September 29, 2006

LICENSEE: Entergy Nuclear Operations, Inc.

FACILITY: Vermont Yankee Nuclear Power Station

SUBJECT: SUMMARY OF A TELEPHONE CONFERENCE CALL HELD ON AUGUST 10, 2006, BETWEEN THE U.S. NUCLEAR REGULATORY COMMISSION AND ENTERGY NUCLEAR OPERATIONS, INC., CONCERNING INFORMATION PERTAINING TO THE VERMONT YANKEE NUCLEAR POWER STATION LICENSE RENEWAL APPLICATION

The U.S. Nuclear Regulatory Commission staff (the staff) and representatives of Entergy Nuclear Operations, Inc., held a telephone conference call on August 10, 2006, to discuss and clarify the staff's requests for additional information concerning the Vermont Yankee Nuclear Station license renewal application. The conference call was useful in clarifying the staff's questions.

Enclosure 1 provides a listing of the conference call participants. Enclosure 2 contains a listing of the issues discussed with the applicant, including a brief description on the status of the items.

The applicant had an opportunity to comment on this summary.

/RA/

Jonathan Rowley, Project Manager
License Renewal Branch B
Division of License Renewal
Office of Nuclear Reactor Regulation

Docket No. 50-271

Enclosures:
As stated

cc w/encls: See next page

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<u>Note to Entergy Nuclear Operations, Inc., from Jonathan Rowley dated September 29, 2006</u>

SUBJECT: SUMMARY OF A TELEPHONE CONFERENCE CALL HELD ON AUGUST 10, 2006, BETWEEN THE U.S. NUCLEAR REGULATORY COMMISSION AND ENTERGY NUCLEAR OPERATIONS, INC., CONCERNING INFORMATION PERTAINING TO THE VERMONT YANKEE NUCLEAR POWER STATION LICENSE RENEWAL APPLICATION

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August 10, 2006

PARTICIPANTS	AFFILIATIONS
Jonathan Rowley	U.S. Nuclear Regulatory Commission (NRC)
Ronald Young	NRC
Ganesh Cheruvenki	NRC
Jim Nicholas	Pacific Northwest National Laboratory
Mike Hamer	Entergy Nuclear Operations, Inc. (ENO)
Andy Taylor	ENO
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Enclosure 1

VERMONT YANKEE NUCLEAR POWER STATION
LICENSE RENEWAL APPLICATION

August 10, 2006

The U.S. Nuclear Regulatory Commission staff (the staff) and representatives of Entergy Nuclear Operations, Inc., held a telephone conference call on August 10, 2006, to discuss and clarify the staff's requests for additional information (RAIs) concerning the Vermont Yankee Nuclear Power Station (VYNPS) license renewal application (LRA). The following issues were discussed during the telephone conference call:

RAI-B.1.2-1
The applicant states that the Control Rod Drive (CRD) return line nozzle has been capped at the VYNPS unit. The staff requests that the applicant provide the following information regarding the cap and the weld:

(1) Describe the configuration, location and material of construction of the capped nozzle. This should include the existing base material for the nozzle, piping (if piping remnants exist) and cap material, and any welds.

(2) Describe how the aging effects for this weld and the cap are managed in accordance with the guidelines of Boiling Water Reactor Vessel and Internals Project-75 (BWRVIP-75), "BWR Vessel and Internals Project, Technical Basis for Revisions to Generic Letter 88-01 Inspection Schedule."

(3) Discuss whether the event at Pilgrim Nuclear Power Station (Pilgrim)(leaking weld at capped nozzle, September 30, 2003) is applicable to VYNPS. The staff issued Information Notice 2004-08, "Reactor Coolant Pressure Boundary Leakage Attributable to Propagation of Cracking in Reactor Vessel Nozzle Welds," dated April 22, 2004, which states that the cracking occurred in an Alloy 182 weld that was previously repaired extensively. Discuss experience with previous leakage at the VYNPS capped nozzle, if any. Include in your discussion the past inspection techniques applied, the results obtained, and mitigative strategies imposed. Provide information as to how the plant-specific experience related to this aging effect impacts the attributes specified in Aging Management Program B.1.2, "BWR CRD Return Line Nozzles."

Discussion: The applicant believed that this question was similar to an RAI issued for the Pilgrim LRA. The staff pointed out the differences. The applicant indicated that the question is clear.

RAI-B.1.2-2
The applicant also states that CRD return lines are connected to the reactor water clean-up (RWCU) piping system which is classified as a non-safety system. Since previous inspection results for these welds indicated no cracking, the applicant proposed to delete the inspection requirements for these welds during the extended period of operation. In order to effectively evaluate this proposal, provide the following information regarding the welds between the CRD return line and the RWCU piping:

(1) Provide information regarding the total number of the CRD return lines that are welded to the RWCU piping.

(2) Provide a drawing or a sketch indicating the safety/non-safety boundary of these welds. Additionally, the applicant should confirm that all safety-related welds will be inspected per the American Society of Mechanical Engineers Code, Section XI, Inservice Inspection program. Since the applicant intends to not perform inspections of these welds during the extended period of operation, the applicant should provide a technical justification for not performing the inspections of these welds taking into account the effects of aging degradation and effective techniques that will be used to mitigate the aging process.

(3) Provide information regarding the type of base metal and weld metal that are used in these welds. If austenitic stainless steel weld metal is used for these welds, the applicant should provide information regarding the amount of delta ferrite that is present in these welds. This information is necessary in assessing the susceptibility of these welds to intergranular stress-corrosion cracking (IGSCC). If the predominant aging mechanism in these welds is other than IGSCC, the applicant should identify the aging mechanism, the techniques it intends to use in mitigating the aging degradation, and aging monitoring program for these welds.

Discussion: The applicant indicated that the question is not clear. The staff will reword this RAI.

RAI 2.3.3.2a-1
License Renewal (LR) Drawing LRA-G-191159-SH-01-0, Location H-12, depicts pipe section 2"-SW-566C to be within the scope of LR. Upstream from where 2"-SW-566C enters the RX Building from outside there is no drawing continuation to depict the LR boundary. Provide details for the continuation of 2"-SW-566C to the LR boundary and justify the boundary locations with respect to the applicable requirements of Title 10 of the *Code of Federal Regulations* Section 54.4(a) (10 CFR 54.4(a)).

Discussion: The applicant indicated that the question is clear.

RAI 2.3.3.2a-2
LR Drawing LRA-G-191159-SH-01-0, at Location H-11, Drawing Note 16 indicates piping section (4"-SW-567) and supports on the Reactor Building Air Conditioning supply piping where the vacuum breakers tie in are structure and components 2 for structural integrity. This pipe section from Valve 23D through Valves RBAC-1A, 1B, 1C and 1D is not within the scope of LR. Failure of this section of pipe could have an effect on the LR intended pressure boundary function for the service water piping. Provide additional information on why this section of pipe and components are not within the scope for LR and justify the boundary locations with respect to the applicable requirements of 10 CFR 54.4(a).

Discussion: The applicant indicated that the question is clear and directed the staff to a different location of the LRA where the information could be found. The staff was requested to determine if the information in Table 2.3.3.13-B addresses the concern. The staff will evaluate the information in the table and withdraw the RAI if found adequate.

RAI 2.3.3.3-1
LR Drawing, LRA-G-191159-SH-05-0, Location P-10 at Valve 29 is within the scope of LR. This section of pipe is the RBCCW return to the Alternate Cooling System. There is not a drawing continuation provided. Provide details for the continuation of this piping section to the LR boundary and justify the boundary locations with respect to the applicable requirements of 10 CFR 54.4(a).

Discussion: The applicant indicated that the question is not clear. The staff incorrectly referenced the drawing of interest. The staff will issue this RAI with the correct drawing reference of LRA-G-191159-SH-03-0.

RAI 2.3.3.6-1
LR Drawing, LRA-G-191162 Sheet 2, provides details about the fail open (FO) supported emergency diesel generators, diesel-driven fire pump, and house heating boiler systems. However, the drawing does not provide details about the John Deere Diesel system that is also supported by the FO system, e.g., details about the transfer system between the 75,000 gallon fuel oil storage tank and the day tanks for the two John Deere diesels and single fire pump diesel which are required to provide an intended function for 10 CFR 54.4 (a)(3) in support of the fire protection regulation (10 CFR 50.48). The LRA text mentions only that a 500-gallon portable tank is used to transport fuel oil to those diesels. Typical aging management review (AMR) components for diesels like the day tank, strainer, etc., for the John Deere Diesel are not covered. Provide the FO system drawings to include a schematic of the John Deere diesel system to establish the relationship to the FO system and to clarify where and what the AMR tables should include in both Sections 2.3.3.6 and 2.3.3.12. Also, provide additional information for the LR boundary and justify its location with respect to the applicable requirements of 10 CFR 54.4(a).

Discussion: The applicant indicated that the question is clear. The staff agreed to allow the applicant to describe the system rather than having to provide a system drawing.

RAI 2.2-2
The Nuclear System Leakage Rate Limits and Leakage Detection Systems are described in Section 4.10 of the VYNPS Updated Final Safety Analysis Report (UFSAR). Identified and unidentified leakage rates are an important aspect of plant operation and Technical Specifications. Section 4.10 of the UFSAR does not specifically address a single “leakage detection system,” but describes a “leakage detection method” with references to other supporting systems. There were no LRA sections identified to address the leakage detection methods and systems described in UFSAR Section 4.10. The applicant is asked to clarify if the leakage detection systems and components are included in the LR scope or the basis for their exclusion.

Discussion: The applicant indicated that the question is too general and requested the staff be more specific. The staff will reword the RAI accordingly prior to submittal.