

**RAS 13988**

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION  
ATOMIC SAFETY AND LICENSING BOARD

**DOCKETED 08/10/07**

**SERVED 08/10/07**

Before Administrative Judges:

Alex S. Karlin, Chairman  
Dr. Richard E. Wardwell  
Dr. Thomas S. Elleman

In the Matter of

ENTERGY NUCLEAR VERMONT YANKEE,  
L.L.C.,  
and  
ENTERGY NUCLEAR OPERATIONS, INC.

(Vermont Yankee Nuclear Power Station)

Docket No. 50-271-LR

ASLBP No. 06-849-03-LR

August 10, 2007

MEMORANDUM AND ORDER

(Ruling on Motion for Summary Disposition of NEC Contention 4)

This proceeding concerns the January 25, 2006, application of Entergy Nuclear Vermont Yankee, L.L.C., and Entergy Nuclear Operations, Inc. (collectively, Entergy) to renew the operating license for the Vermont Yankee Nuclear Power Station (VYNPS) in Windham County, Vermont (Operating License No. DPR-28). Entergy seeks to extend this license for an additional twenty years beyond the current expiration date of March 21, 2012. On March 27, 2006, the Commission published a notice of acceptance for docketing of the Entergy renewal application and a notice of opportunity to request a hearing on the application. 71 Fed. Reg. 15,220 (Mar. 27, 2006). Requests for hearings and petitions to intervene were filed on or before May 26, 2006, by four entities: the Vermont Department of Public Service (DPS), the Attorney General of the Commonwealth of Massachusetts, the Town of Marlboro, Vermont, and the New England Coalition (NEC). On June 14, 2006, this Atomic Safety and Licensing Board was established to conduct this adjudication. 71 Fed. Reg. 34,397 (June 14, 2006).

On September 22, 2006, the Board granted the hearing requests of DPS and NEC and

admitted one DPS contention and three NEC contentions. LBP-06-20, 64 NRC 131 (2006).

One of the admitted contentions, denominated “NEC Contention 4,” reads as follows:

NEC Contention 4: Entergy’s License Renewal Application does not include an adequate plan to monitor and manage aging of plant piping due to flow-accelerated corrosion [FAC] during the period of extended operation.

Id. at 192-96.

Before the Board is a motion by Entergy for summary disposition of NEC Contention 4.

The Board hereby denies this motion on the ground that Entergy has failed to show that there is no genuine issue of material fact – the absolute prerequisite to any summary disposition.

Instead, this contention presents us with a “classic battle of the experts” that requires the Board to weigh opposing expert testimony and thus requires denial of the motion.

## I. BACKGROUND

### A. Procedural Posture

On June 5, 2007, Entergy filed a motion for summary disposition of NEC Contention 4.<sup>1</sup>

The NRC Staff filed an answer supporting Entergy’s motion on June 25, 2007.<sup>2</sup> NEC filed its answer, opposing the motion, on July 16, 2007.<sup>3</sup>

The arguments presented regarding the instant motion make reference to an extended

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<sup>1</sup> Entergy’s Motion for Summary Disposition of [NEC’s] Contention 4 (Flow Accelerated Corrosion) (June 5, 2007) [Entergy Motion]. See also Entergy Nuclear Vermont Yankee, L.L.C., and Entergy Nuclear Operations, Inc. (Vermont Yankee Nuclear Power Station) LBP-06-20, 64 NRC 131, 192-96 (2006) (admitting NEC Contention 4).

<sup>2</sup> NRC Staff Answer in Support of Entergy’s Motion for Summary Disposition of NEC Contention 3 (Flow Accelerated Corrosion) (June 25, 2007) [Staff Answer].

<sup>3</sup> New England Coalition, Inc.’s (NEC’s) Opposition to Entergy’s Motion for Summary Disposition of NEC’s Contention 4 (Flow-Accelerated Corrosion) (July 16, 2007) [NEC Answer]. (According to the provisions of 10 C.F.R. § 2.1205(b), answers to a motion for summary disposition would ordinarily be due twenty days after the motion is filed, in this case on June 25, 2007. However, on June 21, 2007, the Board granted an NEC motion to extend this deadline to July 16, 2007. Licensing Board Order (Granting NEC Motion for Extension of Time) (June 21, 2007) at 2 (unpublished).)

power uprate (EPU) at VYNPS, certain elements of which were the subject of a prior adjudication before a different licensing board.<sup>4</sup> The EPU amendment to the plant's license authorized a 20-percent increase in the maximum power level of the VYNPS, increasing output from 1,593 megawatts thermal (MWt) to 1,912 MWt, as well as certain associated changes to its technical specifications. See id. at 155. Arguments presented by the parties here address the extent to which the EPU-related changes may affect aging due to flow accelerated corrosion (FAC) during the license renewal period.

Entergy asserts that summary disposition is appropriate for this contention because "no genuine issue as to any material fact exists and Entergy is entitled to a decision as a matter of law" under 10 C.F.R. § 2.710(d)(2). Entergy Motion at 1. In making this claim, Entergy further asserts that

[t]he scope of NEC Contention 4, as proffered by NEC and as admitted by the Board, is very narrow and is limited to [the] assertion that the FAC program at [Vermont Yankee] is defective because it relies on the use of CHECWORKS and that code needs to be "benchmarked" against ten to fifteen years of [Vermont Yankee] inspection data.

Id. at 2-3. According to Entergy, the computer code in question does not require such benchmarking, and there are therefore no material issues related to this contention in dispute. Id. at 3. The code in question relies on laboratory data and FAC data from many plants, Entergy says, and can therefore be used effectively even when plant parameters change significantly as in the case of EPUs. Id. at 8-9. Furthermore, Entergy says, inspection data from three scheduled refueling outages under EPU conditions will be used to improve the CHECWORKS database before the license renewal term begins in 2012. Id. at 9. Entergy submits the sworn declaration of its two experts, Jeffrey S. Horowitz and James C. Fitzpatrick,

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<sup>4</sup> See Entergy Nuclear Vermont Yankee, L.L.C., and Entergy Nuclear Operations, Inc., (Vermont Yankee Nuclear Power Station), LBP-07-02, 65 NRC 153 (2007).

in support of its motion.<sup>5</sup>

The NRC Staff agrees with Entergy, noting that the Staff has considered issues raised in NEC Contention 4 in the draft Safety Evaluation Report prepared as part of this license renewal. Staff Answer at 7. According to the Staff, this evaluation considered the sort of changes in operating conditions that commonly occur in EPU's and concluded that CHECWORKS can be used effectively under such conditions without additional benchmarking. Id.

NEC disagrees, stating that the declarations of Entergy's witnesses constitute professional opinion and that NEC's two expert witnesses disagree "on substantial and technically credible grounds" with Entergy's position in this matter. NEC Answer at 3. For example, NEC states that its experts do not agree with Entergy's with respect to the following two issues:

- 1) Whether data collected under the current VYNPS FAC program during three post-EPU refueling outages scheduled prior to the expiration of the current VYNPS license will be sufficient to benchmark CHECWORKS to VYNPS post-EPU conditions; and
- 2) Whether the current VYNPS FAC program appropriately implements industry guidance, and will constitute an adequate aging management plan with respect to FAC.

Id. NEC submits the sworn declarations of its two expert witnesses in support of its answer.<sup>6</sup>

#### B. Legal Standard for Summary Disposition

The legal standard for summary disposition is set out in a decision in the Vermont

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<sup>5</sup> Joint Declaration of Jeffrey S. Horowitz and James C. Fitzpatrick in Support of Entergy's Motion for Summary Disposition of NEC Contention 4 (May 31, 2007) [Horowitz/Fitzpatrick Declaration].

<sup>6</sup> NEC Answer, Exh. 1, Fifth Declaration of Dr. Joram Hopenfeld (July 16, 2007) [Hopenfeld Declaration]; NEC Answer, Exh. 2, Declaration of Ulrich Witte (July 16, 2007) [Witte Declaration].

Yankee EPU case as follows.<sup>7</sup> In Subpart L proceedings, licensing boards must apply the summary disposition standard set forth in Subpart G. 10 C.F.R. § 2.1205(c). Under the Subpart G standard, summary disposition is proper only “if the filings in the proceeding, depositions, answers to interrogatories, and admissions on file, together with the statements of the parties and the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to a decision as a matter of law.” 10 C.F.R. § 2.710(d)(2). Summary disposition “is not a tool for trying to convince a Licensing Board to decide, on written submissions, genuine issues of material fact that warrant resolution at a hearing.”<sup>8</sup>

The moving party bears the burden of demonstrating that there is no genuine issue as to any material fact.<sup>9</sup> Summary disposition may be granted only if the truth is clear. Poller v. Columbia Broad. Sys., Inc., 368 U.S. 464, 467 (1962). Any doubt as to the existence of a genuine issue of material fact is resolved against the moving party. Advanced Medical Systems, CLI-93-22, 38 NRC at 102. Because the burden is on the moving party, the Board must examine the record in the light most favorable to the non-moving party and give the non-moving party the benefit of all favorable inferences that can be drawn from the evidence. Id.

In general, the Commission applies the same standard that the federal courts apply when ruling on motions for summary judgment under Rule 56 of the Federal Rules of Civil Procedure.<sup>10</sup> Under this standard summary disposition must be denied when the filings fail to

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<sup>7</sup> Entergy Nuclear Vermont Yankee, L.L.C., and Entergy Nuclear Operations, Inc., (Vermont Yankee Nuclear Power Station), LBP-06-05, 63 NRC 116, 121-122 (2006).

<sup>8</sup> Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), LBP-01-39, 54 NRC 497, 509 (2001) (emphasis removed).

<sup>9</sup> 10 C.F.R. § 2.325; Advanced Medical Systems, Inc. (One Factory Row, Geneva, Ohio 44041), CLI-93-22, 38 NRC 98, 102 (1993).

<sup>10</sup> Advanced Medical Systems, CLI-93-22, 38 NRC at 102. Advanced Medical Systems construes the prior version of the summary disposition regulation, 10 C.F.R. § 2.749 (2004).

demonstrate the absence of a genuine material fact, when the evidence introduced does not show that the non-moving party's position is a sham, when the matters presented fail to foreclose the possibility of a factual dispute, or when there is an issue as to the credibility of the moving party's evidentiary material. 10A Charles Alan Wright et al., Federal Practice & Procedure § 2727 (3d ed. 1998). If the moving party has satisfied its initial burden, the party opposing the motion may not rest upon "mere allegations or denials," but must submit rebutting evidence setting forth "specific facts showing that there is a genuine issue of fact" to be tried. FRCP 56(e); 10 C.F.R. § 2.710(b); Advanced Medical Systems, CLI-93-22, 38 NRC at 102.

In addition to these generally applicable principles, it must be noted that when conflicting expert opinions are involved, summary disposition is rarely appropriate. See, e.g., Phillips v. Cohen, 400 F.3d 388, 399 (6th Cir. 2005) ("competing expert opinions present the 'classic battle of the experts' and it [is] up to [the finder of fact] to evaluate what weight and credibility each expert opinion deserves"). "[D]ifferences among experts may occur at different factual levels: either about disputed baseline observations, or about the ultimate facts or inferences to be drawn even where baseline facts may be uncontested." PFS, LBP-01-39, 54 NRC at 509. Regardless of the level of the dispute, at the summary disposition stage, it is not proper for a Board "to untangle the expert affidavits and decide 'which experts are more correct.'" Id. at 510 (citation omitted). Factual disputes of this nature are to be resolved at an evidentiary hearing, where the Board has the opportunity to examine witnesses, probe the documents, and weigh the evidence.

## II. RULING

The Board finds Entergy has failed to demonstrate the absence of a "genuine issue of material fact" and that the pleadings instead reveal a "battle of the experts" of precisely the type

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The current regulations, 10 C.F.R. §§ 2.1205 and 2.710, are substantially similar.

that requires denial of the motion for summary disposition and resolution at an evidentiary hearing. Entergy's experts declare that Entergy's position is correct on the merits and that there is nothing deficient about its FAC aging management program. The NRC Staff votes with Entergy, endorsing Entergy's position on the merits. But neither of them demonstrates the essential prerequisite for granting a summary disposition, i.e., the absence of a genuine issue as to material expert opinions. To the contrary, NEC's experts have presented a direct challenge to Entergy's experts regarding the use of CHECWORKS under EPU conditions and the sufficiency of the data to be collected prior to the license renewal term. The pleadings on their face demonstrate that sharp differences of expert opinion continue to exist in this matter, and we do not see that Entergy has met its burden of demonstrating that no factual disputes exist.

We observe at least two significant differences in the competing expert opinions. The alleged need to better benchmark the model for use at EPU levels during the longer term of the requested renewal has already been mentioned. Entergy's experts assert that data from three refueling outages is sufficient, Horowitz/Fitzpatrick Declaration ¶¶ 33-40, while NEC's experts recommend collecting data over 10-15 years. Hopenfeld Declaration ¶¶ 10, 16; Witte Declaration ¶ 41. NEC's experts cite industry guidance recommending benchmarking over 5-10 years and notes that time periods at the high end of this range are appropriate in cases where plant parameters have changed significantly, as in the case of an EPU. Witte Declaration ¶ 41. Entergy has by no means demonstrated that NEC's position in this matter is a sham. Similarly, NEC takes issue with assertions by Entergy's experts that algorithms using data from other plants are sufficient to predict FAC at the VYNPS under uprate conditions. Horowitz/Fitzpatrick Declaration ¶ 38. NEC's expert notes that only six of the plants supplying data have experienced power uprates of over fifteen percent, and of these half have experienced FAC

problems. Witte Declaration ¶ 43. Entergy's attempt to demonstrate the absence of a genuine issue of material fact founders on the existence of such disagreements between the experts, and thus the motion for summary disposition must be denied.

It is so ORDERED.

FOR THE ATOMIC SAFETY  
AND LICENSING BOARD<sup>11</sup>

**/RA/**

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Alex S. Karlin, Chairman  
ADMINISTRATIVE JUDGE

**/RA by T.S. Moore for:/**

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Dr. Richard E. Wardwell  
ADMINISTRATIVE JUDGE

**/RA by T.S. Moore for:/**

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Dr. Thomas S. Elleman  
ADMINISTRATIVE JUDGE

Rockville, Maryland  
August 10, 2007

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<sup>11</sup> Copies of this order were sent this date by internet e-mail transmission to counsel for (1) licensees Entergy Nuclear Vermont Yankee, L.L.C., and Entergy Nuclear Operations, Inc.; (2) intervenors Vermont Department of Public Service and New England Coalition of Brattleboro, Vermont; (3) the Staff, and (4) the State of New Hampshire.



UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

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

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing LB MEMORANDUM AND ORDER (RULING ON MOTION FOR SUMMARY DISPOSITION OF NEC CONTENTION 4) have been served upon the following persons by U.S. mail, first class, or through NRC internal distribution.

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Docket No. 50-271-LR  
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Office of the Secretary of the Commission

Dated at Rockville, Maryland,  
this 10<sup>th</sup> day of August 2007