No. 3.Q and this resulted in License Amendment Changes, dated March 5 and March 12, 2012. The NRC staff intends to conduct another phase of the IP 71003 as follow-up to the issues identified in these amendments on about the next refueling outage in the spring of 2013. The team also verified clarifying changes to the licensee's implementation procedure of the NEI 99-04 process

***7. Why was Entergy required to use FatiguePro as a license commitment when it previously had used manual cycle counting?***

Response:

The NRC staff did not require the use of FatiguePro for the Vermont Yankee license renewal. As part of its license renewal application, the licensee proposed to use the software as a means to determine cumulative usage factors for locations of interest. NRC reviewed and accepted the licensee's use of FatiguePro as part of its Fatigue Monitoring aging management program (AMP). Alternatively, the licensee could have proposed to use manual cycle counting or some other means for the same purpose.

***8. Does the NRC find one method of determining cumulative fatigue usage factors preferable to the other, and if so, why?***

Response:

The NRC does not prefer one method over another to determine cumulative usage factors. The requirement to have such an analysis for Class 1 components is from the American Society of Mechanical Engineers (ASME) Code Section III (incorporated by reference in NRC regulations through 10 CFR 50.55a) which does not specify the methodology for tracking transient cycles.

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