

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)
)
DUKE ENERGY CORPORATION) Docket Nos. 50-369, 370, 413 and 414
)
(McGuire Nuclear Station, Units 1 and 2,)
Catawba Nuclear Station, Units 1 and 2))

NRC STAFF'S RESPONSE TO
THE BOARD'S JULY 15, 2002 ORDER

INTRODUCTION

On July 10, 2002, the Atomic Safety and Licensing Board (Board) in this proceeding held a telephone conference with the staff of the Nuclear Regulatory Commission (Staff), the Blue Ridge Environmental Defense League (BREDL), the Nuclear Information and Resource Service (NIRS), and Duke Energy Corporation (Duke) regarding BREDL/NIRS's late-filed Amended Contention 2.¹ At the conclusion of this telephone conference, the Board scheduled another conference call for July 29, 2002, to discuss remaining issues associated with Amended Consolidated Contention 2. On July 15, 2002, the Board issued a written Order memorializing its decision to reconvene on July 29, 2002, and requested written filings from the parties by July 22, 2002, regarding certain specific issues raised during the July 10, 2002, telephone conference.² The Staff submits this response in accordance with the Board's July 15, 2002, Order.

¹ See Blue Ridge Environmental Defense League's and Nuclear Information and Resource Service's Amended Contention 2 (May 20, 2002).

² See Order (Addressing the Reconvening of Telephone Conference on Late-Filed Amendments to Petitioners' Contention 2 and Matters to be Addressed Prior to and at Conference) (July 15, 2002) (July 15th Order).

DISCUSSION

The Board's July 15, 2002, Order requires that the parties address the following issues in concise written filings:

1. The relevance of GSI-189 in this proceeding, in light of the Commission's Memorandum and Order in the matter of *Duke Energy Corporation (Oconee Nuclear Station, Units 1, 2, and 3)*, CLI-99-11, 49 NRC 328, 345 (1999) and any other pertinent authority;
2. Does the fact that station blackout provisions are part of the current licensing basis (CLB) preclude their consideration in a severe accident mitigation alternative (SAMA) analysis contention (supported by any pertinent case law or other authority);
3. In addition, Petitioners shall respond to legal arguments made by Duke and the Staff including those relating to the NEPA "hard look" doctrine; and
4. The parties may address matters not previously addressed that relate to the current filings on late-filed amendments to Contention 2.

July 15th Order at 2. The Staff responds to each of these issues below.

1. The Resolution of Generic Safety Issue (GSI) 189 is Irrelevant to the Adequacy of Duke's Application, and is Not Required as a Condition Precedent to the Issuance of a Renewed License

Generic Safety Issue (GSI) 189 is not relevant to this proceeding. GSI-189 evaluates whether it would be cost-beneficial to require installation of backup power to hydrogen igniters and/or air return fans as a means of controlling hydrogen buildup inside ice-condenser containments (and BWR Mark III containments) during station blackout events.³ The issue addressed by GSI-189 is a current operating issue. It is not related to managing the effects of aging during the period of extended operation. Therefore, the resolution of GSI-189 is outside the scope of license renewal. As discussed below, nothing in the language of the *Oconee* case alters

³See Memorandum from Farouk Eltawila, RES, to John T. Larkins, ACRS, RE: "Res Proposed Recommendation for Resolving Generic Safety Issue 189: 'Susceptibility of Ice Condenser and Mark III Containments to Early Failure from Hydrogen Combustion During a Severe Accident,'" May 13, 2002.

this conclusion. See *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2 and 3), CLI-99-11, 49 NRC 328 (1999).

In *Oconee*, the petitioners submitted a contention asserting that the applicant's environmental report should have addressed the impacts of transporting high-level waste to a high-level waste repository. *Oconee* at 345. At the time, the applicant had not evaluated the environmental impacts associated with transportation of spent fuel rods to an offsite repository because these impacts were the subject of a pending rulemaking.⁴ See *id.* The Commission held that the Licensing Board correctly denied admission of the contention, stating that "licensing boards 'should not accept in individual license proceedings contentions which are (or about to become) the subject of general rulemaking.'" *Id.* (citations omitted).⁵ The Commission also noted that while the rulemaking was not expected to delay the issuance of a renewed license, the environmental impacts associated with transportation of spent fuel rods to an offsite repository had to be evaluated as a condition precedent to the issuance of a renewed license, because they were within the scope of license renewal. *Id.* at 346.

By contrast, GSI-189 focuses on implementation of mitigative measures rather than evaluation of environmental impacts. This is the crucial distinction between *Oconee* and the present case: In *Oconee*, the environmental impacts of spent fuel transportation had to be evaluated before a renewed license could be issued because evaluation of those impacts was within the scope of license renewal. See 10 C.F.R. §§ 54.23, 51.53(c), 51.45. In the present case,

⁴The Commission had directed license renewal applicants not to address the environmental impacts associated with transportation of high level waste unless waiting for resolution of the matter through rulemaking would delay the license renewal proceeding. *Oconee* at 345.

⁵This holding is based on interests in adjudicatory efficiency. See *Oconee* at 346. In *Oconee*, it would have been inefficient for the Licensing Board to resolve a contention that raised issues identical to those being resolved through a concurrent rulemaking. As in *Oconee*, resolution of GSI-189 will not resolve the basic issue raised by BREDL/NIRS's Amended Contention 2, which focuses on the content of Duke's environmental reports.

Duke has already thoroughly evaluated the environmental impacts of SBO events; the implementation of any cost-beneficial mitigative measures identified as a result of that evaluation (in conjunction with the Staff's own environmental review) is beyond the scope of license renewal, because (1) implementation is not required under NEPA and (2) the subject matter addressed by GSI-189 is outside the scope of license renewal. See 10 C.F.R. § 51.53(c)(3)(ii)(L); *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 353 n. 9 (1989). Stated differently, *Oconee* involved the generic resolution of a matter within the scope of license renewal (evaluation of environmental impacts), whereas this case involves the generic resolution of a matter outside the scope of license renewal (implementation of non-aging-related mitigative measures). In sum, *Oconee* does not require that the Board determine how GSI-189 will be resolved in order to rule on the admissibility of Amended Contention 2.

Once Duke provided enough information to allow the Staff to perform a fair evaluation of whether certain severe accident mitigation alternatives are cost-beneficial, Duke fulfilled its legal obligations at this stage of the proceeding.⁶ The resolution of GSI-189 has no bearing on whether the content of Duke's application is adequate to allow for a fair consideration of environmental impacts by the Staff in its Final Environmental Impact Statement. Furthermore, because GSI-189 does not address issues related to aging management or time-limited aging analyses, it is not within the scope of license renewal. As the Commission has stated, "[r]esolution of a USI or GSI generically for the set of applicable plants is not necessary for the issuance of a renewed license. GSIs and USIs that do not contain issues related to the license renewal aging management review or time-limited aging evaluation are not a subject of review or finding for license renewal." Final Rule, Nuclear Power Plant License Renewal; Revisions, 60 Fed. Reg. 22,461, 22,484 (May 8,

⁶These obligations do not arise out of the National Environmental Policy Act of 1969 (NEPA), which imposes duties only on agencies of the federal government. See NEPA § 102. Rather, Duke's obligations in this case arise out of the Staff's requirements for an adequate license renewal application and its regulations implementing NEPA. See 10 C.F.R. §§ 51.53(c), 54.23.

1995). Where a generic safety issue does not address issues related to aging management or time-limited aging analyses, it is “not a subject of review or finding for license renewal,” and its resolution “is not necessary for the issuance of a renewed license.” *Id.*

Resolution of GSI-189 has no bearing on the adequacy of Duke’s SAMA analysis, which is only required to evaluate and identify mitigative measures. Neither NEPA nor the Commission’s regulations require that mitigative measures, once identified, be actually implemented as a condition precedent to the issuance of a renewed license. See 10 C.F.R. Subpart A, Appendix B, Table B-1; 10 C.F.R. § 51.53(c)(3)(ii)(L); *Robertson*, 490 U.S. at 353 n. 9. As the Supreme Court noted in *Robertson*, “[t]here is a fundamental distinction. . . between a requirement that mitigation be discussed in sufficient detail to ensure that environmental consequences have been fairly evaluated, on the one hand, and a substantive requirement that a complete mitigation plan be actually formulated and adopted, on the other.” 490 U.S. at 352. Stated differently, while measures designed to mitigate the environmental impacts of a proposed action must be evaluated in connection with certain federal actions, “NEPA imposes no substantive requirement that mitigation measures actually be taken. . .”⁷ *Id.* at 353 n. 9.

Based on the foregoing, the Staff submits that GSI-189 is not relevant to either the admission of the late-filed Amended Contention 2 or the decision of whether to issue renewed operating licenses.

⁷In their response to the Board’s July 15th Order, BREDL/NIRS concede that NEPA only requires disclosure of environmental impacts by federal agencies. See Blue Ridge Environmental Defense League’s and Nuclear Information and Resource Service’s Concise Written Filing in Response to Order of July 15, 2002 (July 20, 2002). While the Commission’s regulations require Duke to prepare an environmental report to be used in the preparation of the Staff’s Final Environmental Impact Statement, see 10 C.F.R. §§ 51.45, 51.53(c), 54.23, Duke’s environmental report fully complies with these regulations, and the “hard look” doctrine of NEPA jurisprudence does not apply.

2. Station Blackout May be Considered as a Contributor to Core Damage Frequency in a Severe Accident Mitigation Alternatives Analysis

The Commission's regulations require power reactor licensees to demonstrate an ability to withstand and recover from a station blackout as defined in 10 C.F.R. § 50.2. 10 C.F.R. § 50.63(a)(1). This requirement is part of the current licensing basis (CLB) of the reactor because it is a regulatory requirement that is docketed and in effect at the time the license renewal application is filed. See 10 C.F.R. § 54.3(a). The fact that station blackout is part of the current licensing basis means, *inter alia*, that Duke's compliance with the station blackout rule under its current operating license is outside the scope of license renewal and, therefore, not subject to review in this proceeding. See 10 C.F.R. § 54.30.

While Duke's current compliance with the station blackout rule cannot be challenged in this proceeding, the occurrence of station blackout may be considered as a contributor to core damage frequency in a SAMA analysis. The purpose of a SAMA analysis is to identify cost-beneficial safety enhancements that go beyond the CLB, not to set new standards that Duke must meet to ensure compliance with any given regulation (e.g., the station blackout rule). See *generally*, Policy Statement on Severe Reactor Accidents Regarding Future Designs and Existing Plants, 50 Fed. Reg. 32,138 (August 8, 1985). Because a SAMA analysis does not raise any issues related to Duke's current compliance with the station blackout rule, it is not inconsistent with 10 C.F.R. § 54.30 to assume the occurrence of station blackout in order to identify potential safety enhancements.

3. Because the National Environmental Policy Act of 1969 Imposes Requirements Only Upon Agencies of the Federal Government, the "Hard Look" Standard Does Not Apply When Judging the Adequacy of Duke's Application

As noted in the Staff's Answer to Blue Ridge Environmental Defense League's and Nuclear Information and Resource Service's Amended Contention 2 (June 10, 2002), the legal

requirements of NEPA apply only to federal agencies and not to private entities such as Duke.⁸ Because the Board directed this question solely to the Intervenors, the Staff does not address this issue further here.

4. Matters Not Previously Addressed Relating to Late-Filed Amendments to Contention 2

In the event Contention 4 of BREDL/NIRS's Amended Contention 2 is not further discussed at the July 29, 2002, telephone conference, the Staff wishes to clearly state its position regarding that contention here. The contention simply states that "Duke does not incorporate assumptions used in NUREG/CR-6427 or justify its failure to do so."⁹ In fact, Duke *does* incorporate the relevant assumptions of NUREG/CR-6427 by incorporating the conditional containment failure probabilities of the NUREG into its own plant-specific PRAs.¹⁰ The results gathered from this "sensitivity study"¹¹ reveal a potential risk reduction that can be compared to the risk reduction initially calculated by Duke using its own containment failure probability data. This range of risk reduction

⁸See NRC Staff's Answer to Blue Ridge Environmental Defense League's and Nuclear Information and Resource Service's Amended Contention 2 (June 10, 2002) at 16.

⁹Blue Ridge Environmental Defense League's and Nuclear Information and Resource Service's Amended Contention 2 (May 20, 2002) at 8.

¹⁰ See Duke Energy Corporation, "Response to Requests for Additional Information in Support of the Staff Review of the Application to Renew the Facility Operating Licenses of McGuire Nuclear Station, Units 1 & 2 and Catawba Nuclear Station, Units 1 & 2," at 6-8 (January 31, 2002); Duke Energy Corporation, "Response to Requests for Additional Information in Support of the Staff Review of the Application to Renew the Facility Operating Licenses of McGuire Nuclear Station, Units 1 & 2 and Catawba Nuclear Station, Units 1 & 2," at 5-7 (February 1, 2002).

¹¹In this context, a "sensitivity study" involves the use of input data from some set other than that initially used to calculate risk in Duke's PRA. Here, the alternative input data are products of the conditional containment failure probabilities used in NUREG/CR-6427. The purpose of the sensitivity study is to reveal the possible range of risk reduction achievable given different assumptions regarding containment failure probabilities.

(along with the data supporting it) provide ample information for use in evaluating the adequacy of Duke's SAMA analysis, and in determining what, if any, mitigative measures should be taken.¹²

CONCLUSION

For the reasons stated above, in conjunction with the Staff's previous arguments regarding the admissibility of BREDL/NIRS's Amended Contention 2 and all subparts thereof, the Staff submits that admission of BREDL/NIRS's Amended Contention 2 should be denied.

Respectfully submitted,

/RA/

Jared K. Heck
Counsel for NRC Staff

/RA/

Susan L. Uttal
Counsel for NRC Staff

Dated at Rockville, Maryland
this 22nd day of July, 2002.

¹²The Staff wishes to reemphasize that nothing in NEPA or the Commission's regulations require that mitigative measures actually be taken before the issuance of a renewed license, however, the Staff will use the SAMA analysis provided as part of Duke's license renewal application to determine whether any mitigative measures should be implemented under the current operating license.

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CERTIFICATE OF SERVICE

I hereby certify that copies of "NRC STAFF'S RESPONSE TO THE BOARD'S JULY 15, 2002 ORDER" 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; as indicated by two asterisks (**), by electronic mail, this 22nd day of July, 2002.

Ann Marshall Young, Chair** *
Administrative Judge
Atomic Safety and Licensing Board
U.S. Nuclear Regulatory Commission
Mail Stop: T-3F23
Washington, D.C. 20555
(E-mail: AMY@nrc.gov)

Lester S. Rubenstein** *
Administrative Judge
Atomic Safety and Licensing Board
U.S. Nuclear Regulatory Commission
Mail Stop: T-3F23
Washington, D.C. 20555
(E-mail: Lesrrr@msn.com)

Charles N. Kelber** *
Administrative Judge
Atomic Safety and Licensing Board
U.S. Nuclear Regulatory Commission
Mail Stop: T-3F23
Washington, D.C. 20555
(E-mail: CNK@nrc.gov)

Office of the Secretary** *
ATTN: Docketing and Service
U.S. Nuclear Regulatory Commission
Mail Stop: O-16C1
Washington, D.C. 20555
(E-mail: HEARINGDOCKET@nrc.gov)

Office of Commission Appellate
Adjudication** *
U.S. Nuclear Regulatory Commission
Mail Stop: O-16C1
Washington, D.C. 20555

Diane Curran, Esq.**
Harmon, Curran, Spielberg & Eisenberg
1726 M Street, N.W., Suite 600
Washington, DC 20036
(E-mail: dcurran@harmoncurran.com)

Paul Gunter**
Nuclear Information and Resource Service
1424 16th St. N.W.
Suite 404
Washington, D.C. 20026
(E-mail: pgunter@nirs.org)

Mary Olson**
Southeast Director of NIRS
P.O. Box 7586
Asheville, NC 20882
(E-mail: nirs.se@mindspring.com)

David A. Repka, Esq.**
Anne W. Cottingham, Esq.**
Winston & Strawn
1400 L Street, N.W.
Washington, D.C. 20005-3502
(E-mail: drepka@winston.com
acotting@winston.com)

Ms. Janet Zeller**
P.O. Box 88
Blue Ridge Environmental Defense League
Glendale Springs, N.C. 28629
(E-mail: BREDL@skybest.com)

Lisa F. Vaughn, Esq.**
Legal Dept. (PBO5E)
Duke Energy Corporation
422 So. Church St.
Charlotte, NC 28201-1006
(E-mail: lfVaughn@duke-energy.com)

Jesse Riley**
854 Henley Place
Charlotte, NC 28207
(E-mail: Jlr2020@aol.com)

Atomic Safety and Licensing Board Panel*
U.S. Nuclear Regulatory Commission
T-3F23
Washington, D.C. 20555

Donald J. Moniak**
P.O. Box 3487
Blue Ridge Environmental Defense League
Aiken, S.C. 29802
(E-mail: donmoniak@earthlink.net)

Raju Goyal**
U.S. Nuclear Regulatory Commission
Mail Stop: T-3F23
Washington, DC 20555
(E-mail: RXG5@nrc.gov)

/RA/

Jared K. Heck
Counsel for NRC Staff