

June 19, 2006

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
	)	
ENTERGY NUCLEAR VERMONT YANKEE,	)	Docket No. 50-271-OLA
LLC and ENTERGY NUCLEAR	)	
OPERATIONS, INC.	)	ASLBP No. 04-832-02-OLA
	)	
(Vermont Yankee Nuclear Power Station)	)	

NRC STAFF'S SUPPLEMENT TO ITS INITIAL  
TESTIMONY CONCERNING NEC CONTENTIONS 3 AND 4

On June 5, 2006, the Atomic Safety and Licensing Board's issued its "Order (Regarding Submission of Supplemental Documents)" ("Order"), in which it directed the parties to file supplements to their pre-filed testimony in this proceeding, by submitting copies of documents "that are relied upon to prove or substantiate [its] position, or that are referenced by, and are material to support, the testimony of one of its witnesses." Order at 3. In accordance with the Licensing Board's Order, the NRC Staff ("Staff") hereby supplements its testimony on NEC Contentions 3 and 4, filed on May 17, 2006,<sup>1</sup> by submitting a list, and certain copies, of the documents that are relied upon to prove or substantiate its position, or that are referenced by and are material to support the testimony of its witnesses.

The Staff notes that some of the documents identified in the list below have been identified by Entergy Nuclear Vermont Yankee, LLC and Entergy Nuclear Operations, Inc. (collectively, "Applicant") as exhibits or as documents relied upon in the testimony of its

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<sup>1</sup> See (1) "NRC Staff Testimony of Richard B. Ennis, Steven R. Jones, Robert L. Pettis, Jr., George Thomas, and Zeynab Abdullahi Concerning NEC Contention 3," dated May 17, 2006; and (2) "NRC Staff Testimony of David C. Jeng, Steven R. Jones and Richard B. Ennis Concerning NEC Contention 4," dated May 17, 2006.

witnesses in this proceeding.<sup>2</sup> Documents which were relied upon by the Staff that were identified and produced by the Applicant are listed below but are not being produced herewith, in order to avoid unnecessary duplication.

In addition, the Staff notes that it has previously distributed copies of its Final Safety Evaluation ("Final SE") (both the proprietary and non-proprietary versions) and the Advisory Committee on Reactor Safeguards ("ACRS") letter of January 4, 2006, to all persons on the Staff's service list who are entitled to receive those documents.<sup>3</sup> Inasmuch as copies of those documents (Items 1-3 on the list below) have already been provided to the Licensing Board and parties, additional copies thereof are not being produced at this time. Finally, the Staff notes that two of the documents identified in the list below contain proprietary information. The Staff will transmit those documents to the Licensing Board by separate letter on June 20, 2006.

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<sup>2</sup> See "Entergy's Supplement to Direct Testimony on NEC Contentions 3 and 4" ("Applicant's Supplement"), dated June 19, 2006. No supplement has yet been filed by NEC at this time.

<sup>3</sup> See (1) letter from Graham B. Wallis, Chairman, Advisory Committee on Reactor Safeguards ("ACRS") to NEC Chairman Nils J. Diaz, dated January 4, 2006, attached to "NEC Staff's Eleventh Status Report on Review Schedule," dated January 17, [2006]; and (2) letter from Sherwin E. Turk to the Licensing Board, dated March 2, 2006, transmitting copies of the Final SE; .

DOCUMENTS RELIED UPON OR REFERENCED BY  
AND MATERIAL TO SUPPORT THE NRC STAFF'S INITIAL  
TESTIMONY CONCERNING NEC CONTENTIONS 3 AND 4<sup>4</sup>

A. Documents Generally Relevant to All Admitted Contentions

1. "Safety Evaluation by the Office of Nuclear Reactor Regulation Related to Amendment No. 229 to Facility Operating License No. DPR-28, Entergy Nuclear Vermont Yankee, LLC and Entergy Nuclear Operations, Inc., Vermont Yankee Nuclear Power Station, Docket No. 50-271" (March 2, 2006) (proprietary version) (previously produced by letter dated March 2, 2006).
2. "Safety Evaluation by the Office of Nuclear Reactor Regulation Related to Amendment No. 229 to Facility Operating License No. DPR-28, Entergy Nuclear Vermont Yankee, LLC and Entergy Nuclear Operations, Inc., Vermont Yankee Nuclear Power Station, Docket No. 50-271" (March 2, 2006) (ADAMS Accession No. ML060050028) (non-proprietary version) (previously produced by letter dated March 2, 2006).
3. Letter from Graham B. Wallis, Chairman, Advisory Committee on Reactor Safeguards ("ACRS"), to NRC Chairman Nils J. Diaz, Subject: "Vermont Yankee Extended Power Uprate" (January 4, 2006) (previously produced on January 17, 2006).

B. Documents Relevant to NEC Contention 3 (Large Transient Testing)

- 4.\* NRC Regulatory Guide ("RG") 1.68, "Initial Test Programs for Water-Cooled Nuclear Power Plants," Revision 2 (August 1978), and Appendix A thereto.
5. Office of Nuclear Reactor Regulation, "Review Standard for Extended Power Uprates," RS-001, Rev. 1 (Dec. 2003) (ADAMS Accession No. ML033640024) (previously identified and provided as "Staff Exhibit A," on May 17, 2006).
6. Office of Nuclear Reactor Regulation, "Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants," NUREG-0800, § 14.2.1, "Generic Guidelines for Extended Power Uprate Testing Programs," Draft Revision 0, dated December 2002 (previously identified and provided as "Staff Exhibit B" on May 17, 2006).
7. Attachment 7 to Entergy's EPU application, "Vermont Yankee Nuclear Power Station, Proposed Technical Specification Change No. 263, Extended Power

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<sup>4</sup> Items marked with an asterisk are being provided herewith; all other items have been produced previously, as stated herein. As indicated below, the Staff is producing herewith copies of Items 4, 9, 10, 11, 13, 15, 16, 17, 18, 19, 20, 23, and 30. Two documents (Items 14 and 21) contain proprietary information and will be produced by separate letter to the Licensing Board on June 20, 2006.

- Uprate, Justification for Exception to Large Transient Testing” (Sept. 10, 2003) (previously identified and provided as Applicant’s Exhibit 5 on May 17, 2006).
8. Attachment 7 to Entergy’s EPU application, “Vermont Yankee Nuclear Power Station, Proposed Technical Specification Change No. 263, Supplement No. 3, Extended Power Uprate, Justification for Exception to Large Transient Testing” (Oct. 28, 2003) (previously identified and provided as Applicant’s Exhibit 6 on May 17, 2006).
  - 9.\* Letter from Jay K. Thayer (Entergy) to NRC Document Control Desk, transmitting Supplement No. 23 to Entergy’s EPU application – Response to Request for Additional Information (Feb. 24, 2005) (partial document).
  - 10.\* Letter from Jay K. Thayer (Entergy) to NRC Document Control Desk, transmitting Supplement No. 28 to Entergy’s EPU application – Response to Request for Additional Information (April 22, 2005) (partial document).
  - 11.\* Letter from Robert J. Wanczyk (Entergy) to NRC Document Control Desk, transmitting Supplement No. 30 to Entergy’s EPU application – Response to Request for Additional Information (Aug. 1, 2005) (partial document – Attachment 8).
  12. GE Licensing Topical Report NEDC-33004P-A, Revision 4, “Constant Pressure Power Uprate” (July 2003) (non-proprietary version identified and produced as Item 1 in Applicant’s Supplement of June 19, 2006).
  - 13.\* Letter from William H. Ruland (NRC) to James F. Klapproth (GE Nuclear Energy), dated March 31, 2003, transmitting “Safety Evaluation by the Office of Nuclear Reactor Regulation, GE Nuclear Energy Licensing Topical Report, NEDC-33004P, Revision 1, ‘Constant Pressure power Uprate’, Project No. 710” (non-proprietary version) (Sections 3.4 and 10.5 were previously identified and provided as “Staff Exhibit C” on May 17, 2006).
  14. Letter from William H. Ruland (NRC) to James F. Klapproth (GE Nuclear Energy), dated March 31, 2003, transmitting “Safety Evaluation by the Office of Nuclear Reactor Regulation, GE Nuclear Energy Licensing Topical Report, NEDC-33004P, Revision 1, ‘Constant Pressure power Uprate’, Project No. 710” (proprietary version - to be produced by separate letter to the Licensing Board on June 20, 2006).
  - 15.\* Letter from Robert L. Tedesco (NRC) to Dr. G. G. Sherwood (General Electric Co.), dated February 4, 1981, Subject: “Acceptance for Referencing General Electric Licensing Topical Report NEDO-24154/NEDE-24154P,” with enclosed “Safety Evaluation for the General Electric Topical Report Qualification of the One-Dimensional Core Transient Model for Boiling Water Reactors, NEDO-24154 and NEDE-24154-P” (June 1980).

- 16.\* “Supplemental Safety Evaluation for the General Electric Topical Report Qualification of the One-Dimensional Core Transient Model for Boiling Water Reactors, NEDO-24154 and NEDE-24154-P.”
- 17.\* Letter from Cecil O. Thomas (NRC) to J. S. Charnley (General Electric Co.), dated November 5, 1985 (“Acceptance for Referencing of Licensing Topical Report NEDE-24011-P-A, Rev. 6, Amendment 11, ‘General Electric Standard Application for Reactor Fuel’ (GESTAR II)”)
- 18.\* Letter from Gus. C. Lainas (NRC) to J. S. Charnley (General Electric Co.), dated March 22, 1986 (“Acceptance for Referencing of Licensing Topical Report NEDE-24011-P-A, ‘GE Generic Licensing Reload Report,’ Supplement to Amendment 11.”)
- 19.\* Letter from R. M. Krich, Exelon Generation Co., LLC, to NRC, “Additional Testing Information Supporting the License Amendment Request to Permit Up-rated Power Operation at Dresden Nuclear Power Station and Quad Cities Nuclear Power Station,” RS-01-104 (May 18, 2001).
- 20.\* “Safety Evaluation by the Office of [NRR] Related to Amendment No. 191 to Facility Operating License No. DPR-19, and Amendment No. 185 to Facility Operating License No. DPR-25, Exelon Generation Company, LLC, Dresden Nuclear Power Station Units 2 and 3, Dockets No. 50-237 and 50-249” [March 2, 2006] (partial document).
21. GE Nuclear Energy,, GE-NE-0000-0041-1254-R0, DRF 0000-0038-3078, Class III (July 2005), “ODYN Benchmark of the Dresden 3 January 30, 2004 Turbine Trip Event” (proprietary information - to be produced by separate letter to the Licensing Board on June 20, 2006).

C. Documents Relevant to NEC Contention 4 (ACS Cooling Tower)

22. “Licensing of Production and Utilization Facilities, General Design Criteria for Nuclear Power Plant Construction Permits,” 32 Fed. Reg. 10,213 (July 11, 1967) (Draft GDC, previously identified and provided as Attachment A to “Entergy’s Initial Statement of Position on [NEC] Restated Contention 4”).
- 23.\* Entergy, “Updated Final Safety Analysis Report, Vermont Yankee Nuclear Power Station, UFSAR Revision 20 (partial document).
24. ABS Consulting Calculation No. 1356711-C-001, “Cooling Tower Seismic Evaluation,” Rev. 1 (April 5, 2005) (previously identified and provided as Entergy Exhibit 7)
25. Declaration of Paul D. Baughman (Oct. 17, 2005), attached to “Entergy’s Response to NEC’s Request for Leave to File a New Contention (Oct. 19, 2005)

26. Cooling Tower Institute ("CTI"), "Standard Specifications for the Design of Cooling Towers with Douglas Fir Lumber", CTI Bulletin STD-114 (Nov. 1996) (previously identified and provided as Entergy Exhibit 9)
27. NRC Integrated Inspection Report 05000271 / 2005003 ("IR 2005-3") (July 20, 2005) (previously identified and provided as Entergy Exhibit 19).
28. Vermont Yankee Temporary Modification ("TM") 2005-004, "Installation of Structural Splices in Cooling Tower CT2-1" (previously identified and provided as Entergy Exhibit 20).
29. State of Vermont Discharge Permit No. 3-1199 (previously identified and provided as Entergy Exhibit 18).
- 30.\* Newmark, N.M. and W.J. Hall, *Development of Criteria for Seismic Review of Selected Nuclear Power Plants*, NUREG/CR-0098 (May 1978).

Respectfully submitted,

**/RA/**

Sherwin E. Turk  
Steven C. Hamrick  
Counsel for NRC Staff

Dated at Rockville, Maryland  
this 19<sup>th</sup> day of June, 2006

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
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ENTERGY NUCLEAR VERMONT YANKEE	)	Docket No. 50-271-OLA
LLC and ENTERGY NUCLEAR	)	
OPERATIONS, INC.	)	ASLBP No. 04-832-02-OLA
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(Vermont Yankee Nuclear Power Station)	)	

CERTIFICATE OF SERVICE

I hereby certify that copies of "NRC STAFF'S SUPPLEMENT TO ITS INITIAL TESTIMONY CONCERNING NEC CONTENTIONS 3 AND 4" in the above-captioned proceeding have been served on the following by deposit in the United States mail, first class; or as indicated by an asterisk (\*), by deposit in the Nuclear Regulatory Commission's internal mail system; and by e-mail as indicated by a double asterisk (\*\*), this 19<sup>th</sup> day of June, 2006.

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