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June 28, 2007

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**UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION**

OFFICE OF SECRETARY
RULEMAKINGS AND
ADJUDICATIONS STAFF

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 RESPONSE IN OPPOSITION TO NEW ENGLAND COALITION'S
MOTION TO WITHHOLD DECISION**

Pursuant to 10 C.F.R. §2.323(c), Applicants Entergy Nuclear Vermont Yankee, LLC and Entergy Nuclear Operations, Inc. (collectively "Entergy") provide this Response in opposition to "New England Coalition, Inc.'s (NEC) Motion to Withhold Decision of Entergy's Motion for Summary Disposition of New England Coalition Contention 3 (Steam Dryer)" ("NEC Motion") dated June 19, 2007. There is no legal or factual basis for the action by the Atomic Safety and Licensing Board ("Board") sought by NEC, thus the NEC Motion should be denied.

Entergy filed on April 19, 2007 a Motion for Summary Disposition of New England Coalition's Contention 3 (Steam Dryer) ("Entergy's Summary Disposition Motion"). Entergy's Summary Disposition Motion has been fully briefed and has been pending a ruling by the Board since May 9, 2007 when both NEC and the NRC Staff filed responses to the motion.¹

NEC's Motion requests that the Board "allow NEC until July 19" to review and assess certain materials relating to the May 2007 inspection of the Vermont Yankee steam dryer "and file with the Board its assessment of the inspection results." NEC Motion at 1. However, the

¹ NEC filed on May 18, 2007 an unauthorized response to the NRC Staff's response to Entergy's Summary Disposition Motion. The Staff moved on May 29, 2007 to strike NEC's unauthorized filing, and Entergy filed a response in support of the Staff's motion on June 8, 2007. A ruling on that motion is pending.

materials NEC intends to “assess” are irrelevant to Entergy’s pending Summary Disposition Motion and the period of time NEC seeks is totally unreasonable since those materials were provided to NEC on June 18 and 19, 2007.²

The Board’s rationale for admitting NEC Contention 3 was twofold. First, the Board found that the following statements in the Declaration of Dr. Joram Hopenfeld³ submitted in support of NEC’s Petition “demonstrated a ‘genuine dispute’ under the standards of 10 C.F.R. § 2.309(f)(1)(vi)”:

[T]he management of cracking at the steam dryer will be in accordance with current guidance per NUREG 1801, GE-SIL-644 and possibly future guidance from BWRVIP-139, if approved by NRC. No matter which guidance Entergy follows, the status of the existing dryer cracks must be continuously monitored and assessed by a competent engineer.

Entergy’s proposed monitoring techniques are not adequate to detect crack propagation and growth because they are not based on actual measurements of crack initiation and growth. Instead, Entergy relies on unproven computer models and moisture monitors which only indicate that the dryer was already damaged. The estimated fatigue loads on the dryer are based on theoretical calculations of two computer models: the [CFD] Model and the [AC] Model. Neither the CFD nor the ACM were benchmarked against properly scaled dryer structure and therefore their predictions are subject to large uncertainties.

Memorandum and Order (Ruling on Standing, Contentions, Hearing Procedures, State Statutory Claim, and Contention Adoption), LBP-06-20, 64 N.R.C. 131, 190 (2006), (“LBP-06-20”) quoting Hopenfeld Decl., ¶¶ 18-19. Second, the Board ruled that:

“since Entergy’s existing license continues until 2012, its application for a license renewal necessarily only involves aging management matters after that date. Steam dryer monitoring and inspection plans for the time period prior to 2012 are not directly relevant to, nor dispositive of, our ruling on NEC Contention 3 except to the extent that Entergy’s license renewal application, or other materials properly before this Board at this stage in the proceeding, indicates a commitment to continue existing programs.”

² The requested period includes vacation that NEC Counsel intends to take in early July. See NEC’s Motion to Extend Time for NEC’s Opposition to Entergy’s Motion for Summary Disposition of New England Coalition’s Contention 4 (Flow Accelerated Corrosion) dated June 18, 2007 at 1, n.1.

³ Petition Exh. 7, Declaration of Dr. Joram Hopenfeld (May 12, 2006) (“Hopenfeld Decl.”).

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³ Petition Exh. 7, Declaration of Dr. Joram Hopenfeld (May 12, 2006) (“Hopenfeld Decl.”).

Id. at 189, emphasis in original.

Thus, the contention deals solely with the adequacy of the program that Entergy proposes to implement, during the license renewal period after 2012, to manage aging of the steam dryer through a course of monitoring and inspections. Whatever positive or negative findings that may be made during steam dryer inspections during the period of the current license are irrelevant to the adequacy of the aging management program five years hence.

Also, under the terms of the existing license, Entergy is required to report to the NRC the results of its post-uprate steam dryer inspections starting with the recently completed inspection during RFO26 in May 2007. See paragraph M.6 of VY license, included in Exhibit 2 to John R. Hoffman's April 18, 2007 Declaration in support of Entergy's Summary Disposition Motion. Therefore, any fatigue caused steam dryer cracks identified during those inspections would be subject to review by the Staff and would be remedied through appropriate corrective actions, therefore they would not be a concern during the license renewal period. (In fact, no fatigue induced cracks were identified in the recently concluded steam dryer inspection during RFO26, see Exhibit 1).

In any event, and assuming (for purposes of NEC's Motion) that the materials reflecting the steam dryer inspection during RFO26 are marginally relevant to the Board's ruling on Entergy's Summary Disposition Motion, those materials were promptly provided to NEC, as follows:

1. On June 18, 2007, Entergy provided to NEC's counsel seventeen Steam Dryer Indication Notification Reports prepared by GE Nuclear Energy describing the results of the inspection. See Exhibit 2 hereto.

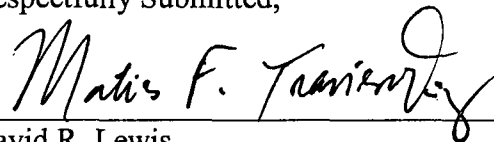
2. On the same date, Entergy provided to NEC's counsel Entergy's Engineering Report No. VY-RPT-07-00011 (Rev. 0, June 15, 2007), entitled "Evaluation of New RFO26 Steam Dryer Indication." See id.
3. On June 19, 2007, upon the execution by NEC counsel and one of its consultants of Non-Disclosure Agreements, Entergy provided to NEC's counsel two proprietary reports prepared by General Electric relating to the steam dryer inspection results: GE Nuclear report No. GENE 0000-0068-4787 (May 29, 2007) and GE Nuclear report No. GENE-0000-0068-7307 (June 4, 2007). See Exhibit 3 hereto.

In addition, NEC has had the opportunity to review a number of DVDs containing videotapes of the actual steam dryer inspections. That review took place on June 27, 2007.

In short, NEC has already received all relevant materials that relate to the May 2007 steam dryer inspection and does not need a full month to review them.

For the above described reasons NEC's Motion is lacking in merit and should be denied.

Respectfully Submitted,



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Matias F. Travieso-Diaz
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Counsel for Entergy

Dated: June 28, 2007

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

CERTIFICATE OF SERVICE

I hereby certify that copies of "Entergy's Response in Opposition to New England Coalition's Motion to Withhold Decision," dated June 28, 2007, were served on the persons listed below by deposit in the U.S. Mail, first class, postage prepaid, or with respect to Judge Elleman by overnight mail, and where indicated by an asterisk by electronic mail, this 28th day of June, 2007.

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Matias F. Travieso-Diaz

Evaluation of Steam Dryer Indications

Introduction

During RFO26 steam dryer visual indications, flaw indications were reported in the dryer end plates for the internal vane assemblies. Most of these indications were previously identified in RFO25 and were evaluated by GE as being acceptable to leave as is per Reference 11. The intent of this paper is to evaluate one new indication identified during RFO26 and accept it as is.

Discussion

One new indication was found adjacent to weld HB-V04, located on bank B at the 0° end and is labeled as the 3rd indication on INR-IVVI-VYR26-07-10 Rev.1 (Reference 2). This indication is of similar appearance, orientation and size as those previously seen. Because of this it is being treated similar to those indications identified in RFO25. The remainder of indications on the steam dryer listed as References 1-10 were previously identified and show no signs of growth. These indications are acceptable to leave as is per GE evaluation GENE-0000-0047-2767 (Reference 11) performed in RFO25. Therefore, the one new indication described above is the only one requiring an evaluation.

It should be mentioned that not all indications identified in RFO25 were re-identified in RFO26. The reasons for this vary, but can be the limitations of the equipment, crud layers masking the surface of the indication or the technique of different examiners.

Evaluation of Indications

GE's evaluation in RFO25 cites IGSCC as being the likely cause of most of the indications previously observed. This is based on the jagged appearance and location in the weld heat affected zone (HAZ). The unit end plates may have cold work resulting from cold forming. Cold working Type 304 material can promote initiation of stress corrosion cracks when exposed to the BWR environment. The dryer unit end plates are located in the dryer interior and are not subjected to any direct main steam line acoustic loading. However, continued growth by fatigue cannot be ruled out. Nevertheless, all of these indications appear to have stopped without propagating into the vertical weld; this is indicative of IGSCC behavior as opposed to fatigue, since weld material is more resistant to IGSCC. The flanges have experienced a near infinite number of fluctuating load cycles and if fatigue driven, more significant cracking is likely to have occurred after many years of operation. IGSCC in steam dryers has been typically limited in depth and length since in many cases it is caused by cold work or weld induced residual stress.

The dryer unit end plate, with the indication, are securely attached and captured within the structure of the steam dryer bank assembly. The vertical edges of these end plates are attached to the dryer assembly with 3/16" fillet welds, each weld approximately 48" long. There were no relevant indications reported in these vertical welds. The geometric

configuration of the unit end plates is such that the steam dryer assembly mechanically captures the upper and lower edges. The reported horizontal indications were seen in the inlet side end plate flange. The vanes prevent inspection of the central end plate surface, but inspection of the outlet side end plate flanges at both locations found no indications. If it is postulated that the end plate horizontal indications propagate across the entire 8.75" unit end plate width including both the inlet and outlet side flange, such full width, through-thickness cracks would have no structural impact. Nor is there any concern for loose parts. The separated end plate sections are still attached and will continue to function.

Safety

The steam dryer assembly has no safety function. See BWRVIP-06A for additional discussion of steam dryer assembly safety. The flaw indications reported in the steam dryer INR's from RFO26 will not likely result in any lost parts at operating conditions. Therefore, there is no safety concern with continued operation with the Reference 1-10 indications left as is.

Conclusions and Recommendations

The dryer unit end plates flaw assessment is based on the following factors: (1) it is a highly redundant structure and there is no structural consequence of the cracking and (2) postulated significant flaw extension leading to the flaw reaching the full section of the channel geometry would not create the opportunity for loose parts. Field experience supports this as-is operation decision in the context that the indications will be re-inspected at the next outage. It is recommended that the new visual indication given in Reference 2 be accepted as is. Repair is not recommended.

References

1. GE INR-IVVI-VYR26-07-09 Rev. 1
2. GE INR-IVVI-VYR26-07-10 Rev. 1
3. GE INR-IVVI-VYR26-07-11
4. GE INR-IVVI-VYR26-07-12
5. GE INR-IVVI-VYR26-07-13
6. GE INR-IVVI-VYR26-07-14
7. GE INR-IVVI-VYR26-07-15
8. GE INR-IVVI-VYR26-07-16
9. GE INR-IVVI-VYR26-07-18
10. GE INR-IVVI-VYR26-07-19
11. GENE-0000-0047-2767



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June 18, 2007

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BY OVERNIGHT MAIL

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

Re: Steam Dryer Inspection Documentation

Dear Ms. Tyler:

As discussed at the telephone prehearing conference with the Licensing Board in the above captioned proceeding, an inspection of the steam dryer was conducted during the May 2007 refueling outage (RFO26) at the Vermont Yankee Nuclear Station ("VY"). A number of reports were generated as a result of the inspection, which have now become available.

Enclosed with this letter are seventeen (17) Steam Dryer Indication Notification Reports prepared by GE Nuclear Energy describing the results of the inspection. Also enclosed is Entergy's Engineering Report No. VY-RPT-07-00011 (Rev. 0, June 15, 2007), entitled "Evaluation of New RFO26 Steam Dryer Indication."

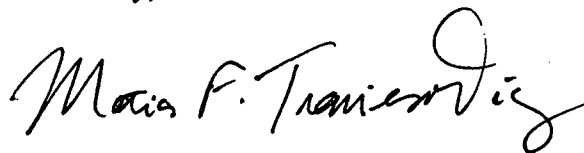
In addition to the documents enclosed herewith, GE Nuclear prepared two evaluation reports, Nos. GENE 0000-0068-4787 (May 29, 2007) and GENE-0000-0068-7307 (June 4, 2007) that evaluate the indications observed during the steam dryer inspections. These two reports are not enclosed because they are proprietary to GE. They are, however, available for inspection at the VY site.

Karen Tyler, Esq.
June 18, 2007
Page 2

The documents enclosed herewith will be formally produced in the Eighth Supplemental Disclosure on July 5, 2007. The two additional reports prepared by GE Nuclear will be listed in the privilege log that will accompany the July 5, 2007 disclosure.

Please note that in making these documents available to NEC we are not admitting that they are in any way relevant to Entergy's pending motion for summary disposition of NEC Contention 3 (steam dryer).

Sincerely,

A handwritten signature in black ink, reading "Matias F. Travieso-Diaz". The signature is written in a cursive style with a large, looped initial "M".

Matias F. Travieso-Diaz

Enclosures

cc: Mary Baty, Esq. (w/enclosures)
Service List (w/o enclosures)



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June 19, 2007

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BY OVERNIGHT MAIL

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

Re: Proprietary Documentation

Dear Ms. Tyler:

We are in receipt of the electronic version of your letter of June 18, 2007 enclosing non-disclosure agreements executed by you, Andrew Raubvogel, Ulrich White, and Ronald Shems. Please send the original letter and executed agreements by mail at your earliest convenience.

Enclosed with this letter are four proprietary documents recently identified to you as relevant to NEC Contentions 2 and 3. They are:

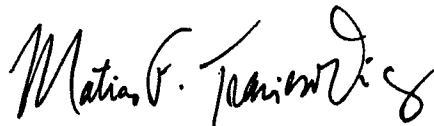
1. Structural Integrity Associates report "Environmental Fatigue Analysis for the Vermont Yankee Reactor Pressure Vessel Feedwater Nozzles" (unredacted).
2. Structural Integrity Associates report "Summary Report of Plant-Specific Environmental Fatigue Analyses for the Vermont Yankee Nuclear Power Station" (unredacted).
3. GE Nuclear report No. GENE 0000-0068-4787 (May 29, 2007)
4. GE Nuclear report No. GENE-0000-0068-7307 (June 4, 2007).

Karen Tyler, Esq.
June 19, 2007
Page 2

Please note that in making the two GE reports available to NEC we are not admitting that they are in any way relevant to Entergy's pending motion for summary disposition of NEC Contention 3 (steam dryer).

Also please keep in mind that only the above four named individuals, who have executed a Non-Disclosure Agreement, can review the enclosed proprietary documents.

Sincerely,

A handwritten signature in black ink, appearing to read "Matias F. Travieso-Diaz". The signature is written in a cursive style with a large, stylized "D" at the end.

Matias F. Travieso-Diaz

Enclosures