

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)	
)	
TENNESSEE VALLEY AUTHORITY)	
)	Docket No. 50-259, 50-260, and
)	50-296
)	
(Browns Ferry Nuclear Plant)	
Units 1, 2, and 3))	

NRC STAFF ANSWER TO BEST/MATRR
PETITION TO INTERVENE AND HEARING REQUEST

Vinh Hoang
Counsel for the NRC Staff

October 4, 2016

TABLE OF CONTENTS

	<u>Page</u>
INTRODUCTION	- 1 -
BACKGROUND	- 2 -
DISCUSSION.....	- 3 -
I. Standing to Intervene	- 3 -
A. Legal Requirements to Establish Standing.....	- 3 -
B. BEST/MATRR Plead Sufficient Facts to Establish Standing to Intervene.....	- 4 -
II. Admissibility of Petitioner’s Proposed Contentions.....	- 5 -
A. Legal Requirements For Contention Admissibility	- 5 -
B. The Petition Should be Denied For Failing to Offer an Admissible Contention	- 6 -
1. The Contentions Raise Impermissible Challenges to the Commission’s Regulations	- 6 -
2. The Contentions Impermissibly Seek to Litigate Issues Subject to an Agency Rulemaking Petition.....	- 9 -
3. The Contentions Fail to Raise a Genuine Dispute of Fact or Law with the Application.....	- 10 -
CONCLUSION.....	- 11 -

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)
)
TENNESSEE VALLEY AUTHORITY)
) Docket No. 50-259, 50-260, and
) 50-296
)
(Browns Ferry Nuclear Plant)
Units 1, 2, and 3))

NRC STAFF ANSWER TO BEST/MATRR
PETITION TO INTERVENE AND HEARING REQUEST

INTRODUCTION

Pursuant to 10 C.F.R. § 2.309(i)(1), the staff of the Nuclear Regulatory Commission (“Staff”) files its answer opposing the petition for hearing and request to intervene¹ filed by Bellefonte Efficiency & Sustainability Team/ Mothers Against Tennessee River Radiation (“BEST/MATRR”). In its three proposed contentions, BEST/MATRR generally seeks to challenge whether the Browns Ferry Nuclear Power Plant, Units 1, 2, and 3 (collectively “Browns Ferry”) can be safely operated after the proposed extended power uprate (“EPU”) license amendment request (“LAR”) because (1) the 10 C.F.R. Appendix K model under-predicts the rate of heat generation and hydrogen generation; (2) the peak cladding temperature

¹ Hearing Request and Petition to Intervene Regarding Tennessee Valley Authority’s License Amendment Request for Extended Power Uprates for Browns Ferry Nuclear Plant Units 1, 2, and 3 (Sept. 9, 2016) (Agencywide Documents Access and Management System (“ADAMS”) Accession No. ML16253A413). Attached to the Petition were several declarations concerning the Petitioner’s standing to intervene (Sept. 9, 2016) (ADAMS Accession No. ML16253A416); Mark Leyse *curriculum vitae* (Sept. 9, 2016) (ADAMS Accession No. ML16253A415); and Declaration of Mark Leyse (Sept. 9, 2016) (ADAMS Accession No. ML16253A414).

("PCT") limits of 10 C.F.R 50.46(b)(1) may be exceeded at the EPU levels; and (3) the EPUs are inherently unsafe.²

The proposed contentions separately and together impermissibly challenge the Commission's regulations and are not litigable before the Atomic Safety and Licensing Board ("Board") absent a waiver authorized by the Commission. As acknowledged by the Petitioner, the issues raised in their proposed contentions are currently the subject of an on-going rule-making petition, PRM-50-93. Long-standing Commission precedent precludes challenging an issue subject to a rulemaking petition in an individual licensing proceeding; therefore the proposed contentions are not admissible in this proceeding. In addition, BEST/MATRR's proposed contentions do not meet the Commission's regulations for admission because each fails to raise a genuine issue of material dispute with the application. For these reasons and as explained below, the proposed contentions are not admissible and BEST/MATRR's petition should be denied.

BACKGROUND

The proceeding concerns a September 21, 2015, Tennessee Valley Authority ("TVA") LAR for Browns Ferry to increase the rated thermal power of each plant from 3458 megawatts thermal ("MW_{th}") to 3952 MW_{th}.³ On July 5, 2016, a Federal Register notice was published that established September 6, 2016, as the date for filing contentions⁴. The filing deadline was extended by the Secretary of the Commission to September 13, 2016.⁵ On September 9, 2016,

² Petition at 29-30.

³ Letter from J.W. Shea, TVA, to NRC, Proposed Technical Specifications Change TS-505 - Request for License Amendments - Extended Power Uprate, Browns Ferry Nuclear Plant, Units 1, 2, and 3, NRC Docket Nos. 50-259, 50-260, and 50-296, Operating License Nos. DPR-33, DPR-52, and DPR-68 (Sept. 21, 2015) (ADAMS Accession No. ML15282A152).

⁴ Tennessee Valley Authority, Docket Nos. 50-260, and 50-296, Browns Ferry Nuclear Plant (BFN) Units 1, 2, and 3, Limestone County, Alabama, 81 Fed. Reg. 43666 (July 5, 2016).

⁵ Order of the Secretary (Granting Extension Request) in the Matter of Tennessee Valley Authority (Browns Ferry Nuclear Plants 1, 2, 3) (Sept. 6, 2016) (ADAMS Accession No. ML16250A837).

BEST/MATRR filed the instant petition. An Atomic Safety and Licensing Board was established on September 20, 2016 to preside over this proceeding.⁶

Amendment requests of EPU's involve analyses of multiple systems and components. BEST/MATRR's proposed contention concentrates on one specific issue. Central to its proposed contentions are the analyses associated with the calculation of peak cladding temperature ("PCT") and whether use of the Baker-Just correlation is appropriate. As part of the LAR, TVA submitted reports showing that Browns Ferry would continue to meet the PCT limits using calculations consistent with Appendix K requirements.⁷

DISCUSSION

I. Standing to Intervene

A. Legal Requirements to Establish Standing

The Commission's rules of practice provide:⁸ "[a]ny person whose interest may be affected by a proceeding and who desires to participate as a party must file a written request for hearing or petition for leave to intervene and a specification of the contentions which the person seeks to have litigated in the hearing." 10 C.F.R. § 2.309(a). In accordance with the regulations, the Board "will grant the request/petition if it determines that the requestor/petitioner has standing under the provisions of [10 C.F.R. § 2.309(f)]." *Id.* A request for hearing or petition for leave to intervene must state:

- (i) The name, address, and telephone number of the requestor or petitioner;

⁶ Establishment of Atomic Safety and Licensing Board; Tennessee Valley Authority, 81 Fed. Reg. 66301 (September 27, 2016).

⁷ ANP-3403NP, Revision 2, Fuel Uprate Safety Analysis Report for Browns Ferry Units 1, 2, and 3, Attachment 9, (Aug. 2015) (ADAMS Accession No. ML15282A182).

⁸ See "Rules of Practice for Domestic Licensing Proceedings and Issuance of Orders," 10 C.F.R. Part 2.

(ii) The nature of the requestor's/petitioner's right under [the Atomic Energy Act of 1954, as amended,] 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; and

(iv) The possible effect of any decision or order that may be issued in the proceeding on the requestor's/petitioner's interest.

10 C.F.R. § 2.309(d)(1).

In certain limited license amendment proceedings, standing may be based on a petitioner's proximity to the facility at issue. Accordingly, standing is established "based on this "proximity presumption" if a petitioner (or a representative of a petitioner organization) resides within approximately 50 miles of the facility in question." *Detroit Edison Co.* (Fermi Nuclear Power Plant, Unit 3), CLI-09-22, 70 NRC 932, 933 (2009) (citing *Calvert Cliffs 3 Nuclear Project, LLC, & Unistar Nuclear Operating Servs., LLC* (Combined License Application for Calvert Cliffs, Unit 3), CLI-09-20, 70 NRC 911, 917 (2009)).

B. BEST/MATRR Plead Sufficient Facts to Establish Standing to Intervene

BEST/MATRR seek representational standing in this proceeding.⁹ BEST/MATRR is a member-organized local chapter of Blue Ridge Environmental Defense League ("BREDL"), a non-profit environmental organization.¹⁰

BEST/MATRR submitted affidavits from members that provide the address of his or her residence showing that they live, own property, and/or regularly recreate within 50 miles of Browns Ferry. The Staff agrees that BEST/MATRR has established representational standing through the close proximity of its members.

⁹ Petition at 1.

¹⁰ *Id.* at 2.

II. Admissibility of Petitioner's Proposed Contentions

A. Legal Requirements For Contention Admissibility

The legal requirements governing the admissibility of contentions are well-established and set forth in 10 C.F.R. § 2.309(f). Specifically, in order to be admitted, a contention must satisfy the following requirements:

(f) Contentions. (1) A request for hearing or petition for leave to intervene must set forth with particularity the contentions sought to be raised. For each contention, the request or petition 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, together with references to the specific sources and documents on which the requestor/petitioner intends to rely to support its position on the issue; 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 petition disputes and the supporting reasons for each dispute, 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 reasons for the petitioner's belief.

(2) Contentions must be based on documents or other information available at the time the petition is to be filed, such as the application, supporting safety analysis report, environmental report or other supporting document filed by an applicant or licensee, or otherwise available to a petitioner. On issues arising

under the National Environmental Policy Act, the petitioner shall file contentions based on the applicant's environmental report . . .

10 C.F.R. § 2.309(f)(1)-(2).

The requirements governing the admissibility of contentions are "strict by design." *Entergy Nuclear Operations, Inc.* (Indian Point Nuclear Generating Station, Unit 2), CLI-16-05, 83 NRC 131, 136 (2016). In short, the contention admissibility rules require "sufficient information to show that a genuine and material dispute of law or fact" exists. *Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-15-21, 82 NRC 295, 301 (2015).

B. The Petition Should be Denied For Failing to Offer an Admissible Contention

The Petitioner has proposed three separate contentions,¹¹ but has provided only a single set of bases to support all three contentions. The proposed contentions are not truly independent challenges to the LAR and are more appropriately examined as a single proposed contention in several parts. Regardless of how the proposed contentions are analyzed, BEST/MATRR's contentions impermissibly challenge the Commission's regulations, impermissibly seeks to litigate issues that are subject to an on-going agency review of a petition for rulemaking, and fail to raise a genuine dispute of fact or law with the LAR.

1. The Contentions Raise Impermissible Challenges to the Commission's Regulations

The Commission has made clear that attacks on the Commission's regulations are not admissible absent a granted waiver request. "Section 2.335(a) of our regulations prohibits challenges to our rules and regulations in the context of adjudicatory proceedings."¹²

Tennessee Valley Authority (Watts Bar, Unit 2), CLI-15-19, 82 NRC 151, 157 (2015).

Petitioners are barred from challenging a rule "in an NRC adjudicatory proceeding absent a

¹¹ Petition at 29-30.

¹² 10 C.F.R. § 2.335(a).

showing of special circumstances”. *DTE Electric Co.* (Fermi Nuclear Power Plant, Unit 3), CLI-15-01, 81 NRC 1, 10 (2015). The regulations provide that the sole ground for a waiver petition is “special circumstances with respect to the subject matter of the particular proceeding are such that the application of the rule or regulation (or a provision of it) would not serve the purposes for which the rule or regulation was adopted.” 10 C.F.R. § 2.335(b). In addition, among other things, the special circumstances must be ‘unique’ to the facility rather than ‘common to a large class of facilities’; *Diablo Canyon*, 82 NRC at 302. For contentions challenging the viability of existing rules and regulations, the absence of waiver causes the contention to be inadmissible. *Exelon Generation Co., LLC* (Limerick Generating Station, Units 1 and 2), CLI-12-19, 76 NRC 377, 387 (2012).

BEST/MATRR’s contentions state:

Contention [1]: The EPU’s for BFN Units 1, 2, and 3 must not be granted because the EXEM BWR-2000 Evaluation Model’s LOCA calculations for “qualifying” the EPU’s for BFN Units 1, 2, and 3 are scientifically indefensible.

Contention [2]: TVA has not scientifically demonstrated that at higher power levels (3,952 MWt) that in the event of a LOCA, at any of the BFN units, the PCT would not exceed the 10 C.F.R. § 50.46(b)(1) PCT limit of 2200°F.

Contention [3]: The health and safety of BEST/MATRR’s members, as well as that of the general public, must not be threatened by scientifically indefensible EPU’s for BFN Units 1, 2, and 3.¹³

The bases provided in support of the contentions are identical and can be categorized into three general topics: (1) Appendix K of the Commission’s regulations is not conservative, (2) Westinghouse lied during the Indian Point Unit 2 original licensing proceeding on loss of coolant accident (“LOCA”) simulations, and (3) the PCT limit might be exceeded during a LOCA due to

¹³ Petition at 29-30 (internal footnotes omitted).

the non-conservatism in Appendix K and Westinghouse's testimony in the Indian Point Unit licensing proceeding.

BEST/MATRR acknowledge that their contentions are based on a challenge to Commission's regulations as set forth in 10 C.F.R. § 50.46 and Appendix K.¹⁴ The Petitioner essentially argues that the Appendix K requirements should be made stricter and more conservative because they were based on data "cherry picked" by Westinghouse.¹⁵ As such, the contentions are a direct challenge to Commission regulations.

While the proposed contentions make bare assertions that the EXEM BWR-2000 Evaluation Model's LOCA calculations are "indefensible" and that the PCT limits in the regulations would be violated at the EPU power levels, the bases for the contentions do not assert that TVA analysis failed to follow the requirements of the regulations or that results of the regulatory required analysis show that PCT will be maintained above the PCT limits in the regulation. Instead, the bases for the contentions assert that the Commission's regulations are not sufficiently conservative because Westinghouse used "cherry-picked" data to support the use of the Baker-Just correlation, recent preliminary modeling by the NRC shows that heat production and temperatures are under predicted by the current Appendix K models, and had TVA used more conservative models than those required by the Commission's regulations PCT might exceed the limit imposed by 10 C.F.R. §50.46(b)(1).¹⁶ In order to challenge the regulations in an individual licensing proceeding, the Petitioner was required to seek a waiver pursuant to 10 C.F.R. § 2.335. Absent a waiver, the contention becomes inadmissible. Without

¹⁴ "And the health and safety of BEST/MATRR members must not be compromised by the application of the non-conservative Appendix K model that has been employed"... "[H]owever, those PCTs were calculated with a non-conservative Appendix K model, which used the Baker-Just correlation. By definition, a non-conservative model does not ensure an adequate margin of safety." Petition at 35.

¹⁵ *Id.* at 20. The Petitioner also claims that recent NRC analyses in response to the petition for rulemaking ("PRM") 50-93 show that Appendix K calculations based on the Baker-Just correlation result in non-conservative results. *Id.* at 25-26.

¹⁶ *Id.* at 35.

a waiver, the appropriate way to challenge a Commission regulation is through a rulemaking, which the Petitioner and its expert acknowledge has been done.¹⁷ *Massachusetts v. United States*, 522 F.3d 121, 125 (1st Cir. 2008); *Limerick*, 76 NRC at 387.

Even assuming that the Petitioner had requested a waiver and invoked 10 C.F.R. § 2.335 in its petition, the issues raised in the petition do not meet the requirements to waive the applicability of a specified regulation in this proceeding. The concerns raised by BEST/MATRR are not unique to Browns Ferry, but, as alleged, would impact the entire fleet of licensed and operating reactors. Thus, these contentions should not be admitted in this proceeding but should be addressed through the on-going PRM.

Because each alleged contention is based on a challenge the Commission's current regulatory requirements, the contentions are not admissible and the petition should be denied.

2. The Contentions Impermissibly Seek to Litigate Issues Subject to an Agency Rulemaking Petition

The Board in individual license proceedings should not accept contentions which are the subject of rulemaking by the Commission. *Entergy Nuclear Operations, Inc.* (Indian Point, Units 2 and 3), CLI-10-19, 72 NRC 98, 100 (2010). The Petitioner acknowledge that issues raised by its contentions are the subject of a PRM-50-93 filed by its proffered expert, Mark Leyse.¹⁸ The Petitioner states that PRM-50-93 "addresses issues similar to those raised by BEST/MATRR in this Contention and in the Leyse Declaration."¹⁹ The petition identifies no differences between the contentions and the rulemaking petition.²⁰ The NRC is currently considering the PRM-50-93.²¹

¹⁷ Petition at 23-24.

¹⁸ *Id.* at 32

¹⁹ *Id.*

²⁰ Petition at 32; Petition for Rulemaking of Mark Edward Leyse (Nov. 17, 2009) (ADAMS Accession No. ML093290250).

²¹ Petition at 32.

While the Petitioner and their proffered expert may be unsatisfied by the pace of the PRM-50-93,²² their concern does not transform an inadmissible contention into issue within the scope of this license amendment proceeding.²³ Allowing a petitioner to raise challenges to an issue currently subject to a PRM would disregard “well-recognized proposition that the choice to use rulemaking rather than adjudication is a matter within the agency’s discretion.” See *NLRB v. Bell Aerospace Co.*, 416 U.S. 267, 294 (1974). Each contention is an inadmissible challenge to an issue currently under consideration by the staff in a PRM. Thus, the petition should be denied.

3. The Contentions Fail to Raise a Genuine Dispute of Fact or Law with the Application

The Petitioner asserts that if TVA was required to use methods preferred by their proffered expert, the EPU would result in Browns Ferry violating the PCT limits established in 10 C.F.R. § 50.46(b)(1).²⁴ The petition, however, does not identify any portion of the application as departing from the Commission’s requirements. The issues raised by BEST/MATRR in its contentions and the supporting bases challenge the use of Baker-Just correlation in Appendix K, the thirty-plus year old testimony of a Westinghouse expert that was subject to cross-examination, the pace of the Staff’s current review of its PRM, and a desire to impose requirements beyond those set forth in the Commission’s regulations for Browns Ferry’s EPU.²⁵

The Petitioner does not identify any portion of the application and supporting calculations as being contrary to requirements of the regulations.²⁶ BEST/MATRR bears the burden of

²² Petition at 32.

²³ 10 C.F.R. § 2.309(f)(1)(iii).

²⁴ Petition at 35.

²⁵ 10 C.F.R. § 2.309(f)(1)(vi).

²⁶ While Contention 2 asserts that PCT may be exceeded in a LOCA accident, this assertion is based on Petitioner’s challenge to the regulations as being inadequate. The calculations provide by TVA show that PCT limit would not be violated at the higher power levels contemplated in the EPU. ANP-

pointing to the portions of the application at issue and succinctly explaining how the application failed to meet the Commission's requirements. Because the Petitioner has not identified any portion of the application as departing from the Commission requirements, it has failed to raise a genuine dispute with the application. Thus, the petition should be denied.

CONCLUSION

The petition should be denied because it impermissibly challenges the Commission's regulations, impermissibly challenges issues currently subject to the agency's review in a PRM, and fails to raise a genuine material dispute as to fact or law with the application.

Respectfully submitted,

/Signed (electronically) by/

Vinh Hoang
Counsel for the NRC Staff
U.S. Nuclear Regulatory Commission
Office of the General Counsel
Mail Stop O15 D21
Washington, DC 20555
Telephone: (301) 287-9196
Email: Vinh.Hoang@nrc.gov

Dated at Rockville, Maryland
this 4th day of October, 2016

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)
)
TENNESSEE VALLEY AUTHORITY) Docket Nos. 50-259, 50-260 and
) 50-296-LA
)
(Browns Ferry Nuclear Plant -)
Units 1, 2 and 3))

CERTIFICATE OF SERVICE

Pursuant to 10 C.F.R. § 2.305 (revised), I hereby certify that copies of the foregoing "NRC STAFF ANSWER TO BEST/MATRR PETITION TO INTERVENE AND HEARING REQUEST," dated October 4, 2016, have been filed through the Electronic Information Exchange, the NRC's E-Filing System, in the above-captioned proceeding, this 4th day of October, 2016.

/Signed (electronically) by/

Vinh D. Hoang
Counsel for the NRC Staff
U.S. Nuclear Regulatory Commission
Mail Stop O-15 D21
Washington, DC 20555-0001
Telephone: (301) 287-9196
E-mail: vinh.hoang@nrc.gov
Date of Signature: October 4, 2016