

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

**RAS 6913**

ATOMIC SAFETY AND LICENSING BOARD PANEL

**DOCKETED 10/16/03**

**SERVED 10/16/03**

Before Administrative Judges:

Ann Marshall Young, Chair  
Dr. Charles N. Kelber  
Lester S. Rubenstein

In the Matter of

DUKE ENERGY CORPORATION

(McGuire Nuclear Station, Units 1 and 2,  
Catawba Nuclear Station, Units 1 and 2)

Docket No's. 50-369-LR, 50-370-LR,  
50-413-LR, and 50-414-LR

ASLBP No. 02-794-01-LR

October 16, 2003

**MEMORANDUM AND ORDER**

**(Ruling on Intervenors' Request for Reinstatement of Contention 1)**

This proceeding concerns the license renewal application (LRA) of Duke Energy Corporation (Duke), seeking approval under 10 C.F.R. Part 54 to renew the operating licenses for its McGuire Nuclear Station, Units 1 and 2, and Catawba Nuclear Station, Units 1 and 2. In this Memorandum and Order, the Licensing Board rules on Blue Ridge Environmental Defense League's [BREDL's] and Nuclear Information and Resource Service's [NIRS's] Request for Reinstatement of NIRS Contention 1 Regarding Environmental Impacts of MOX Fuel Use (April 11, 2003) [hereinafter Intervenors' Request]. For the reasons set forth below, we conclude that we must deny the Intervenors' Request. Because no other contentions are pending, we terminate this proceeding.

**Background**

In its June 13, 2001, application, Duke seeks to renew the licenses for its McGuire Nuclear Station, Units 1 and 2, located some 17 miles north-northwest of Charlotte, North Carolina, for additional twenty-year periods commencing in 2021 and 2023, respectively, and to

renew the licenses for its Catawba Nuclear Station, Units 1 and 2, located in South Carolina some 18 miles southwest of Charlotte, North Carolina, for additional twenty-year periods commencing in 2024 and 2026, respectively. By Memorandum and Order dated January 24, 2002, LBP-02-04, the Board admitted two contentions submitted by the Intervenors, one relating to severe accident mitigation alternatives (SAMAs) and station blackout risks in plants with ice condenser containments, and one relating to the anticipated use of plutonium mixed oxide (MOX) fuel in the Duke plants. Memorandum and Order (Ruling on Standing and Contentions), LBP-02-04, 55 NRC 49, 88-107, 118-30 (2002). After admission of the SAMA-related contention was affirmed in part and reversed in part in July 2002, see CLI-02-17, 56 NRC 1 (2002), as subsequently clarified in CLI-02-28, 56 NRC 373 (2002), the Licensing Board ruled the original SAMA contention to be moot, and, on October 2, 2003, denied admission of the Intervenors' Amended Contention 2, also relating to SAMAs, Order (Ruling on Duke Motion to Dismiss, Setting Briefing Deadlines, and Scheduling Oral Argument on Amended Contention 2) (Feb. 4, 2003); LBP-03-17, 58 NRC \_\_ (2003).

The contention having to do with the anticipated use of MOX fuel, designated Contention 1 in LBP-02-04, as originally admitted by us, read as follows:

Anticipated MOX fuel use in the Duke plants will have a significant impact on aging and environmental license renewal issues during the extended period of operations in the Duke plants, through mechanisms including changes in the fission neutron spectrum and the abundances of fission products, and must therefore be considered in the license renewal application and addressed in the Supplemental EIS.

LBP-02-04, 55 NRC at 107. Our admission of this contention was reversed by the Commission in CLI-02-14, 55 NRC 278 (2002).

The Intervenors now bring their Request for Reinstatement of the contention, based on Duke's February 2003 license amendment application (LAA) seeking approval "to use MOX lead test assemblies in the Catawba or McGuire reactor, various statements by Duke that clarify

its intention to proceed with the use of MOX fuel in the . . . reactors, and statements by the U. S. Department of Energy ('DOE') to the effect that (a) international plutonium disposition agreements depend on the use of MOX fuel in U.S. reactors, and (b) the amount of surplus plutonium committed to the MOX program has doubled." Intervenor's Request at 2.

## **Analysis**

### Intervenor's Arguments

Intervenor does not seek reinstatement of the safety-related aspects of Contention 1, *id.* at 4 n.2, but do contend that the environmental claims of the contention should be reinstated, *id.* at 4. Citing the Commission's statement in CLI-02-14 that "[t]o bring NEPA [the National Environmental Policy Act] into play, a possible future action must at least constitute a 'proposal' pending before the agency (i.e., ripeness), and must be in some way interrelated with the action that the agency is actively considering (i.e., nexus)," *id.* at 3 (citing 55 NRC at 295), Intervenor contends that their request should be granted because the new events they describe "now demonstrate that the issues raised by NIRS Contention are ripe for consideration, and that a nexus between license renewal and MOX use is sufficiently established to warrant consideration of the contention," *id.* at 1-2.

Noting that Duke's LAA proposal is for the use of "only four MOX fuel lead assemblies," Intervenor asserts that this nonetheless "constitutes the first concrete step toward full use of MOX fuel in the reactors," quoting, in support of this argument, from a February 27, 2003, Duke press release, as follows:

'We plan to use four MOX fuel assemblies (out of 193 total fuel assemblies) in one of the McGuire or Catawba nuclear reactors beginning in 2005. This process is designed to confirm the acceptable fuel performance we have already seen in European reactors, and allow us to request regulatory approval for larger-scale use of MOX fuel beginning around 2008,' said Steve Nesbit, MOX fuel project manager.

*Id.* at 5 (citing Exhibit 1 to Intervenor's Request; and the following internet address:

<http://www.dukepower.com/content/news/article/2003/feb/2003022703.html> [hereinafter Duke 2/27/03 Press Release]).

In addition, Intervenor's rely on a DOE announcement "that it had decided to drop immobilization as a strategy for disposing of 17 tons of surplus weapons-grade plutonium" and DOE's statement that its "current disposition strategy involves a MOX-only approach . . . [to] dispose of up to 34 t of surplus plutonium," implementation of which is "key to the successful completion" of a U.S.-Russian agreement for disposition of surplus weapons-grade plutonium.

*Id.* at 5-6 (citing Surplus Plutonium Disposition Program; Department of Energy, National Nuclear Security Administration: Amended Record of Decision, 67 Fed. Reg. 19,432 (April 19, 2002)).

Quoting statements from Duke's LAA and February 27, 2003, Press Release referring to the U.S.-Russian agreement,<sup>1</sup> Intervenor's argue that "[b]ecause Catawba and McGuire are the only plants that have been designated for MOX use, it is implicit that the participation of these reactors in the MOX program is considered 'key' to the successful completion of the U.S.-Russian agreement." *Id.* at 7. Thus, they maintain:

License renewal and MOX use therefore are inextricably interrelated, because use of MOX fuel in the Catawba and McGuire plants, for an extended time into

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<sup>1</sup>Intervenor's provide the following Duke statements from, respectively, Duke's LAA and 2/27/03 Press Release:

This license amendment request is being made as part of the ongoing United States-Russian Federation plutonium disposition program. The goal of this nuclear nonproliferation program is to dispose of surplus plutonium from nuclear weapons by converting the material into MOX fuel and using that fuel in nuclear reactors.

MOX fuel is a mature technology in Europe where 35 reactors currently use the fuel to generate electricity. Applying the technology in the United States is a key element of the international program to dispose of surplus plutonium from nuclear weapons, and thereby reduce the risk of terrorist groups or rogue nations obtaining the material.

Intervenor's Request at 7 & n.6 (emphasis omitted),

the future, is the only available avenue for disposal of the 34 tons of MOX that is to be produced under the U.S.-Russian agreement. If the Catawba and McGuire licenses are renewed without provision for use of MOX fuel, then the overall governmental policy of disposing of surplus weapons-grade plutonium will not be fulfilled. Thus, the renewal of the Catawba and McGuire licenses is inextricably tied to the MOX program.

*Id.* at 7-8. In a footnote, Intervenor state that “the goal of disposing of 34 tons of plutonium by using it in reactors could not be fulfilled by using MOX during the remaining terms of the Catawba and McGuire licenses. . . .” *Id.* at 8 n.7.

Intervenor argue in addition that a balancing of the criteria in 10 C.F.R. § 2.714(a)(i)-(v) for consideration of late-filed contentions weighs in favor of admitting Contention 1 at this point, stating that they filed their Request within 30 days of March 18, 2003, when Duke’s LAA became publicly available; that they have no other “means for protecting their interest in ensuring that the Supplemental EIS for the Catawba and McGuire nuclear plants provides a thorough discussion of reasonably foreseeable environmental impacts”; that there is no other party to represent their interests; that through the testimony of Dr. Edwin Lyman they may reasonably be expected to assist in the development of a sound record; and that any broadening or delay is “not due to any lack of diligence on the Intervenor’s part.” *Id.* at 8-9.

#### Duke Response

Duke argues that Intervenor’s Request is without merit, because as a procedural matter it should have been brought as a motion for reconsideration of CLI-02-14, directed to the Commission, and because, substantively, the issue of possible future MOX fuel use at McGuire or Catawba is “still beyond the limited scope of this license renewal proceeding,” as there is “still no ‘nexus’ between present and future MOX fuel amendment requests and the license renewal application,” nor are environmental issues relating to “possible long-term use of MOX fuel at Duke nuclear plants now ‘ripe’ for review in this renewal proceeding under the standard articulated by the Commission and the courts.” Response of Duke Energy Corporation to

Intervenors' Request for Reinstatement of the Environmental Aspects of the Previously Dismissed Contention 1 Concerning Mixed Oxide Fuel (April 21, 2003), at 2; see *id.* at 7-19.

Duke points out that “[t]o use significant, or ‘batch,’ quantities of MOX fuel at one of its reactors, Duke would eventually be required to submit another amendment request seeking the appropriate authority,” and that any batch utilization of MOX fuel at Duke facilities is “currently not anticipated to commence before 2008.” *Id.* at 5. According to Duke, based on information in its February 4, 2002, “Memorandum of Law in Support of Appeal of Duke Energy Corporation from Atomic Safety and Licensing Board Memorandum and Order LBP-02-04 (Ruling on Standing and Contentions) [hereinafter Duke Appeal Brief],” it was “well-understood that an amendment request for MOX fuel lead assemblies would precede an amendment request for batch use, and that the lead assembly request would be filed in the near future,” at the time the Commission issued CLI-02-14. *Id.* at 5 (citing Duke Appeal Brief at 4-6). And further, Duke states, the lead assemblies “will be utilized entirely within the initial 40-year license terms for either McGuire or Catawba.” *Id.* at 6.

Notwithstanding Duke’s arguments concerning the proper forum for the Intervenors’ Request, it also “requests that Intervenors’ claim be addressed in the manner and in the forum most likely to facilitate its quick resolution. . . .” *Id.* at 7 n.14. Finally, Duke argues that the Intervenors have not provided any “material new information that would support a timely ‘late-filed contention,’” or otherwise shown its admissibility as such. *Id.* at 9-11.

#### Staff Response

The NRC Staff argues that, to the extent the Intervenors’ Request can be interpreted as a late-filed contention, it fails to satisfy the late-filing criteria of 10 C.F.R. § 2.714(a)(i)-(v), (b)(1), primarily because “there are other means whereby the petitioners’ interest will be protected,” referring to the possibility of a future license amendment request for the full scale use of MOX at Catawba and McGuire. NRC Staff’s Response to Intervenors’ Request for Reinstatement of

NIRS' Contention Regarding Environmental Impacts of Mixed Oxide Fuel Use (April 21, 2003), at 4 [hereinafter Staff Response]. The Staff also asserts that, under the Commission's ruling in CLI-02-14, MOX is beyond the scope of this proceeding, and that no new information has been provided to satisfy the "ripeness" and "nexus" tests discussed in CLI-02-14, wherein the Commission referred to uncertainties including "actions by the U.S. Department of Energy, including the consummation of certain international agreements, the outcome of the current licensing proceeding for the proposed MOX fuel fabrication facility in South Carolina, and plutonium disposition activities in Russia." *Id.* at 3, 5-8.

### **Board Ruling**

In reversing the Licensing Board's admission of Contention 1, the Commission (1) found the contention inadmissible under the "AEA-based license renewal regulations," CLI-02-14, 55 NRC at 292-94; in addition, (2) stated that it considered "Duke's potential filing of a MOX application" to be "simply too inchoate to rise to the level of a 'proposal' within the meaning of *Kleppe* [*v. Sierra Club*] and its progeny," and consequently concluded that "the possible MOX application fails the 'ripeness' test," *id.* at 296 (citing *Kleppe v. Sierra Club*, 427 U.S. 390, 406 (1976)); and, finally, (3) stated that it saw "no 'interdependence' *at all* between Duke's license renewal application and any potential fuel-related amendment application," and concluded that the "nexus test" under NEPA was not satisfied, *id.* at 297 (emphasis in original).

In reaching its conclusion with regard to "nexus," the Commission noted:

License renewal obviously can go forward without reference to the MOX issue. The Catawba and McGuire plants could operate throughout their current licensing term plus an additional 20-year renewal term (if license renewal is approved) without using MOX fuel, just as they have to date. Likewise, assuming Commission authorization, the plants could use MOX fuel during the remainder of their current operating licenses regardless of whether Duke had sought any license renewals. License renewal and MOX use are, in short, separate questions.

*Id.* (footnote omitted).

The Commission in reaching its ruling stated that “to bring NEPA into play, a possible future action must at least constitute a ‘proposal’ pending before the agency (i.e., ripeness) and must be in some way interrelated with the action that the agency is actively considering (i.e., nexus).” *Id.* at 295 (footnote omitted).

We note Intervenor’s argument that “the goal of disposing of 34 tons of plutonium by using it in reactors could not be fulfilled by using MOX during the remaining terms of the Catawba and McGuire licenses,” and that as a result, “[i]f the Catawba and McGuire licenses are renewed without provision for use of MOX fuel, then the overall governmental policy of disposing of surplus weapons-grade plutonium will not be fulfilled.” Intervenor’s Request at 7, 8 & n.7. It is not certain, however, what will happen with regard to the DOE proposal, as noted by the Commission in CLI-02-14. See 55 NRC at 296. And use of MOX lead test assemblies in any Duke plant does not necessarily mean that MOX will be used in any Duke plant thereafter on a full-scale basis, as argued by the Staff. Staff Response at 6-8.

Under the authority of CLI-02-14, we find no current proposal to use the MOX fuel during the renewal period and thus no “ripeness” or “nexus,” as required therein. Therefore, the Intervenor’s Request must be denied. We note, however, as stated by the Commission, “NIRS and BREDL are of course free to raise MOX-related safety and environmental issues (including the question whether the use of MOX fuel will aggravate any aging effects) when and if Duke submits a license amendment application seeking permission to possess and use MOX fuel.” CLI-02-14, 55 NRC at 297.



**Order**

1. Based on the foregoing discussion, the Intervenor's Request for Reinstatement of NIRS Contention 1 Regarding Environmental Impacts of MOX Fuel Use is denied. Because this is the only remaining contention awaiting our ruling, this proceeding must now be and is hereby terminated.

2. This Memorandum and Order is effective immediately and, in accordance with 10 C.F.R. § 2.760 of the Commission's Rules of Practice, shall become the final action of the Commission forty (40) days from the dates of its issuance, or on November 25, 2003, unless a party petitions the Commission for review in accordance with 10 C.F.R. § 2.786 or the Commission takes review on its own motion.

3. Within fifteen (15) days after service of this Memorandum and Order, any party may seek review by filing a petition for review with the Commission on the grounds specified in 10 C.F.R. 2.786(b)(4). The filing of a petition for review is mandatory for a party to exhaust its administrative remedies before seeking judicial review. 10 C.F.R. 2.786(b)(1).

4. Any petition for review shall be no longer than ten (10) pages and shall contain the information set forth at 10 C.F.R. § 2.786(b)(2). Any other party may, within ten (10) days after service of a petition for review, file an answer supporting or opposing Commission review. Any such answer shall be no longer than ten (10) pages and, to the extent appropriate, should concisely address the matters in 10 C.F.R. § 2.786(b)(2). 10 C.F.R. 2.786(b)(3). A petitioning party shall have no right to reply, except as permitted by the Commission. *Id.*

It is so ORDERED.

THE ATOMIC SAFETY  
AND LICENSING BOARD

*/RA/*

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Ann Marshall Young, Chair  
ADMINISTRATIVE JUDGE

*/RA/*

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Dr. Charles N. Kelber  
ADMINISTRATIVE JUDGE

*/RA/*

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Lester S. Rubenstein  
ADMINISTRATIVE JUDGE

Rockville, Maryland  
October 16, 2003<sup>2</sup>

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<sup>2</sup>Copies of this Memorandum and Order were sent this date by Internet e-mail or facsimile transmission, if available, to all participants or counsel for participants.

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

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

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing LB MEMORANDUM AND ORDER (RULING ON INTERVENORS' REQUEST FOR REINSTATEMENT OF CONTENTION 1) (LBP-03-19) have been served upon the following persons by deposit in the U.S. mail, first class, or through NRC internal distribution.

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Docket Nos. 50-369/370/413/414-LR  
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OF CONTENTION 1) (LBP-03-19)

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[Original signed by Evangeline S. Ngbea]

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Office of the Secretary of the Commission

Dated at Rockville, Maryland,  
this 16<sup>th</sup> day of October 2003