

May 10, 2007 (7:21am)

UNITED STATES
NUCLEAR REGULATORY COMMISSIONOFFICE OF SECRETARY
RULEMAKINGS AND
ADJUDICATIONS STAFFBefore 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.)	ASLB No. 06-849-03-LR
)	
(Vermont Yankee Nuclear Power Station))	

**NEW ENGLAND COALITION, INC.'S (NEC) OPPOSITION
TO ENTERGY'S MOTION FOR SUMMARY DISPOSITION OF NEC'S
CONTENTION 3 (STEAM DRYER)**

Pursuant to 10 C.F.R. § 2.1205(b), New England Coalition, Inc. (NEC) opposes Entergy Nuclear Vermont Yankee, LLC and Entergy Nuclear Operations, Inc.'s (Entergy) Motion for Summary Disposition of NEC's Contention 3 (Steam Dryer). Summary judgment is inappropriate because facts material to NEC's Contention 3 are in genuine dispute. NEC's opposition is supported by NEC's attached Statement of Disputed Material Facts and Response to Entergy's Statement of Material Facts Regarding NEC Contention 3 On Which no Genuine Dispute Exists, and the Third Declaration of Joram Hopenfeld (Exhibit 1).

I. INTRODUCTION

NEC's Contention 3 takes issue with Entergy's methods of estimating and predicting stress loads on the steam dryer as a necessary component of its steam dryer aging management plan. NEC specifically challenged Entergy's use of the Acoustic Circuit Model (ACM) and Computational Fluid Dynamics Model (CFD) to estimate stress loads. In admitting Contention 3, the Atomic Safety and Licensing Board ("the Board") characterized it, in part, as an argument "that, even with [monitoring pursuant to

GE-SIL-644], reliance on the [ACM and CFD models] during the renewal period that starts in 2012 is inappropriate.” *In the Matter of Entergy Nuclear Vermont Yankee, LLC, and Entergy Nuclear Operations, Inc. (Vermont Yankee Nuclear Power Station)*, 64 NRC 131, 191 (2006).

Entergy now contends that its steam dryer aging management program will not involve the use of the CFD and ACM models or any other analytical tool to estimate stress loading. As explained in the attached Third Declaration of Joram Hopenfeld, Entergy’s claim that it will make no estimate of stress loading in its aging management program is not credible. Exhibit 1, Third Declaration of Joram Hopenfeld (“Hopenfeld Declaration 3”) ¶¶ 5-7. An aging management plan that consists solely of visual inspection and parameter monitoring would not be sufficient to ensure the dryer’s structural integrity. *Id.* at ¶ 5.

A hearing before the Atomic Safety and Licensing Board (“the Board”) is necessary to determine:

- (1) to what extent Entergy’s steam dryer aging management plan relies on Entergy’s analysis of stress loads on the steam dryer performed using the Acoustic Circuit (ACM) and Computational Fluid Dynamics (CFD) models; and
- (2) the validity of Entergy’s ACM and CFD model-based analysis of steam dryer stress loads.

In the alternative, if Entergy actually plans to rely upon an aging management program that does not involve any stress load analysis, then a hearing before the Board is necessary to determine whether such a program is adequate to protect public safety during the renewed license term.

I. ARGUMENT

A. MATERIAL FACTS ARE IN GENUINE DISPUTE.

1. Facts concerning Entergy's use of the ACM and CFD models and the validity of these models are in genuine dispute.

Facts concerning whether and how Entergy will use the ACM and CFD models as part of its steam dryer aging management plan are in genuine dispute. Entergy has made highly inconsistent statements in this proceeding regarding this issue. On Answer, Entergy stated that its steam dryer aging management plan would involve use of these models together with additional monitoring and inspection, as described in the Vermont Yankee extended power uprate (EPU) proceedings and Entergy's EPU application. *See e.g.*, Entergy Answer at 28 ("As the ACRS determined, the program instituted by Entergy to identify crack formation in the steam dryer includes, besides the analytical tools challenged by Dr. Hopenfeld, additional monitoring, strain measurements during the power ascension program, and added post-EPU inspections. . . . NEC fails to address this material and provides no basis to dispute the adequacy of the described measures."). In its Motion for Reconsideration, Entergy made the different claim that its plan will not involve use of the ACM and CFD models, and argued that NEC's reliance on the EPU record was a "fundamental factual error." Entergy Motion for Reconsideration at 4, 4 n.3.

Now, on motion for summary judgment, Entergy represents that its aging management plan will not involve use of the ACM or CFD models or rely on the results of its prior analysis using these models. Declaration of John R. Hoffman ("Hoffman Declaration") ¶¶ 23-24; Entergy Motion for Summary Disposition at 7 ("The proposed aging management program for the steam dryer during the license renewal period is based solely on monitoring of plant parameters and periodic visual examinations of the

steam dryer in accordance with accepted industry guidance.”) (emphasis added).

Moreover, Entergy represents that its program will not involve the use of any other analytical tool to estimate stress loads on the steam dryer. *Id.* Rather, Entergy now claims that its steam dryer aging management program during the license renewal period will consist exclusively of periodic visual inspection and monitoring of plant parameters as described in GE-SIL-644, General Electric’s recommendations for maintenance of the steam dryers it manufactures. *Id.*

As stated in the attached Third Declaration of Dr. Joram Hopenfled, Entergy’s claim that its steam dryer aging management program will not involve any means of estimating and predicting stress loads on the dryer simply is not credible. Exhibit 1, Third Declaration of Dr. Joram Hopenfled (“Hopenfled Declaration 3”) ¶ 6. A valid steam dryer aging management program must include some means of estimating and predicting stress loads on the steam dryer, and determining that peak loads will fall below ASME fatigue limits. Hopenfled Declaration ¶ 5.

Entergy represents that it did conduct this analysis as part of the Vermont Yankee EPU power ascension testing using the ACM and CFD models. Hoffman Declaration ¶¶ 11-13. Entergy now proposes sole reliance on visual inspection and plant parameter monitoring during the renewed license period. Such reliance must be based on Entergy’s previous ACM/CFD-based predictions that stress loads on the dryer will not cause fatigue failures. Hopenfled Declaration ¶ 7. NEC’s concerns regarding the validity of the ACM and CFD models and the stress and fatigue analysis Entergy conducted using these models therefore remain current and relevant.

Entergy has submitted no evidence in support of its Motion for Summary Judgment addressing the merits of NEC's Contention 3 argument that the ACM and CFD models were not properly benchmarked and their predictions are unreliable.¹ See, Declaration of Dr. Joram Hopenfeld in support of NEC's Petition to Intervene ("Hopenfeld Declaration 1") ¶ 19. Facts material to this issue remain in genuine dispute as well.

2. In the alternative, NEC disputes the validity of a steam dryer aging management program consisting solely of visual inspection and parameter monitoring pursuant to GE-SIL-644.

In the alternative, NEC disputes the validity of a steam dryer aging management program that involves no means of estimating and predicting stress loads on the dryer. NEC's Contention 3 addresses the validity of the ACM and CFD models, because these are, to NEC's knowledge (and the record), the tools Entergy has used in its steam dryer stress and fatigue analysis. But NEC's broader Contention 3 concern is that Entergy must develop a valid steam dryer aging management plan that involves both a reliable means of estimating and predicting dryer stress loads, and a reasonable program of visual inspection and monitoring in light of the load analysis.

A program consisting solely of parameter monitoring and visual inspection per GE-SIL-644 would be inadequate to ensure that the dryer will not generate loose parts that can damage plant safety components, and therefore inadequate to protect public

¹ Indeed, the Vermont Public Service Board recently required Entergy to increase its financial guarantees protecting Vermont utilities and ratepayers in the event of Vermont Yankee plant power derates due to uprate-related steam dryer failures. This decision was based in part on the Board's concerns about "whether the [Power Ascension Testing] methodology captures all of the potential uprate-related failure causes for the steam dryer and whether Entergy VY is presently at the top part of the learning curve." *Petition of Vermont Department of Public Service for an investigation into the reliability of the steam dryer and resulting performance of the Vermont Yankee Nuclear Power Station under uprate conditions*, Docket No. 7195 (Order 9/18/06) at 35. Entergy has appealed this decision to the Vermont Supreme Court.

safety. Entergy concedes that parameter monitoring alone is of little value. *See*, Hoffman Declaration, Exhibit 5 at 6 (“monitoring steam moisture content and other reactor parameters does not consistently predict imminent dryer failure nor will it preclude the generation of loose parts.”); *See also*, Hopenfeld Declaration 3 ¶ 4 (moisture, steam flow, water level, and dome pressure monitoring indicate the formation of only those cracks that increase moisture carryover; those cracks that do not lead to significant moisture carryover may grow undetected). The history of steam dryer cracking at the Vermont Yankee plant indicates that Entergy’s former programs of visual inspection have been ineffective in detecting/ preventing cracking. *See*, ML042080530, 2004-07-26, IR 05000271-04-003, 04/01/04 through 06/30/04, for Vermont Yankee Nuclear Power Station, Refueling and Outage Activities; ML053210401, 2005-12-16, G20050776/LTR-05-0554, Senator Jeffords, Senator Leahy, Representative Oliver, and Representative Sanders Letter re: Concerns Over Discovery of More Than 40 Additional Cracks in the Steam Dryer at VY. Fundamentally, both valid stress load analysis and a program of visual inspection are necessary components of a steam dryer aging management plan; neither is sufficient in itself. Hopenfeld Declaration 3 ¶ 5.

B. ENTERGY’S MOTION SHOULD NOT BE DECIDED UNTIL RESULTS OF THE STEAM DRYER INSPECTION PLANNED DURING THE UPCOMING VERMONT YANKEE REFUELING OUTAGE ARE RELEASED.

NEC understands that the first Vermont Yankee plant refueling outage since EPU is scheduled in May 2007. The dryer will be inspected. Complete documentation of this inspection of the steam dryer should be made available to the parties and the Board before decision of Entergy’s Motion.

C. ENTERGY’S DUTY TO CONSULT

Entergy failed to appropriately consult with NEC regarding this motion for summary judgment. Entergy's counsel contacted NEC's counsel, pursuant to 10 C.F.R. § 2.323(b) and the Board's Initial Scheduling Order, on April 6, 2007. Entergy wanted NEC to stipulate to undisputed facts, but would not share the Hoffman declaration on which the facts were based.

In addition, NEC's counsel informed Entergy's counsel that Ray Shadis, NEC's consultant who has coordinated NEC's participation in this proceeding, and the sole person from whom NEC's counsel receives authorization for this proceeding, was hospitalized following major surgery at the time Entergy's counsel requested stipulation to facts. NEC's counsel informed Entergy's counsel that Mr. Shadis would be on medical leave until at least the end of April, and requested postponement of the filing until early May. Entergy's counsel was not willing to postpone and instead filed its motion at issue here. Pertinent e-mail correspondence between Entergy and NEC counsel is attached as Exhibit 2.

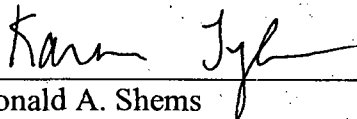
III. CONCLUSION

Entergy's Motion for Summary Disposition should be denied.

May 9, 2007

New England Coalition, Inc.

by:



Ronald A. Shems

Karen Tyler

SHEMS DUNKIEL KASSEL & SAUNDERS PLLC

For the firm

Attorneys for NEC

UNITED STATES
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.)	ASLB No.06-849-03-LR
)	
(Vermont Yankee Nuclear Power Station))	

**NEW ENGLAND COALITION, INC.'S (NEC) STATEMENT OF DISPUTED
MATERIAL FACTS AND RESPONSE TO ENTERGY'S STATEMENT OF
MATERIAL FACTS REGARDING NEC CONTENTION 3 ON WHICH NO
GENUINE DISPUTE EXISTS**

Entergy Statement 1. In connection with its extended power uprate ("EPU") application for the Vermont Yankee Nuclear Power Station ("VY"), Entergy performed two types of complementary analyses to evaluate the pressure loads acting on the steam dryer during operation at EPU conditions: the computational fluid dynamics ("CFD") and acoustic circuit model ("ACM") analyses. The calculated stresses obtained from the CFD and ACM analyses were inputs to a finite element analysis model that calculated peak stresses for specific steam dryer locations. Those peak stresses were compared to the fatigue limits for the dryer material specified in the ASME Code. The resulting maximum calculated stresses for EPU conditions were found to be well within the ASME fatigue endurance limit.

NEC Response. Admitted that these were the ACM and CFD-based analyses Entergy performed in connection with its extended power uprate application for the Vermont Yankee Plant. Denied that the ACM and CFD models were

properly benchmarked, and that ACM/CFD-based analyses accurately estimated peak stresses on the steam dryer. Declaration of Dr. Joram Hopenfeld, Exhibit 7 to NEC's Petition to Intervene ("Hopenfeld Declaration 1") ¶¶ 19, 20.

Entergy Statement 2. Entergy also installed 32 additional strain gages on the main steam line piping during the fall 2005 refueling outage. The data measured by the strain gages and other complementary instrumentation were monitored frequently during EPU power ascension to verify that the structural limits for the steam dryer were not reached.

NEC Response. Admitted that Entergy performed this analysis. Denied that this analysis was valid. Id.

Entergy Statement 3. As an independent confirmation of the structural integrity of the steam dryer during operation at uprate levels, VY instituted a program of dryer monitoring and inspections to provide assurance that the structural loadings under EPU conditions did not result in the formation or propagation of vibration-induced cracks on the dryer.

NEC Response. Admitted that Entergy implemented a program of monitoring and inspection pursuant to Vermont Yankee Facility Operating License

Amendment No. 229. This amendment will expire before the beginning of the renewed license term. This program therefore does not constitute a steam dryer aging management program effective throughout the renewed license term.

Entergy Statement 4. The monitoring and inspection program measured the performance of the VY steam dryer during power ascension testing and operation as power was increased from the original licensed power level to full EPU conditions. Following completion of EPU power ascension testing, Entergy has continued to periodically monitor plant operational parameters that could be indicative of loss of steam dryer structural integrity.

NEC Response. Admitted that Entergy has conducted EPU power ascension testing, and that Entergy continues to monitor plant parameters. Denied that the power ascension testing accurately predicted the steam dryer's structural integrity throughout the renewed license term, and that plant parameter monitoring and visual inspection, by themselves, are effective to prevent the generation of loose steam dryer parts that are a hazard to public safety, or other steam dryer failures. *Id.*; Third Declaration of Joram Hopenfeld, Exhibit 1 to NEC's Opposition to Entergy's Motion for Summary Disposition of New England Coalition's Contention 3 (Steam Dryer) ("Hopenfeld Declaration 3") ¶¶ 4, 5.

Entergy Statement 5. In addition to monitoring of plant operational parameters, the monitoring and inspection program calls for the steam dryer be inspected during plant refueling outages in the fall of 2005, spring of 2007, fall of 2008, and spring of 2010. The inspections are conducted in accordance with the recommendations of General Electric's Service Information Letter ("SIL") No. 644, Revision 1 (Nov. 9, 2004), ADAMS Accession No. ML050120032 ("GE-SIL-644"). The provisions of

GE-SIL-644 also govern the manner in which monitoring of plant parameters is being conducted since VY has started operating at EPU levels.

NEC Response. Admitted that Entergy implemented a program of monitoring and inspection pursuant to Vermont Yankee Facility Operating License Amendment No. 229. This amendment will expire before the beginning of the renewed license term. This program therefore does not constitute a steam dryer aging management plan effective throughout the renewed license term. Further, steam dryer inspection during the Spring, 2007 refueling will provide highly relevant information. Efficiency and economy compel that such information be available in resolving this motion. The alternative is to file new contentions at greater burden and expense for the Board and parties.

Entergy Statement 6. This commitment to follow the GE-SIL-644 recommendations is reflected in a licensing condition by which Entergy is required to take specified actions to ensure that the structural integrity of the VY steam dryer is maintained, as set forth in the VY operating license.

NEC Response. Admitted that Entergy implemented a program of monitoring and inspection pursuant to Vermont Yankee Facility Operating License Amendment No. 229. This amendment will expire before the beginning of the renewed license term. This program therefore does not constitute a steam dryer aging management program effective throughout the renewed license term.

Entergy Statement 7. As required by the VY operating license, VY is operating under a program that provides for long-term monitoring of plant parameters

potentially indicative of steam dryer failure, plus inspections at three consecutive refueling outages, all in accordance with GE-SIL-644. The monitoring that has been performed under the EPU program, and the inspections conducted to date, confirm that fatigue-induced cracking of the VY steam dryer is not occurring.

NEC Response. Admitted that Entergy implemented a program of monitoring and inspection pursuant to Vermont Yankee Facility Operating License Amendment No. 229. This amendment will expire before the beginning of the renewed license term. This program therefore does not constitute a steam dryer aging management program effective throughout the renewed license term. Denied that plant parameter monitoring and visual inspection, by themselves, are effective to prevent the generation of loose steam dryer parts that are a hazard to public safety, or other steam dryer failure.

Hopenfeld Declaration 1 ¶ 19; Hopenfeld Declaration 3 ¶¶ 4, 5. Denied that Entergy has confirmation that fatigue-induced cracking of the VY steam dryer is not occurring. ML042080530, 2004-07-26, IR 05000271-04-003, 04/01/04 through 06/30/04, for Vermont Yankee Nuclear Power Station, Refueling and Outage Activities; ML053210401, 2005-12-16, G20050776/LTR-05-0554, Senator Jeffords, Senator Leahy, Representative Oliver, and Representative Sanders Letter re: Concerns Over Discovery of More Than 40 Additional Cracks in the Steam Dryer at VY. NEC understands that the first post-uprate refueling outage and inspection of the VY steam dryer has not yet occurred, and is scheduled in May 2007. As stated above, resolution of this motion should await inspection during the May 2007 refueling.

Entergy Statement 8. The ongoing steam dryer monitoring and inspection program does not rely on the CFD and ACM analyses.

NEC Response. Denied. Entergy's steam dryer aging management plan must involve some means of estimating stress loads on the steam dryer. If Entergy does not intend to perform new stress load analysis during the renewed license term, it must rely on the CFD/ACM-based analysis that it has already performed. Hopenfeld Declaration 3 ¶¶ 5-7.

Entergy Statement 9. In its License Renewal Application, Entergy addressed aging management of the VY steam dryer as follows:

Cracking due to flow-induced vibration in the stainless steel steam dryers is managed by the BWR Vessel Internals Program. The BWR Vessel Internals Program currently incorporates the guidance of GE-SIL-644, Revision 1. VYNPS will evaluate BWRVIP-139 once it is approved by the staff and either include its recommendations in the VYNPS BWR Vessel Internals Program or inform the staff of VYNPS's exceptions to that document.

Application, § 3.1.2.2.11 "Cracking due to Flow-Induced Vibration."

NEC Response. Admitted.

Entergy Statement 10. VY is implementing the applicable monitoring and visual inspection guidelines in GE SIL-644.

NEC Response. Admitted that Entergy has made this representation.

Entergy Statement 11. The aging management program for the VY steam dryer during the twenty-year license renewal period will consist of well-defined monitoring and inspection activities that are identical to those being conducted during the current post-EPU phase. The monitoring program will continue for the entire license renewal period. The inspection activities will include visual

inspections of the steam dryer every two refueling outages consistent with GE and BWR Vessel Internals Program (VIP) requirements.

NEC Response. Admitted that this is Entergy's representation. Denied that this is required as a condition of Entergy's Vermont Yankee plant operating license.

Entergy Statement 12. The aging management plan for the steam dryer at VY for the license renewal period does not depend on, or use, the CFD and ACM computer codes of the analyses conducted using those codes.

NEC Response. Denied. Id.

Entergy Statement 13. Dr. Hopenfled states that "[n]o matter which guidance Entergy follows, the status of the existing dryer cracks must be continuously monitored and assessed by a competent engineer. Entergy's steam dryer aging management plan does what Dr. Hopenfled requires, since it is based on continuous monitoring of plant parameters whose value is indicative of potential dryer cracking and crack propagation.

NEC Response. Denied. Plant parameter monitoring is ineffective to detect the formation or growth of all steam dryer cracks, does not consistently predict imminent dryer failure, and does not preclude the generation of loose parts. Hopenfled Declaration 1 ¶ 19; Hopenfled Declaration 3 ¶ 4.

Entergy Statement 14. Dr. Hopenfled also asserts that "Entergy's monitoring equipment does not measure crack propagation directly (because the strain gages are a distance away from the dryer) and therefore analytical tools would be required to interpret the data." The purpose of the monitoring equipment that was utilized

during the EPU power ascension phase (strain gages installed on the main steam lines) was not to measure crack propagation, but to monitor pressure fluctuations in the steam piping that translate to pressure loads and ultimately to stresses on the steam dryer, to ensure that values were below the maximum levels set by the ASME Code. The strain gages will not be used in the aging management program for the steam dryer during the license renewal period.

NEC Response. Admitted that Entergy represents that it will not use strain gages in its aging management program.

Entergy Statement 15. Dr. Hopenfled also states that "Entergy has not demonstrated that the dryer will not fail and scatter loose parts in between the visual inspections, especially during design basis accidents. DBA." The capability of the dryer to withstand design basis loads was demonstrated by the structural analyses and stress measurements performed as part of the EPU. Only superficial cracks have been observed in the VY steam dryer and those cracks have not shown any measurable growth in the successive dryer inspections. Periodic visual examinations of the steam dryer in accordance with the license condition will continue to ensure that unacceptable flaw development or growth is not occurring.

NEC Response. Admitted that Dr. Hopenfled has stated this concern. Denied that the structural analysis and stress measurements Entergy performed as part of the EPU proved the dryer's ability to withstand design basis loads.

Hopenfeld Declaration 1 ¶¶ 19,20; Hopenfled Declaration 3 ¶¶ 5-7. Denied that an increasing number of cracks in the VY steam dryer have not been observed. ML042080530, 2004-07-26, IR 05000271-04-003, 04/01/04 through

06/30/04, for Vermont Yankee Nuclear Power Station, Refueling and Outage Activities; ML053210401, 2005-12-16, G20050776/LTR-05-0554, Senator Jeffords, Senator Leahy, Representative Oliver, and Representative Sanders

Letter re: Concerns Over Discovery of More Than 40 Additional Cracks in the Steam Dryer at VY. Denied that periodic visual examination will be sufficient to ensure that unacceptable flaw development or growth is not occurring.

Hopenfeld Declaration 3 ¶¶ 5-7. Denied that License Amendment 229 will govern Entergy's management of the steam dryer during the renewed license term. This license amendment will expire during the current term.

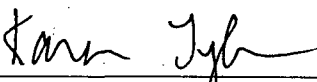
Entergy Statement 16. The purpose of the ACM and CFD analyses was to develop peak loads for the analysis of the steam dryer as a forward-looking prediction that no unacceptable fatigue loadings would develop as the power uprate was being implemented. The plant parameter monitoring and inspection program does not rely on the analyses performed during the implementation of the EPU and is sufficient to ensure satisfactory steam dryer performance during the license renewal period.

NEC Response. Denied that Entergy's plant parameter monitoring and inspection program does not rely on the analyses performed during implementation of the EPU. Id. Denied that plant parameter monitoring and inspection that is not supported by any estimate of stress loading on the steam dryer is sufficient to ensure safe dryer performance during the entire license renewal period. Id.

May 9, 2007

New England Coalition, Inc.

by:



Ronald A. Shems

Karen Tyler

SHEMS DUNKIEL KASSEL & SAUNDERS PLLC

For the firm

Attorneys for NEC

EXHIBIT 1

**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

In the Matter of)	
)	
ENTERGY NUCLEAR VERMONT YANKEE, LLC)	Docket No. 50-271-LR
and ENTERGY NUCLEAR OPERATIONS, INC.)	ASLB No. 06-849-03-LR
)	
Vermont Yankee Nuclear Power Station)	

THIRD DECLARATION OF DR. JORAM HOPENFELD

1. My name is Dr. Joram Hopenfled. The New England Coalition (NEC) has retained me as an expert witness in proceedings concerning the application of Entergy Nuclear Operations, Inc. ("Entergy") to renew its operating license for the Vermont Yankee Nuclear Power Station ("Vermont Yankee") for twenty years beyond the current expiration date of March 21, 2012.
2. I am a mechanical engineer and hold a doctorate in engineering. I have 45 years of professional experience in the fields of instrumentation, design, project management, and nuclear safety, including 18 years in the employ of the U.S. Nuclear Regulatory Commission. My curriculum vitae was previously filed in this proceeding as an attachment to my declaration in support of NEC's Petition to Intervene.
3. I have reviewed the Declaration of John R. Hoffman in support of Entergy's Motion for Summary Disposition of New England Coalition's Contention 3 (Steam Dryer), and all Exhibits thereto.
4. Entergy now contends that its steam dryer aging management plan will consist solely of periodic visual inspection and monitoring of plant parameters. Entergy also,

however, acknowledges that "monitoring steam moisture content and other reactor parameters does not consistently predict imminent dryer failure nor will it preclude the generation of loose parts." Declaration of John R. Hoffman, Exhibit 5 at 6. I agree that plant parameter monitoring is not effective to prevent the generation of loose parts that can damage safety-related plant components, as I have previously testified in this proceeding. I also specifically note that parameter monitoring (moisture, steam flow, water level, dome pressure) may indicate the formation of only those steam dryer cracks that increase moisture carryover; those cracks that do not lead to significant moisture carryover may continue to grow undetected.

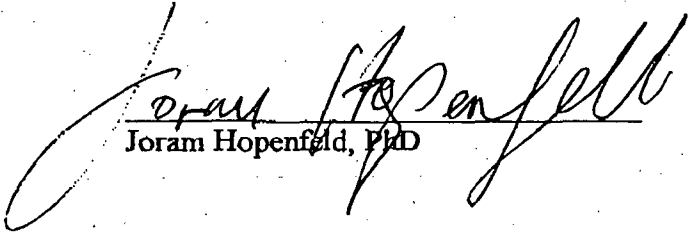
5. A valid steam dryer aging management program must include both (1) visual inspection of the steam dryer; and some (2) means of estimating and predicting stress loads on the steam dryer, establishing dryer flow induced vibration load fatigue margins, and demonstrating that stresses on the dryer at selected locations will fall below ASME fatigue limits. The ability to accurately assess and predict stress loads that may act on the dryer during the fuel cycle is essential to ensure the dryer's structural integrity. The visual inspection program and any repairs to the dryer must be informed by knowledge of dryer loads. A program of parameter monitoring and visual inspection alone is inadequate.

6. Entergy's claim that its steam dryer aging management program will not involve any means of estimating and predicting stress loads on the dryer, and will consist solely of visual inspection and plant parameter monitoring as described in GE-SIL-644 therefore is not credible.

7. Entergy represents that it previously used the computational fluid dynamics (CFD) and acoustic circuit (ACM) models to calculate peak stresses on the steam dryer prior to EPU operation of the Vermont Yankee plant, and to determine that peak stresses during operation at EPU conditions would be within the ASME fatigue endurance limit. Entergy's sole reliance on periodic visual inspections and plant parameter monitoring during the renewed license period must depend on extrapolation of this ACM/CFD analysis, and must be based on Entergy's belief that the ACM/CFD-based predictions that stress loads on the dryer will not cause fatigue failures are reliable.

I declare under penalty of perjury that the foregoing is true and correct.

Executed this 8th day of May, 2007 at Rockville, Maryland.


Joram Hopenfeld, PhD

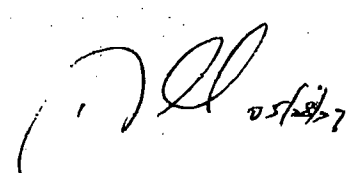

THIERRY K. SOPON
Notary Public State of Maryland
My Commission Expires Sept. 15, 2009

EXHIBIT 2

ktyler@sdkslaw.com

From: Travieso-Diaz, Matias F. [matias.travieso-diaz@pillsburylaw.com]
Sent: Monday, April 09, 2007 10:38 AM
To: ktyler@sdkslaw.com
Cc: may@nrc.gov; Sarah.hofmann@state.vt.us; rshems@sdkslaw.com; Anthony Roisman; Lewis, David R.
Subject: RE: Statement of Facts not in Dispute re NEC Contention 3 in VY License Renewal Proceeding
Importance: High

Our final position on this matter is simple: A one month delay in NEC taking a position on whether it agrees or disagrees with the facts set forth in the Statement of Material Fact on NEC Contention 3 we sent you last Friday is on its face unreasonable and is in direct violation of the Board's November 17, 2006 Scheduling Order, which states (para. 8): "...In the case of a motion for summary disposition, the Board suggests that the "sincere effort" should include informing the opposing party or parties, prior to filing the motion, of the material facts about which the movant believes there is no genuine dispute. Likewise, the opposing party must be prepared to respond **very promptly**, advising whether it agrees that there is no genuine dispute concerning those facts" (emphasis added). In addition to being in violation of the Board's order, NEC's attempt to delay by a month taking a position on the Statement is prejudicial to Entergy because it would delay by at least that much the filing of a motion for summary disposition, getting a ruling on the motion from the Board, and preparing that contention for hearing should the motion be denied.

For those reasons, please be advised that if we have not received NEC's position on the facts asserted in the the Statement by next Monday, April 16, we will proceed to file a motion for summary disposition of NEC Contention 3 on or about that date.

From: ktyler@sdkslaw.com [mailto:ktyler@sdkslaw.com]
Sent: Monday, April 09, 2007 10:17 AM
To: Travieso-Diaz, Matias F.
Cc: may@nrc.gov; Sarah.hofmann@state.vt.us; rshems@sdkslaw.com; 'Anthony Roisman'; Lewis, David R.
Subject: RE: Statement of Facts not in Dispute re NEC Contention 3 in VY License Renewal Proceeding

We will let Ray Shadis know that we need his attention to this as soon as he feels well enough. Before his surgery, we were told that he hoped to be back at work by the end of April, and I don't have any information beyond that at this time. We should be able to respond well in advance of the June 15 deadline. Please let me know your final position.

From: Travieso-Diaz, Matias F. [mailto:matias.travieso-diaz@pillsburylaw.com]
Sent: Friday, April 06, 2007 5:19 PM
To: ktyler@sdkslaw.com
Cc: may@nrc.gov; Sarah.hofmann@state.vt.us; rshems@sdkslaw.com; Anthony Roisman; Lewis, David R.
Subject: RE: Statement of Facts not in Dispute re NEC Contention 3 in VY License Renewal Proceeding

According to the Board's Scheduling Order, the deadline for filing motions for summary disposition is June 15, 2007, not August. We need to get going on this matter sooner rather

5/8/2007

than later.

From: ktyler@sdkslaw.com [mailto:ktyler@sdkslaw.com]
Sent: Friday, April 06, 2007 5:13 PM
To: Travieso-Diaz, Matias F.
Subject: RE: Statement of Facts not in Dispute re NEC Contention 3 in VY License Renewal Proceeding

Matias: Of course we are willing to confer to narrow the issues in dispute. As we have explained, however, we cannot stipulate to facts (substantive matters) without NEC's authorization, which only Ray Shadis can provide. He is on medical leave for the next 3-4 weeks. We are unclear as to why a 3-4 week delay is prejudicial to your client, given that the FEIS and SER are not scheduled until August.

Thank you for your consideration.

- Karen

From: Travieso-Diaz, Matias F. [mailto:matias.travieso-diaz@pillsburylaw.com]
Sent: Friday, April 06, 2007 4:51 PM
To: ktyler@sdkslaw.com; Ron Shems; may@nrc.gov; Sarah.hofmann@state.vt.us; Mitzi Young
Cc: Lewis, David R.; Anthony Roisman
Subject: RE: Statement of Facts not in Dispute re NEC Contention 3 in VY License Renewal Proceeding

Karen: I assure you that the facts asserted in Mr. Hoffman's Declaration are the same as those set forth in the Statement that I sent you, so there can be no argument that Entergy is "trying to hide the ball". We are sharing those facts with you in an effort to narrow the issues. We are also trying to comply with the Board's directive in its November 17, 2006 scheduling order that the parties work towards the clarification, simplification or specification of the issues, which is to the benefit of all the parties. If you are unable to assist in these endeavors we will have to advise the Board that it has not been possible to work together to narrow the factual issues in dispute on this contention.

With respect to Ron's message of earlier today, we are not asking NEC to make a substantive filing but only to take a position on whether NEC agrees or disagrees with the facts set forth in the Statement. Your technical consultant Dr. Hopenfeld should be able to assist NEC in taking a position whether it agrees or disagrees with those asserted facts. Under the circumstances, a month delay in receiving your response would be unwarranted and would be prejudicial to Entergy because there are other deadlines in the case (as set forth in the Scheduling Order) that have to be met and Entergy needs to narrow the issues in controversy as soon as it can in order to meet those deadlines.

From: ktyler@sdkslaw.com [mailto:ktyler@sdkslaw.com]
Sent: Friday, April 06, 2007 2:54 PM
To: 'Ron Shems'; Travieso-Diaz, Matias F.; may@nrc.gov; Sarah.hofmann@state.vt.us; 'Mitzi Young'
Cc: Lewis, David R.; 'Anthony Roisman'
Subject: RE: Statement of Facts not in Dispute re NEC Contention 3 in VY License Renewal Proceeding

Matias:

Previous pleadings have been somewhat inconsistent and therefore unclear regarding how Entergy proposes to manage the steam dryer and whether the proposed program is obligatory or discretionary during the full renewed license term. I see no reason to "hide the ball" regarding these issues. We could not advise NEC to stipulate to

5/8/2007

facts regarding Entergy's program without reviewing the supporting declaration.

- Karen

From: Ron Shems [mailto:rshems@sdkslaw.com]

Sent: Friday, April 06, 2007 1:42 PM

To: 'Travieso-Diaz, Matias F.'; ktyler@sdkslaw.com; may@nrc.gov; Sarah.hofmann@state.vt.us; Mitzi Young

Cc: 'Lewis, David R.'; Anthony Roisman

Subject: RE: Statement of Facts not in Dispute re NEC Contention 3 in VY License Renewal Proceeding

Hi Matias,

I understand your concern and agree that Ray is not a fact witness. But he is our client. NEC is a very small organization and he authorizes our filings. No one else is available within the client organization to fill his shoes.

I would not be comfortable making a substantive filing without client input and consent. Can you please reconsider your position in light of the facts that I am sharing with you. If the relatively minor requested delay needed for Ray's recovery is somehow prejudicial to Entergy, please provide facts so that we can discuss and negotiate in good faith.

I will wait for Karen's return to further discuss Mr. Hoffman's (I assume no relation to Sarah) declaration.

Thank you very much. I appreciate your patience and courtesy.

--Ron

From: Travieso-Diaz, Matias F. [mailto:matias.travieso-diaz@pillsburylaw.com]

Sent: Friday, April 06, 2007 12:49 PM

To: ktyler@sdkslaw.com; may@nrc.gov; Sarah.hofmann@state.vt.us; rshems@sdkslaw.com

Cc: Lewis, David R.

Subject: RE: Statement of Facts not in Dispute re NEC Contention 3 in VY License Renewal Proceeding

Karen: I do not believe it is reasonable for us to wait three or four weeks for your response to our inquiry, particularly since Mr.. Shadis is not a fact witness who can address the issues raised in the statement that I sent you. Please provide a timely response (e.g., within the next week). I also do not believe you need to see Mr.. Hoffman's Declaration to agree or disagree with the factual statements that we enclosed. Regards,

From: ktyler@sdkslaw.com [mailto:ktyler@sdkslaw.com]

Sent: Friday, April 06, 2007 12:41 PM

To: Travieso-Diaz, Matias F.; may@nrc.gov; Sarah.hofmann@state.vt.us; rshems@sdkslaw.com

Cc: Lewis, David R.

Subject: RE: Statement of Facts not in Dispute re NEC Contention 3 in VY License Renewal Proceeding

Matias:

We will need until the first week of May to respond. Ray Shadis underwent major surgery earlier this week, and

5/8/2007

will be recuperating and unavailable to us until then. It would be helpful if you could provide us with a copy of John Hoffman's declaration cited in the statement of facts.

Thank you,
Karen Tyler

From: Travieso-Diaz, Matias F. [mailto:matias.travieso-diaz@pillsburylaw.com]
Sent: Friday, April 06, 2007 11:39 AM
To: may@nrc.gov; Sarah.hofmann@state.vt.us; rshems@sdkslaw.com; ktyler@sdkslaw.com
Cc: Lewis, David R.
Subject: Statement of Facts not in Dispute re NEC Contention 3 in VY License Renewal Proceeding

Dear Counsel: We have carefully reviewed the facts relating to NEC Contention 3 (steam dryer) in the VY license renewal proceeding and have come to the conclusion that summary disposition of that contention is appropriate because there are no material facts in dispute and Entergy is entitled to having the contention dismissed as a matter of law. Before filing a motion seeking summary disposition of the contention, we would like to elicit your views as to whether the factual prerequisites for such a motion exist.

Attached is a Statement of Material Facts on NEC Contention 3 as to which we believe no genuine dispute exists. Please advise as to: (a) whether you agree that there is no genuine dispute as to all or some of the facts enumerated in the attached statement so that those facts can be stipulated to; (b) as to those facts as to which you believe there is a genuine dispute, what the basis for the dispute is; and (c) whether there are other material facts, not listed in the enclosed statement, as to which there is a genuine dispute exists.

Please feel free to call me if you want to discuss this matter. Thanks,

<<Statement of Material Facts Not in Dispute re NEC Contention 3.doc>>

Matias F. Travieso-Diaz | Pillsbury Winthrop Shaw Pittman LLP

Tel: 202.663.8142 | Fax: 202.663.8007 | Cell: 703.472.6463
2300 "N" Street, NW | Washington, DC 20037-1122

Email: matias.travieso-diaz@pillsburylaw.com
Bio: www.pillsburylaw.com/Matias.travieso-diaz
www.pillsburylaw.com

=====

The contents of this message, together with any attachments, are intended only for the use of the individual or entity to which they are addressed and may contain information that is legally privileged, confidential and exempt from disclosure. If you are not the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this message, or any attachment, is strictly prohibited. If you have received this message in error, please notify the original sender or the Pillsbury Winthrop Shaw Pittman Help Desk at Tel: 800-477-0770 x4860 immediately by telephone or by return E-mail and delete this message, along with any attachments, from your computer. Thank you.

5/8/2007

**UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION**

Before the Atomic Safety and Licensing Board

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

CERTIFICATE OF SERVICE

I, Michelle Cronin, hereby certify that copies of the NEW ENGLAND COALITION, INC.'S, OPPOSITION TO ENTERGY'S MOTION FOR SUMMARY DISPOSITION OF NEW ENGLAND COALITION'S CONTENTION 3 (STEAM DRYER), in the above-captioned proceeding were served on the persons listed below, by U.S. Mail, first class, postage prepaid; by Fed Ex overnight to Judge Elleman; and, where indicated by an e-mail address below, by electronic mail, on the 9th day of May, 2007

Administrative Judge
Alex S. Karlin, Esq., Chair
Atomic Safety and Licensing Board
Mail Stop T-3 F23
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001
E-mail: ask2@nrc.gov

Administrative Judge
Thomas S. Elleman
Atomic Safety and Licensing Board Panel
5207 Creedmoor Road, #101
Raleigh, NC 27612
E-mail: elleman@eos.ncsu.edu

Office of Commission Appellate Adjudication
Mail Stop: O-16C1
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001
E-mail: OCAAmail@nrc.gov

Administrative Judge
Dr. Richard E. Wardwell
Atomic Safety and Licensing Board Panel
Mail Stop T-3 F23
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001
E-mail: rew@nrc.gov

Office of the Secretary
Attn: Rulemaking and Adjudications Staff
Mail Stop: O-16C1
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001
E-mail: hearingdocket@nrc.gov

Sarah Hofmann, Esq.
Director of Public Advocacy
Department of Public Service
112 State Street, Drawer 20
Montpelier, VT 05620-2601
E-mail: sarah.hofmann@state.vt.us

Mitzi A. Young, Esq.
Mary C. Baty, Esq.
Office of the General Counsel
Mail Stop O-15 D21
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001
E-mail: may@nrc.gov; mcb1@nrc.gov

Callie B. Newton, Chair
Gail MacArthur
Lucy Gratwick
Marcia Hamilton
Town of Marlboro Selectboard
P.O. Box 518
Marlboro, VT 05344

E-mail: cbnewton@sover.net; marcialynn@evl.net

Marcia Carpentier, Esq.
Atomic Safety and Licensing Board Panel
Mail Stop T-3 F23
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001
E-mail mx7@nrc.gov

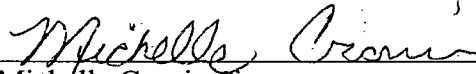
Anthony Z. Roisman, Esq.
National Legal Scholars Law Firm
84 East Thetford Road
Lyme, NH 03768
E-mail: aroisman@nationallegalscholars.com

Dan MacArthur, Director
Town of Marlboro
Emergency Management
P.O. Box 30
Marlboro, VT 05344
E-mail: dmacarthur@igc.org

David R. Lewis, Esq.
Matias F. Travieso-Diaz
Pillsbury Winthrop Shaw Pittman LLP
2300 N Street NW
Washington, DC 20037-1128
E-mail: david.lewis@pillsburylaw.com
matias.travieso-diaz@pillsburylaw.com

SHEMS DUNKIEL KASSEL & SAUNDERS, PLLC

by:


Michelle Cronin, for
Ronald A. Shems, Esq. and
Karen Tyler, Esq.
91 College Street
Burlington, VT 05401
802 860 1003
802 860 1208 (fax)
rshems@sdkslaw.com
kt Tyler@sdkslaw.com

for the firm
Attorneys for New England Coalition, Inc.

SHEMS DUNKIEL KASSEL & SAUNDERS PLLC

RONALD A. SHEMS

BRIAN S. DUNKIEL*

JOHN B. KASSEL

MARK A. SAUNDERS

ANDREW N. RAUBVOGEL

GEOFFREY H. HAND
KAREN L. TYLER
REBECCA E. BOUCHER
ASSOCIATE ATTORNEYS

EILEEN I. ELLIOTT
OF COUNSEL

May 9, 2007

Office of the Secretary
Attn: Rulemaking and Adjudications Staff
Mail Stop O-16C1
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

Re: In the Matter of Energy 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

Dear Sir or Madam:

Please find enclosed for filing in the above-stated matter New England Coalition,
Inc.'s Opposition to Entergy's Motion for Summary Disposition of New England
Coalition's Contention 3 (Steam Dryer).

Thank you for your attention to this matter.

Sincerely,



Karen Tyler
SHEMS DUNKIEL KASSEL & SAUNDERS PLLC

Cc: attached service list
Enclosures