

July 3, 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 ANSWER TO "NEW ENGLAND COALITION'S
REQUEST FOR LEAVE TO FILE A SUPPLEMENT TO
[NEC'S] REQUEST FOR LEAVE TO FILE A NEW CONTENTION"

INTRODUCTION

Pursuant to 10 C.F.R. § 2.323(c), the NRC Staff ("Staff") hereby responds to the New England Coalition's ("NEC") "Request for Leave to File a Supplement to [NEC's] Request for Leave to File a New Contention," filed on June 23, 2006 ("Supplemental Request"). In its Supplemental Request, NEC requests leave to supplement its "Request for Leave to File a New Contention" ("Request"), dated April 20, 2006. For the reasons discussed below, the Staff opposes NEC's Supplemental Request and recommends that it be denied.

BACKGROUND

NEC's proposed new contention, filed on April 20, 2006, challenged the adequacy of analyses concerning the steam dryer at Vermont Yankee, based on the discovery of cracks in the steam dryer at Quad Cities Unit 2 ("Quad Cities").¹ On May 25, 2006, responses to NEC's

¹ NEC's proposed new contention asserted as follows:

The failure of modeling, testing, and analysis, in support of extended power uprate (EPU), to detect or predict recent discovery of a 5 foot crack with multiple branches on the surface of the Quad Cities Unit 2 dryer indicates that the technical basis for ascension power testing at the Entergy Vermont Yankee Nuclear Power Station, largely based on the Quad Cities model and methodology, is flawed and cannot reliably

(continued...)

Request were filed by the Staff and by Entergy Nuclear Vermont Yankee, LLC and Entergy Nuclear Operations, Inc. (collectively, “Entergy” or “Applicant”);² NEC replied to the Applicant’s and Staff’s responses on June 1, 2006.³ In its Supplemental Request, NEC seeks to supplement the bases for its proposed new contention, based upon the written testimony of Vermont State Nuclear Engineer William Sherman filed in a proceeding before the Vermont Public Service Board on June 21, 2006 (“Sherman Testimony”), and the related declaration of Dr. Joram Hopenfeld (“Hopenfeld Declaration”), dated June 23, 2006, in which Dr. Hopenfeld provides his assessment of Mr. Sherman’s testimony. For the reasons set forth below, the Staff submits that NEC’s Supplemental Request is untimely and fails to provide an admissible basis for NEC’s proposed new contention.

DISCUSSION

I. NEC’s Supplemental Request Does Not Comply With 10 C.F.R. § 2.323.

NEC’s Supplemental Request seeks leave of the Licensing Board to supplement its proposed new contention, based on the testimony and declaration attached thereto. NEC,

¹(...continued)

predict steam dryer durability or performance under EPU conditions. Because a cracked or fractured steam dryer can result in an accident, prevent mitigation of an accident, or increase the consequences of an accident, with a major catastrophic effects on public health and safety, and because Vermont Yankee is proceeding in an unknown condition, the Atomic Safety and Licensing Board, (ASLB) must not permit Vermont Yankee to operate at the EPU conditions until such time as it can be definitively demonstrated that the ascension power testing program at Vermont Yankee has not been invalidated by the experience at Quad Cities.

“New England Coalition’s Request for Leave to File a New Contention,” dated April 20, 2006 (“Request”), at 2-3.

² See (1) “NRC Staff’s Answer to [NEC’s] Request for Leave to File a New Contention,” dated May 25, 2006 (“Staff Answer”); and (2) “Entergy’s Response to [NEC’s] Request for Leave to File a New Contention,” dated May 25, 2006.

³ See “New England Coalition’s Reply to NRC Staff and Entergy Answers to [NEC’s] Request for Leave to File a New Contention,” dated May 25, 2006 [sic] and filed June 1, 2006.

however, fails to address the Commission's regulations governing the filing of motions, set forth in 10 C.F.R. § 2.323. Further, NEC does not address the provisions in § 2.323(b), which require a moving party to certify that it has made a sincere effort to contact other parties and resolve the issues raised in the motion. As indicated in the regulation, a motion that fails to include this certification "must be rejected." 10 C.F.R. § 2.323(b).⁴ Accordingly, to the extent that NEC's Supplemental Request constitutes a motion under § 2.323, it must be rejected.⁵

II. NEC's Supplemental Request Fails to Satisfy the Commission's Requirements Governing the Admissibility of Late-Filed Contentions.

As the Commission has recently stated, "[n]ew bases for a contention cannot be introduced in a reply brief, or any other time after the date the original contentions are due, unless the petitioner meets the late-filing criteria set forth in 10 C.F.R. §§ 2.309(c), (f)(2)." *Nuclear Management Co., LLC* (Palisades Nuclear Plant), CLI-06-17, 63 NRC ___, slip op. at 6 (June 23, 2006); accord, *Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-04-25, 60 NRC 223, 224-25, *reconsideration denied*, CLI-04-35, 60 NRC 619 (2004). As the Commission has explained, were this not the case, "[t]here simply would be 'no end to NRC licensing proceedings if petitioners could disregard [the Commission's] timeliness requirements' and add new bases or new issues that 'simply did not occur to [them] at the outset.'" *LES*, 60 NRC at 225, *quoting Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-03-17, 58 NRC 419, 428-29 (2003).

⁴ NEC's *pro se* representative is well aware of this provision, having raised this issue in opposing a motion for summary disposition filed by Entergy earlier in this proceeding. See "New England Coalition's Answer to Entergy's Motion for Summary Disposition of [NEC] Contention 3," dated December 23, 2005, at 6-7.

⁵ To the extent that NEC's Supplemental Request may be viewed as an amendment to its proposed contention, it is required to comply with 10 C.F.R. § 2.309(f)(2), which states that "contentions may be amended or new contentions filed after the initial filing only with leave of the presiding officer," upon a showing that the petitioner or intervenor satisfies three factors establishing the timeliness and materiality of the new filing. See discussion *infra* at 3-4.

Thus, in order to supplement the basis of its new contention, NEC must meet the Commission's standards for late-filed contentions in 10 C.F.R. § 2.309(f)(2). As the Licensing Board has previously ruled, this provision requires a showing that:

- (i) the information upon which the amended or new contention is based was not previously available;
- (ii) the information upon which the amended or new contention is based is materially different than information previously available; and
- (iii) the amended or new contention has been submitted in a timely fashion based on the availability of the subsequent information.

See *Entergy Nuclear Vermont Yankee, L.L.C.* (Vermont Yankee Nuclear Power Station), LBP-06-14, 63 NRC ___, slip op. at 4 (May 25, 2006) (emphasis in original).

It is NEC's burden to demonstrate that its supplement meets these standards. In this regard, NEC claims that it meets these requirements, yet it states only that the information it seeks to add is new because it only became available two days before NEC's filing. See Supplemental Request at 3. To be sure, the written testimony filed by Vermont State Nuclear Engineer Sherman is "new". However, the Commission's regulations do not allow for new or supplemented contentions to be admitted solely upon the appearance of new documents. Instead, new or supplemented contentions must be based on new information that is materially different from information that was previously available. 10 C.F.R. § 2.309(f)(2)(i), (ii). In other words, the Commission's regulations recognize a distinction between documents that are new and documents that contain new information. NEC does not indicate that any information contained in the Sherman testimony is new or materially different than information that was previously available; instead, it simply asserts that the Sherman testimony became available very recently. This is an insufficient showing under 10 C.F.R. § 2.309(f)(2). Regardless of whether the Sherman testimony was submitted by NEC in a timely fashion pursuant to section

2.309(f)(2)(iii), NEC's failure to even address what information within the testimony is new or materially different from that which had previously been available demonstrates that its Supplemental Request should be denied as failing to establish that any information contained in that testimony is materially different from other information that was available to it previously.

Moreover, it is apparent that much, if not all, of the information contained within the Sherman testimony is neither new nor materially different from information that was previously available. For example, Mr. Sherman questions Entergy's steam dryer analysis, on the grounds that "the NRC determined that excitation sources were not adequately identified, a technically justifiable load definition was not provided, the analysis methodology was not justified as realistic, potential non-conservative assumptions were used and extrapolation of pressure peaks were not validated." Sherman Testimony at 8-9. However, this language was taken, almost verbatim, from the Staff's Final Safety Evaluation for the Vermont Yankee EPU application, issued on March 2, 2006.⁶ See Final SE at 41-42. Thus, this information could have been included in NEC's initial filing of its steam dryer contention, in April 2006, if not sooner.⁷

Similarly, Mr. Sherman's written testimony asserts that "the NRC Staff found significant uncertainties associated with the CFD [computational fluid dynamics] predictions," because "sensitivity studies were not performed and comparison to other plant data was not sufficient,"

⁶ "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," issued March 2, 2006 ("hereinafter referred to as "Final SE") (ADAMS Accession No. ML060050028) (non-proprietary version).

⁷ NEC also fails to establish that the information cited in Mr. Sherman's testimony supports the admission of its proposed new contention. Thus, Mr. Sherman's testimony concerning this portion of the Final SE recited the conclusions in an NRC Staff audit report issued in September 2004, as summarized in the Staff's Final SE – but it failed to disclose that in the following paragraph of the Final SE, the Staff indicated that Entergy had subsequently submitted a revised analysis of the steam dryer's integrity under EPU conditions, Final SE at 42 – and that the Staff found the revised steam dryer analysis to be acceptable, subject to certain license conditions. *Id.* at 43-51.

and because “CFD uncertainty was underestimated.” Sherman Testimony at 9. This language, which pertains to Entergy’s revised analysis, again comes directly from the Staff’s Final SE. See Final SE, at 43. Once again, this is information that was available to NEC when it filed its initial steam dryer contention in April 2006, and it is thus neither new nor materially different from the information available to NEC previously.⁸

Similarly, other information cited in Mr. Sherman’s written testimony was available to NEC previously. For example, Mr. Sherman questioned the acoustic circuit model (“ACM”) validation by scale model testing, and stated that “[f]or ACM validation from the Quad Cities Unit 2 instrumented steam dryer, NRC Staff concluded an assumption of even 100% uncertainty was an underprediction.” Sherman Testimony at 9. Again, Mr. Sherman drew this language from the Staff’s Final SE. See Final SE at 44. Thus, this information was previously available to NEC at the time it filed its proposed steam dryer contention in April 2006, and the information therefore was not timely filed in NEC’s Supplemental Request.⁹

In his written testimony, Mr. Sherman also summarized the results of Vermont Yankee’s power ascension testing. Sherman Testimony at 12-16. While NEC cites Mr. Sherman’s opinion of that testing, Supplemental Request at 2, it fails to indicate that any of the information discussed by Mr. Sherman is new or materially different from information that was previously

⁸ Again, Mr. Sherman (and NEC) failed to note that the Staff addressed these concerns by adding a license condition that “provides requirements for monitoring, evaluating, and taking prompt action in response to potential adverse flow effects as a result of operation at EPU conditions.” Final SE at 43. Thus, NEC fails to establish that the information cited in Mr. Sherman’s testimony supports the admission of its proposed new contention.

⁹ Again, Mr. Sherman failed to note that the Staff addressed these issues by “focus[ing] on the licensee’s use of the pressure sensor data obtained from the Quad Cities Unit 2 instrumented steam dryer,” and by imposing a license condition that “provides requirements for monitoring, evaluating and taking prompt action in response to potential adverse flow effects as a result of operation at EPU conditions.” Final SE at 44. Similarly, Mr. Sherman states that “the only basis for NRC acceptance of the steam dryers in power uprate conditions was the added instrumentation and the power ascension tests.” Sherman Testimony at 10. This statement is directly refuted by the Final SE, which described other information (not addressed by Mr. Sherman) as being “an important part of the licensee’s effort to provide confidence that the structural integrity of the steam dryer will be maintained during EPU operation.” Final SE at 49.

available to it, as required by 10 C.F.R. § 2.309(f)(2).¹⁰ Accordingly, NEC has failed to establish the timeliness of this information in support of its request for leave to supplement its proposed new contention.

Further, as the Licensing Board has previously observed, under the Commission's regulations an untimely contention may be admitted only upon the presiding officer's determination that it should be admitted after balancing the following eight factors, all of which must be addressed in the petitioner's filing:

- (i) Good cause, if any, for the failure to file on time;
- (ii) The nature of the requestor's/petitioner's right under the Act to be made a party to the proceeding;
- (iii) The nature and extent of the requestor's/petitioner's property, financial or other interest in the proceeding;
- (iv) The possible effect of any order that may be entered in the proceeding on the requestor's/petitioner's interest;
- (v) The availability of other means whereby the requestor's/petitioner's interest will be protected;
- (vi) The extent to which the requestor's/petitioner's interests will be represented by existing parties;
- (vii) The extent to which the requestor's/petitioner's participation will broaden the issues or delay the proceeding; and
- (viii) The extent to which the requestor's/petitioner's participation may reasonably be expected to assist in developing a sound record.

¹⁰ Information concerning power ascension testing was previously available to NEC, as indicated in its Supplemental Request. For example, NEC cited "NRC Staff's Technical Basis For Continued Power Ascension Of Vermont Yankee Nuclear Power Station Up To 110% Original Licensed Power," dated April 5, 2006 (ADAMS Accession No. ML060970111), and "Vermont Yankee-Revision 1 to Steam Dryer Monitoring Plan," dated March 26, 2006 (ADAMS Accession No. ML060930689). Request at 3. Power ascension testing information was also publicly available in other documents, such as the "NRC Staff's Technical Basis For Continued Power Ascension Of Vermont Yankee Nuclear Power Station Up To 115% Original Licensed Power," dated April 28, 2006 (ADAMS Accession No. ML061370708).

10 C.F.R. § 2.309(c)(1); *Entergy Nuclear Vermont Yankee, L.L.C.* (Vermont Yankee Nuclear Power Station), LBP-06-14, 63 NRC ____, slip op. at 7 (May 25, 2006).

Of these eight criteria, NEC addresses only the first, in a footnote equating “good cause” with “new information.” Supplemental Request at 3 n.1. However, as discussed above, NEC failed to demonstrate the information contained in Mr. Sherman’s testimony was new or that it was materially different from information that had previously been available. Therefore, its cursory discussion of the good cause requirement is insufficient to demonstrate that its untimely Supplemental Request fulfills the criteria of 10 C.F.R. § 2.309(c).

III. NEC’s Supplemental Request Fails to Satisfy the Commission’s Standards Governing the Admissibility of Contentions.

In addition to fulfilling the requirements of 10 C.F.R. §§ 2.309(c) and (f)(2), a petitioner must show that a contention, late-filed contention, or any proposed amendment thereof meets the admissibility requirements for contentions set forth in 10 C.F.R. § 2.309(f)(1)(i)-(vi). As set forth therein, a petitioner seeking to have a contention admitted must:

- (i) Provide a specific statement of the issue of law or fact to be raised or controverted;
- (ii) Provide a brief explanation of the basis for the contention;
- (iii) Demonstrate that the issue raised in the contention is within the scope of the proceeding;
- (iv) Demonstrate that the issue raised in the contention is material to the findings the NRC must make to support the action that is involved in the proceeding;
- (v) Provide a concise statement of the alleged facts or expert opinions which support the requestor’s/petitioner’s position on the issue and on which the petitioner intends to rely at hearing . . . ; and
- (vi) Provide sufficient information to show that a genuine dispute exists with the applicant/licensee on a material issue of law or fact. This information must include references to specific portions of the application (including

the applicant's environmental report and safety report) that the petitioner disputes . . . , or, if the petitioner believes that the application fails to contain information on a relevant matter as required by law, the identification of each failure and the supporting reason for the petitioner's belief.

10 C.F.R. § 2.309(fc)(1)(I)-(viii). These requirements must be met by all contentions, whether filed at the onset of a proceeding or at any time thereafter. *Vermont Yankee*, LBP-06-17, slip op. at 8; *Id.*, LBP-04-28, 60 NRC 548, 554-58 (2004). NEC's Supplemental Request fails even to discuss these requirements, and it therefore must be rejected.

NEC's proposed new contention, as filed in April 2006, asserts, in essence, that Entergy's steam dryer analyses associated with the extended power uprate are flawed, and that this may lead to a cracked steam dryer, which could, in turn, result in an accident with significant adverse effects on public health and safety. See Request at 2-3. NEC's Supplemental Request seeks to supplement the bases for this contention by adding the written testimony of William Sherman to support its admission. However, instead of providing expert opinion in support of the assertions made in its proposed contention, the Sherman testimony actually contradicts the proposed contention. Thus, while Mr. Sherman questions the adequacy of Entergy's steam dryer analysis insofar as it may impact steam dryer reliability, he clearly states his opinion that "catastrophic failure of the steam dryer is unlikely." Sherman Testimony at 16. Further, Mr. Sherman indicates that the Staff has concluded that the steam dryer does not present a safety issue for Vermont Yankee – a conclusion which he does not challenge – and that the only issue his testimony addresses is the potential need for a derating of power until any cracks which materialize can be evaluated and repaired. *Id.* at 18.¹¹ Thus, the

¹¹ The gist of Mr. Sherman's testimony is contained in his assertion that "Entergy has not conclusively demonstrated that steam dryer cracks resulting in power derates will not occur." Sherman Testimony at 16. The economic cost of a power derate, which is the central issue addressed by Mr. Sherman's written testimony, is irrelevant in this proceeding.

Sherman testimony, upon which NEC and Dr. Hopenfeld rely, wholly fails to support NEC's position on the steam dryer safety issue raised in its contention.

NEC attempts to bypass this inconsistency by providing Dr. Hopenfeld's Declaration, in which Dr. Hopenfeld states that he is "in general agreement with Mr. Sherman's observations," except with respect to Mr. Sherman's conclusion "that the steam dryer is not likely to fail catastrophically." Hopenfeld Declaration at 2. However, Dr. Hopenfeld provides no basis to support his conclusory statement that he disagrees with Mr. Sherman's views. Accordingly, NEC has failed to meet its obligation to provide a concise statement of the expert opinions that support its position or to demonstrate the existence of a genuine dispute of material fact with the Applicant. See 10 C.F.R. § 2.309(f)(1)(v)-(vi).

It is well established that an intervenor seeking leave to file a late contention has the burden of presenting "a minimal showing that material facts are in dispute, thereby demonstrating that an 'inquiry in depth' is appropriate." *Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-96-7, 43 NRC 235, 249 (1996); *Georgia Institute of Technology* (Georgia Tech Research Reactor), CLI-95-12, 42 NRC 111, 118 (1995); *Gulf States Utilities Co.* (River Bend Station, Unit 1), CLI-94-10, 40 NRC 43, 51 (1994); *accord, Nuclear Management Co., LLC* (Palisades Nuclear Plant), LBP-06-10, 63 NRC ___, 2006 NRC LEXIS 56 (March 7, 2006).

As indicated above, NEC's proposed new contention, as filed on April 20, 2006, asserted, in essence, that the failure of modeling, testing, and analysis to detect or predict the cracking of the Quad Cities steam dryer calls into question the technical basis for ascension power testing at Vermont Yankee, which is largely based on the Quad Cities model and methodology. As the Staff stated in its May 25, 2006 response to NEC's proposed new contention, NEC failed to demonstrate a genuine dispute of material fact regarding the ACM modeling and methodology, and it failed to identify any dispute with the analysis described in

the Region III staff's preliminary notification cited in its contention. See Staff Answer at 14. NEC's proposed supplementation of its contention with the Sherman testimony is insufficient to remedy these failures, because it fails to demonstrate a genuine dispute with the Applicant concerning these matters. Rather, the Sherman testimony upon which NEC relies is based upon economic concerns related to a possible derating of the facility, and does not challenge the safety of the steam dryer. NEC does not address how this testimony is relevant to its contention, and it offers no additional information which would support the contention's admission.

CONCLUSION

As discussed above, NEC's Supplemental Request is untimely, fails to adequately address the Commission's criteria for the admission of late-filed contentions, and fails to demonstrate the existence of a genuine dispute of material fact. For these and other reasons set forth above, the Staff respectfully submits that NEC's Supplemental Request should be denied.

Respectfully submitted,

/RA/

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Counsel for NRC Staff

Dated at Rockville, Maryland
this 3rd day of July, 2006

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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LLC and ENTERGY NUCLEAR)	
OPERATIONS, INC.)	ASLBP No. 04-832-02-OLA
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CERTIFICATE OF SERVICE

I hereby certify that copies of "NRC STAFF'S ANSWER TO 'NEW ENGLAND COALITION'S REQUEST FOR LEAVE TO FILE A SUPPLEMENT TO [NEC'S] REQUEST FOR LEAVE TO FILE A NEW CONTENTION,'" 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 3rd day of July, 2006.

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