

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

Before Administrative Judges:

Paul S. Ryerson, Chairman
Dr. Gary S. Arnold
Nicholas G. Trikouros

In the Matter of

TENNESSEE VALLEY AUTHORITY

(Browns Ferry Nuclear Plant Units 1, 2, and 3)

Docket Nos. 50-259, 50-260, & 50-296-LA

ASLBP No. 16-948-03-LA-BD01

November 2, 2016

ORDER

(Ruling on Petition to Intervene and Request for a Hearing)

Before the Board is a Petition by Bellefonte Efficiency & Sustainability Team/Mothers Against Tennessee River Radiation (Petitioner).¹ Petitioner seeks a hearing on a license amendment request submitted by the Tennessee Valley Authority (TVA) for an extended power uprate at Browns Ferry Nuclear Power Plant, Units 1, 2, and 3.

Because Petitioner's proffered contentions impermissibly challenge NRC regulations, we deny the request for a hearing and dismiss the Petition.

I. BACKGROUND

On September 21, 2015, TVA submitted to the NRC a license amendment request for an

¹ Bellefonte Efficiency & Sustainability Team/Mothers Against Tennessee River Radiation's 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) [hereinafter Petition]. This Board was established to preside over the proceeding on September 20, 2016. Establishment of Atomic Safety and Licensing Board, 81 Fed. Reg. 66,301 (Sept. 27, 2016).

extended power uprate.² In response to a Federal Register notice of an opportunity to request a hearing,³ Petitioner timely filed its pro se Petition.⁴ The NRC Staff and TVA oppose.⁵

To increase electricity generation at Browns Ferry, the proposed power uprate would increase the authorized maximum steady-state reactor core power level for each unit from 3,458 to 3,952 megawatts thermal.⁶ AREVA, on behalf of TVA, performed modeling to establish the safety of the extended power uprate during a loss of coolant accident.⁷ NRC regulations require that, when performing such modeling, certain variables “shall be calculated using the Baker-Just equation.”⁸ It is not disputed that TVA performed such calculations using the Baker-Just

² 81 Fed. Reg. 43,661, 43,666 (July 5, 2016).

³ Id. at 43,662.

⁴ The deadline to file a petition was extended by the Secretary of the Commission. Secretary of the Commission Order (Granting Extension Request) (Sept. 6, 2016) (unpublished).

⁵ NRC Staff Answer to BEST/MATRR Petition to Intervene and Hearing Request (Oct. 4, 2016) [hereinafter NRC Staff Answer]; Tennessee Valley Authority’s Answer Opposing Petition for Leave to Intervene and Request for Hearing (Oct. 4, 2016) [hereinafter TVA Answer]. Petitioner replied on October 14, 2016. Reply of the Bellefonte Efficiency & Sustainability Team/Mothers Against Tennessee River Radiation to Answers of the Nuclear Regulatory Commission Staff and Tennessee Valley Authority on the License Amendment Request for Extended Power Uprates for Browns Ferry Nuclear Plant Units 1, 2, and 3 (Oct. 14, 2016) [hereinafter Reply]. Pursuant to 10 C.F.R. § 2.309(i)(2), a reply must be filed within seven days of any answer. Apparently misreading our regulations, see 10 C.F.R. § 2.306(a), Petitioner filed its Reply within seven business days, rather than within seven calendar days. Absent a motion to strike, and in light of the NRC’s established practice of “treating pro se litigants more leniently than litigants with counsel,” Entergy Nuclear Vt. Yankee, LLC (Vt. Yankee Nuclear Power Station), CLI-10-17, 72 NRC 1, 45 n.246 (2010), we nevertheless consider the arguments made in Petitioner’s Reply. But see Yankee Atomic Electric Co. (Yankee Nuclear Power Station), CLI-98-21, 48 NRC 185, 201 (1998) (stating that pro se parties are “still expected to comply with our basic procedural rules—especially ones as simple to understand as those establishing filing deadlines”).

⁶ See 81 Fed. Reg. at 43,666.

⁷ ANP-3377NP, Browns Ferry Units 1, 2, and 3 LOCA Break Spectrum Analysis for ATRIUM 10XM Fuel (EPU), Rev. 3 (Aug. 31, 2015) at 1-1 (ADAMS Accession No. ML15282A184).

⁸ 10 C.F.R. pt. 50, app. K.I.A.5.

equation.

Rather, Petitioner proffers three contentions that, directly or indirectly, challenge the adequacy of the Baker-Just equation itself.⁹ First, Petitioner claims TVA's modeling in the loss of coolant accident analysis is "scientifically indefensible" because the Baker-Just calculation required by the NRC's regulations underpredicts the rate of heat generation, hydrogen generation, and zirconium fuel-cladding oxidation during a loss of coolant accident.¹⁰ Second, because it asserts the Baker-Just equation is inadequate, Petitioner argues that TVA did not "scientifically demonstrate" that the peak cladding temperature will not exceed regulatory limits¹¹ during a loss of coolant accident after the extended power uprate.¹² Third, Petitioner claims that, as a result of this deficiency, its members and the public are threatened by the proposed power uprate.¹³

Petitioner's contentions all depend on its fundamental claim that the calculations required by Section I.A.5 of Appendix K to 10 C.F.R. Part 50 (Appendix K) are "non-conservative" and "inadequate" for extended power uprate modeling.¹⁴ Although Appendix K requires the use of the Baker-Just equation to calculate the rate of energy release, hydrogen generation, and fuel cladding oxidation during a loss of coolant accident,¹⁵ Petitioner asserts that analysis using the Baker-Just equation is inadequate for the purposes for which the

⁹ Petition at 29–30.

¹⁰ See id. at 7, 29.

¹¹ 10 C.F.R. § 50.46(b)(1).

¹² See Petition at 30–31.

¹³ See id. at 30.

¹⁴ See, e.g., id. at 7.

¹⁵ 10 C.F.R. pt. 50, app. K.I.A.5.

Commission has required it.¹⁶

Petitioner provides a lengthy historical account of zirconium oxidation as relevant to Appendix K analysis and its alleged inadequacies.¹⁷ Petitioner describes the development of the Baker-Just equation, arguing that it is not applicable to loss of coolant accidents and is inadequate for use in extended power uprate modeling.¹⁸ Petitioner then summarizes and in essence attempts to relitigate a forty-five-year-old challenge to the Baker-Just equation raised during an Indian Point Unit 2 licensing proceeding, including a new allegation that a Westinghouse witness committed perjury.¹⁹ Finally, Petitioner describes a pending petition for rulemaking before the Commission (submitted by Mark Leyse, the same individual whose declaration supports its Petition)²⁰ that challenges the adequacy of the Baker-Just equation for modeling zirconium oxidation during loss of coolant accidents.²¹

Petitioner claims that the NRC knows the inadequacies of the Baker-Just equation, but has not adopted more conservative regulatory requirements.²² Petitioner contends that, as a result, inadequate and non-conservative modeling is used to justify the Browns Ferry extended power uprate.²³ Petitioner does not claim, however, that TVA failed in any way to properly perform the Baker-Just calculation required by Appendix K.

¹⁶ See Petition at 7, 28–29.

¹⁷ Id. at 7–28.

¹⁸ See id. at 7–10.

¹⁹ Id. at 10–23.

²⁰ Petition for Rulemaking by Mark Leyse, PRM-50-93 (Nov. 17, 2009) (Adams Accession No. ML093290250).

²¹ Petition at 23–28.

²² See id. at 9–28, 30–33.

²³ See id. at 28–29.

II. DISCUSSION

To obtain a hearing, a petitioner must establish standing and propose at least one admissible contention.²⁴

A. Standing

An organization may establish representational standing by showing that at least one member has standing to intervene in their own right and has authorized the organization to request a hearing on their behalf.²⁵ Petitioner submitted affidavits of ten members showing that they live or own property within 50 miles of Browns Ferry and have authorized Petitioner to represent their interests in this proceeding.²⁶ No party opposes Petitioner's claim to standing.²⁷ We conclude that Petitioner has demonstrated standing.

B. Contention Admissibility

Petitioner's contentions are inadmissible for three reasons.

First, pursuant to 10 C.F.R. § 2.335, "no rule or regulation of the Commission, or any provision thereof, concerning the licensing of production and utilization facilities . . . is subject to attack by way of discovery, proof, argument, or other means in any adjudicatory proceeding

²⁴ 10 C.F.R. § 2.309(a); see also id. § 2.309(d) (listing standing requirements); id. § 2.309(f)(1) (listing contention admissibility requirements).

²⁵ Ga. Inst. of Tech. (Ga. Tech. Research Reactor), CLI-95-12, 42 NRC 111, 115 (1995).

²⁶ Standing Declarations (Sept. 9, 2016). In license amendment proceedings, a petitioner may claim standing based upon a residence or visits near the plant, if the proposed action "quite 'obvious[ly]' entails an increased potential for offsite consequences." Commonwealth Edison Co. (Zion Nuclear Power Station, Units 1 & 2), CLI-99-04, 49 NRC 185, 191 (1999) (quoting Fla. Power & Light Co. (St. Lucie, Units 1 & 2), CLI-89-21, 30 NRC 325, 329–30 (1989)). Extended power uprate proceedings involve an obvious potential for offsite consequences. Fla. Power & Light Co. (St. Lucie Nuclear Power Plant, Unit 1), LBP-11-29, 74 NRC 612, 619 (2011); PPL Susquehanna LLC (Susquehanna Steam Electric Station, Units 1 & 2), LBP-07-10, 66 NRC 1, 18, aff'd on other grounds, CLI-07-25, 66 NRC 101 (2007); Entergy Nuclear Vt. Yankee, L.L.C. (Vt. Yankee Nuclear Power Station), LBP-04-28, 60 NRC 548, 553 (2004).

²⁷ The NRC Staff agrees that representational standing exists, NRC Staff Answer at 4, and TVA does not address standing, see TVA Answer at 1–12.

subject to [10 C.F.R. Part 2 procedural rules].”²⁸ Therefore, a petitioner may not challenge a regulatory requirement, unless it petitions for a waiver.²⁹

The proffered contentions are all expressions of Petitioner’s fundamental challenge to Appendix K and its required use of the Baker-Just equation.³⁰ Therefore, they are inadmissible absent a waiver. Petitioner has not requested a waiver of the prohibition of 10 C.F.R. § 2.335, nor could it. To obtain a waiver, a petitioner must demonstrate “special circumstances.”³¹ There are no special circumstances here. Petitioner’s challenge is a generic attack on a regulation of general applicability, not a challenge to its application in any unique circumstance.³²

Second, even if Petitioner’s contentions did not impermissibly challenge an existing NRC regulation, the pendency before the Commission of Mr. Leyse’s rulemaking petition constitutes a separate and independent ground for rejecting them. The pending petition for rulemaking raises the very same issues that are addressed in the Petition before this Board and in Mr. Leyse’s accompanying declaration.³³ Generally, licensing boards should not accept in individual license proceedings contentions that are the subject of rulemaking by the Commission.³⁴

Third, the proffered contentions are inadmissible because the Petition fails to

²⁸ 10 C.F.R. § 2.335(a).

²⁹ Id. § 2.335(b).

³⁰ 10 C.F.R. pt. 50, app. K.I.A.5.

³¹ 10 C.F.R. § 2.335(b).

³² See Pac. Gas & Electric Co. (Diablo Canyon Nuclear Power Plant, Units 1 & 2), CLI-15-21, 82 NRC 295, 302 (2015) (setting out four-factor test for special circumstances).

³³ See Petition at 32.

³⁴ See Duke Energy Corp. (Oconee Nuclear Station, Units 1, 2, & 3), CLI-99-11, 49 NRC 328, 345 (1999).

demonstrate a genuine dispute with the license amendment application, as required by 10 C.F.R. § 2.309(f)(1)(vi). Petitioner does not allege that the extended power uprate modeling was not performed in accordance with regulatory requirements, or point to any other error in TVA's application. Rather, Petitioner's basis for its contentions is that TVA's modeling applied an allegedly inadequate and non-conservative NRC regulatory requirement (that is, use of the Baker-Just equation), not that NRC regulations were evaded or misapplied.³⁵

C. Stay Request

In its Reply, Petitioner alleges for the first time that the NRC has engaged in "bad faith" or "improper behavior" in connection with Mr. Leyse's pending rulemaking petition.³⁶ Petitioner asserts that the nearly seven year delay in resolving the rulemaking petition violates the Administrative Procedure Act (APA),³⁷ warranting a denial or stay of the extended power uprate license amendment.³⁸

Generally, we do not consider arguments that are raised for the first time in a reply.³⁹ In any event, insofar as Petitioner claims unreasonable delay by the Commission, this Board cannot provide a remedy. The Commission—not this Board—has authority to stay a license amendment proceeding in light of pending rulemaking.⁴⁰ Nor does this Board have authority to review a claim of unreasonable delay regarding a petition for rulemaking that is before the

³⁵ Petitioner's allegation that peak cladding temperature may exceed regulatory limits is based on its advocated modeling approach, not the current modeling requirements of Appendix K. See Petition at 31, 35.

³⁶ Reply at 4.

³⁷ Id. at 2.

³⁸ Id. at 12.

³⁹ La. Energy Servs., L.P. (Nat'l Enrichment Facility), CLI-04-25, 60 NRC 223, 225 (2004).

⁴⁰ See 10 C.F.R. § 2.802(e); Entergy Nuclear Vt. Yankee, LLC (Vt. Yankee Nuclear Power Station), CLI-07-03, 65 NRC 13, 22 n.37 (2007).

Commission.⁴¹ Any such challenge should be raised directly with the Commission, or possibly before the courts.⁴²

III. CONCLUSION

Although Petitioner has standing to intervene, it has not pled an admissible contention. Therefore, the Petition is denied. Petitioner may appeal this decision to the Commission, pursuant to 10 C.F.R. § 2.311, within twenty-five days of service of this Order.

It is so ORDERED.

THE ATOMIC SAFETY
AND LICENSING BOARD

/RA/

Paul S. Ryerson, Chairman
ADMINISTRATIVE JUDGE

/RA/

Dr. Gary S. Arnold
ADMINISTRATIVE JUDGE

/RA/

Nicholas G. Trikouros
ADMINISTRATIVE JUDGE

Rockville, Maryland
November 2, 2016

⁴¹ See APA, 5 U.S.C. § 706 (the “reviewing court” shall compel agency action unlawfully withheld or unreasonably delayed).

⁴² See In re Aiken Cnty., 725 F.3d 255, 267 (D.C. Cir. 2013); Telecomms. Research & Action Ctr. v. FCC, 750 F.2d 70, 75–77 (D.C. Cir. 1984).

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(Browns Ferry Nuclear Plant -)	
Units 1, 2 and 3))	

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing **ORDER (Ruling on Petition to Intervene and Request for a Hearing) - LBP-16-11** have been served upon the following persons by the Electronic Information Exchange.

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Docket Nos. 50-259, 50-260 and 50-296-LA
ORDER (Ruling on Petition to Intervene and Request for a Hearing) – LBP-16-11

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[Original signed by Herald M. Speiser _____]
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Dated at Rockville, Maryland
this 2nd day of November, 2016