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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))	

**ENERGY’S RESPONSE TO NEC’S MOTION TO FILE
A TIMELY NEW OR AMENDED CONTENTION**

I. INTRODUCTION

Applicants Entergy Nuclear Vermont Yankee, LLC and Entergy Nuclear Operations, Inc. (collectively “Entergy”) submit this response, pursuant to 10 C.F.R. § 2.309(h)(1), to “New England Coalition, Inc.’s (NEC) Motion to File a Timely New or Amended Contention” dated March 17, 2008 (“NEC’s Motion”). NEC’s Motion seeks to amend in some unspecified manner Contention 2A in this proceeding to challenge the confirmatory environmentally assisted fatigue calculations for the feedwater nozzle at the Vermont Yankee Nuclear Power Station (“VY”) performed by Entergy in January 2008 after discussions with the NRC Staff.¹

Entergy does not object to NEC challenging the confirmatory analysis performed in January 2008. However, the NEC filing does not set forth with any particularity NEC’s allegations. NEC broadly claims that the confirmatory analysis “addresses only one issue: the uncertainty in calculation of CUF values used in Entergy’s First CUFen Reanalysis resulting from the use of the Green Function. It does not address errors in Entergy’s First CUFen

¹ Entergy agrees that the new proposed contention meets the timeliness requirements of 10 C.F.R. § 2.309(f)(2).

Reanalysis resulting from several other factors identified in NEC's Contention 2A and the supporting Sixth Declaration of Dr. Joram Hopenfeld. *See*, Attachment 1 ¶¶7-10." NEC's Motion at 3. As we approach the hearing in this proceeding, a more precise definition of NEC's claim is both possible, desirable to produce a focused hearing, and required by the NRC rules. See 10 C.F.R. § 2.309(f)(1)(i).

Entergy would not oppose a modification of NEC Contention 2A that specifically defines in what respects NEC claims that Entergy's fatigue calculations are deficient. Based on the Seventh Declaration of Dr. Joram Hopenfeld ("Hopenfeld Seventh Decl."), filed in support of NEC's Motion, the alleged deficiencies in the confirmatory analyses consist of "not address[ing] the errors in calculation of the environmentally corrected usage factor, CUFen, due to the several factors I identified in my Sixth Declaration in support of NEC's Contention 2A." Hopenfeld Seventh Decl., ¶ 8. In turn, Dr. Hopenfeld's Sixth Declaration ("Hopenfeld Sixth Decl."), filed in September 2007, identified the following factors based on which Dr. Hopenfeld contends Entergy's refined calculations of environmentally assisted fatigue are deficient:

- Entergy's use of the statistical equations in NUREG/CR 6583 and 5704 to calculate the value of F_{en} instead of those in NUREG/CR-6909. (Hopenfeld Sixth Decl., ¶ 15.)
- Failure to account for mean stress, surface finish, size and loading history, as well as flow velocity, stress ratio, strain rate change, size and geometry, excursions from normal water chemistry, and data scatter. (Id., ¶ 17.)
- Improper use of statistical equations at "low oxygen and low temperatures." (Id., ¶ 18.)

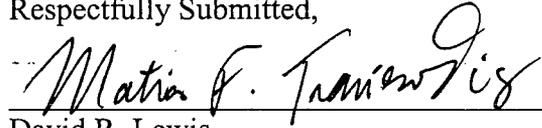
- Failure to specify the error band on stress results arising from the use of Green's Functions (Id., ¶ 21.)
- Use of steady state heat transfer coefficients instead of ones applicable to transients. (Id., ¶ 24.)
- Uncertainties in temperatures and flow velocities. (Id., ¶ 25.)
- Increase in number of transients due to the power uprate. (Id., ¶ 26.)
- Need to calculate partial usage factor in each stress cycle. (Id., ¶ 27.)

These alleged deficiencies can be expressly set out in an amended contention 2A as follows:

Entergy's First CUFen Reanalysis is deficient because of: (1) Use of incorrect statistical equations; (2) Failure to account for mean stress, surface finish, size and loading history, flow velocity, stress ratio, strain rate change, size and geometry, excursions from normal water chemistry, and data scatter; (3) Improper use of equations at low oxygen levels and low temperatures; (4) Use of steady state heat transfer coefficients instead of those applicable to transients; (5) Uncertainties in temperatures and flow velocities; (6) Increase in number of transients due to the power uprate; (7) Uncertainties in temperatures and flow velocities; (8) Need to calculate partial usage factor in each stress cycle; and (9) failure to specify the error band on stress results arising from the use of Green's functions. Except for the last item, the Confirmatory Analysis of the feedwater nozzle submitted by Entergy in January 2008 does not address these deficiencies. In addition, the confirmatory feedwater nozzle analysis does not bound the analyses for the spray and recirculation nozzles.

Entergy would not oppose an amended contention worded in this manner so that that the issues to be adjudicated are properly specified.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read "David R. Lewis", written over a horizontal line.

David R. Lewis

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Dated: April 10, 2008

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NUCLEAR REGULATORY COMMISSION**

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CERTIFICATE OF SERVICE

I hereby certify that copies of "Entergy's Response to NEC's Motion to File a Timely New or Amended Contention" and "Notice of Appearance of Blake J. Nelson" 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 10th day of April, 2007.

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