December 19, 2003

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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

NRC STAFF'S REPLY TO BLUE RIDGE ENVIRONMENTAL DEFENSE LEAGUE'S RESPONSE TO BOARD QUESTIONS

INTRODUCTION

During the pre-hearing conference on December 3 and 4, 2003, in Charlotte, North Carolina, the Atomic Safety and Licensing Board (Board) requested further information from the parties regarding specific issues. *See* December 4, 2003 Transcript of Pre-Hearing Conference (12/4/03 Tr. at 278-280). On December 15, 2003, the Board issued an Order (Regarding Deadlines and Scheduling Issues), setting deadlines for the parties to respond to the Board's questions. The Blue Ridge Environmental Defense League (BREDL) filed its response on December 12, 2003.[1] The NRC staff (Staff) hereby submits its reply to BREDL's response to questions 2(a), 2(b) and 2(d) as designated in the ASLB's December 15, 2003 Order.

RESPONSE TO QUESTIONS

2(a). Issues Relating to Duke's Proposed Withdrawal of Section 3.8

The Staff takes no position regarding the withdrawal of § 3.8 of the License Amendment Request (LAR). As the Staff stated in its response to contentions and at oral argument,[2] § 3.8, which addressed the risk impact of MOX fuel assemblies, is not relevant to the staff's evaluation

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[1] Blue Ridge Environmental Defense League's Response to Board Questions, December 12, 2003 (BREDL's Response).

[2] *See, e.g.,* 12/3/03 Tr. at 70, 72-76, 105-106.

of the LAR, because compliance of the LAR with NRC requirements is not established on a risk-informed basis. Duke did not submit risk information in support of the proposed amendment or analyze the proposed change as a risk-informed amendment. Therefore, at the current time, the Staff is not reviewing this as a risk-informed amendment. Rather, the Staff is currently evaluating Duke's proposal using traditional engineering analysis and has not identified a reason to ask for risk information from Duke to support a formal risk-informed review pursuant to Staff guidance for such reviews.

2(b). Applicability of Council on Environmental Quality Regulations

The Board asked the parties to provide further case law with regard to the applicability of the CEQ regulations to NRC proceedings. 12/4/03 Tr. at 279. CEQ regulations are binding on the NRC only to the extent that the agency has expressly adopted them. *Limerick Ecology Action, Inc. v. U.S. Nuclear Regulatory Commission*, 869 F.2d 719, 743 (3rd Cir. 1989). The Commission has stated:

> the NRC as an independent regulatory agency can be bound by CEQ's NEPA regulations only insofar as those regulations are procedural or ministerial in nature. NRC is not bound by those portions of CEQ's NEPA regulations which have a substantive impact on the way in which the Commission performs its regulatory functions.

NRC Final Rule, Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions and Related Conforming Amendments, 49 Fed. Reg. 9,352, 9,352 (March 12, 1984).

BREDL's Contention 4 states that Duke's Environmental Report (ER) is deficient because it fails to address the environmental impacts of using batch quantities of MOX fuel. BREDL contends that under Executive Order 11991, 3 C.F.R. 124 (1978), and *Andrus v. Sierra Club*, 442 U.S. 347 (1979),Duke must comply with 40 C.F.R. § 1508.25, which defines the scope of actions to be considered in an EIS, by considering the "connected" action of irradiating batch quantities of MOX fuel. BREDL's Response at 2-3. Section 1508.25(a)(1) explains that:

> Actions are connected if they:
>
> (1) Automatically trigger other actions which may require environmental impact statements.
>
> (2) Cannot or will not proceed unless other actions are taken previously or simultaneously.
>
> (3) Are interdependent parts of a larger action and depend on the larger action for their justification.

Although in 10 C.F.R. § 51.14(b) the Commission stated that the definitions in 40 C.F.R. § 1508.25 will also be used in implementing section 102(2) of the National Environmental Policy Act (NEPA), the "connected action" definition in that section does not support BREDL's assertion that the possible future irradiation of batch quantities of MOX fuel is an action that must be considered in Duke's ER. The irradiation of MOX LTAs does not "automatically trigger" the irradiation of batch quantities of MOX. *See* 40 C.F.R. § 1508.25(a)(1)(i). To irradiate batch quantities of MOX, Duke would have to file a separate license amendment application with the NRC. Duke may choose never to apply to irradiate batch quantities. Second, the irradiation of MOX LTAs can proceed regardless of whether Duke ever applies to irradiate batch quantities of MOX. *See* 40 C.F.R. § 1508.25(a)(1)(ii). The irradiation of MOX LTAs is not dependant on Duke irradiating batch quantities prior to or simultaneously with the MOX LTAs. The only "action" that must proceed before or simultaneously with Duke's proposed action of irradiating four MOX LTAs is the actual receipt of the four LTAs. Finally, the fact that Duke is participating in the United States-Russian Federation plutonium disposition program does not make the irradiation of MOX LTAs and batch quantities interdependent parts of a larger action. *See* 40 C.F.R. § 1508.25(a)(1)(iii). Duke's participation in the program is irrelevant to the NRC in its decision making process. Because the categories of connected actions do not apply to the proposed and possible actions as asserted by BREDL, BREDL's reliance on 40 C.F.R. § 1508.25 is misplaced.

In *Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-14, 55 NRC 278, 295 (2002), the Commission delineated a two-pronged test governing when, under NEPA, a possible future action must be considered in an environmental impact statement (EIS) for a proposed action. The Commission stated that "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)." (Emphasis added). The Commission quoted *National Wildlife Federation v. FERC*, 912 F.2d 1471, 1478 (D.C. Cir. 1990), in which the court held:

> *Kleppe* [*v. Sierra Club*, 427 U.S. 390 (1976)]. . . clearly establishes that an EIS need not delve into the possible effects of a hypothetical project, but need only focus on the impact of the particular proposal at issue and other pending or recently approved proposals that might be connected to or act cumulatively with the proposal at hand.

Duke Energy Corp., 55 NRC at 295 (emphasis added).

The Commission held that, first, the possible future action must be "concrete or reasonably certain," rather than "merely contemplated." *Id.* Second, there must be a nexus between the proposed action and the possible future action. The Commission stated that "when developing an EIS, an agency must consider the impact of other proposed projects 'only if the projects are so interdependent that it would be unwise or irrational to complete one without the other.'" *Id.*, quoting *Webb v. Gorsuch*, 699 F.2d 157, 161 (4th Cir. 1983).

The issue in BREDL Contention 4 is whether Duke is required to consider in its ER the cumulative effect of its current license amendment application to use MOX LTAs at Catawba together with an as-yet-nonexistent application for an amendment permitting the use of batch quantities of MOX fuel. Thus far in its Supplemental Petition to Intervene and during its oral argument at the pre-hearing conference BREDL has not satisfied the ripeness prong. Under *Duke Energy Corp.*, the possible future use of quantities MOX fuel is not ripe for consideration where Duke has not filed a license amendment application seeking to irradiate batch quantities of MOX fuel. CLI-02-14, 55 NRC at 295-6. Furthermore, BREDL also failed to satisfy the nexus prong, because it did not demonstrate that the proposed action and the possible future action are interdependent. *Id.* at 296-97. In the case at hand, the irradiation of MOX LTAs at Catawba is not dependent on Duke irradiating batch quantities of MOX fuel at Catawba; Duke could irradiate its four MOX LTAs and never file a license amendment application to use batch MOX fuel. Therefore, because the irradiation of four MOX LTAs and the irradiation of batch quantities of MOX fuel are not interdependent, the nexus prong is not satisfied. *Id.* BREDL's argument that the Staff must defer to 40 C.F.R. § 1508.25 fails, because BREDL has failed to satisfy both § 1508.25 and the Commission's two-pronged test.

2(d). NEPA Case Law Regarding Alternatives

The Board asked the parties to provide further case law regarding consideration of alternatives under NEPA. 12/4/03 Tr. at 280. BREDL argues that Duke has improperly defined the purpose of its LAR, thus limiting the alternatives it would have to consider under NEPA. BREDL Response at 6-7. BREDL asserts that DOE's purpose is to be considered rather than Duke's, because Duke is participating in the United States-Russian Federation plutonium disposition program. *Id.* at 6. Based on its argument that DOE's purpose must be considered, BREDL contends that the scope of alternatives to be evaluated is broader than those examined by Duke in the LAR. *Id.* at 7.

BREDL asserts that *Citizens Against Burlington v. Busey*, 938 F.2d 190, 195, 198-99 (D.C. Cir. 1991), *cert. denied*, 502 U.S. 994 (1991) (holding that applicant's goals for its proposed action define reasonable alternatives to be evaluated), does not apply to this proceeding simply because "Duke would not be making this license amendment application if it were not for DOE's [United States-Russian Federation plutonium disposition program]," which is a "government-subsidized program" under which DOE can "choose from the entire range of U.S. commercial reactors to which to offer its subsidy." BREDL Response at 6-7. The holding in *Busey*, that alternatives are only feasible if they accomplish the applicant's goals, applies regardless of whether the government is sponsoring the applicant's proposed action. *Id.* at 192, 194-196, 198-199. In *Busey*, the Toledo-Lucas County Port Authority planned to use public and private funds to construct a cargo hub in Toledo, and thereby improve the Toledo economy, *id.* at 192; the court held that only alternatives which would achieve the Port Authority's goals for the proposed action were to be evaluated. *Id.* at 198-199. *Busey*, therefore, applies to the case at hand regardless of Duke's participation in DOE's program.[3]

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[3] BREDL also argues that *City of Angoon v. Hodel*, 803 F.2d 1016 (9th Cir. 1986) and *Roosevelt Campobello International Park v. U.S. EPA*, 684 F.2d 1041, 1046-47 (1st Cir. 1982) do not govern here. BREDL attempts to distinguish *City of Angoon* by asserting that the "range of reasonable alternatives was pre-determined by a conveyance of land by the U.S. Congress," whereas in the case at hand "DOE may choose from the entire range of U.S. commercial reactors." BREDL Response at 7. This distinction fails, however; *City of Angoon* holds that the range of reasonable alternatives is determined by what is available to the applicant. 803 F.2d at 1021-22. In *City of Angoon*, the Army Corps of Engineers did not have to consider as an alternative land that the applicant did not possess, but rather was limited to the land Congress conveyed to the applicant. *Id.* Here, DOE is not the applicant before the NRC. Duke is the applicant, and the range of reasonable alternatives available is limited to reactors that Duke owns or operates.

BREDL cites *Roosevelt*, focusing on the court's statement that an agency's role "in reviewing privately sponsored projects 'is to determine whether the proposed site is environmentally acceptable,' and not, as in the case of a publicly funded project, 'to undertake to locate what EPA would consider to be the optimum site for a new facility.'" In *Roosevelt*, the proposed action in dispute was privately funded. The court in *Roosevelt* gave no guidance as to how the scope of alternatives is to be defined for publicly funded projects. The court does not clarify whether the range of alternative sites for publicly funded projects is dependant upon whether the government or a private entity is the applicant. The court's entire discussion on alternatives available for the *privately* funded project before it is limited to one paragraph and gives no guidance into how the scope of alternatives for *publicly* funded projects should be defined.

BREDL incorrectly argues that "DOE's purpose . . . is primary in this government-subsidized program" and is to be considered rather than the purpose and need of Duke.[4] BREDL Response at 6-7. BREDL offers no case law holding that where the action an applicant seeks to license will be sponsored by another entity, the entity's purpose and needs are to be considered in place of the goals laid out by the applicant. *Busey* clearly states that "[w]hen an agency is asked to sanction a specific plan, the agency should take into account the needs and goals of the *parties involved* in the application." *Busey*, 938 F.2d at 196 (citations omitted and emphasis added). *See also*, *Hydro Resources Inc.*, CLI-01-04, 53 NRC 31, 55 (2001). Here, DOE is not a party to Duke's application before the NRC and is not otherwise a participant in this case. Duke's participation in the DOE program and the source of the plutonium Duke wishes to irradiate are irrelevant to the Staff in its decision making process, which is to determine whether the applicant's submission complies with Atomic Energy Act, NEPA, and the Commission's regulations. Under *Busey*, Duke's definition of purpose is the only one that is relevant before this Board because Duke is the applicant before the NRC.

BREDL also attempts to supplant Duke's company-specific goals with the more general goals of DOE's program, and thus contends that a broader range of alternatives must be evaluated in the LAR. BREDL Response at 6. *Busey* explicitly holds that the goal of the particular applicant, and not the general goal redefined by the intervenor, limits the scope of feasible alternatives. *Busey*, 938 F.2d at 198-199. In rejecting Citizens Against Burlington's argument that "the evaluation of 'alternatives' mandated by NEPA is to be an evaluation of alternative means to accomplish the *general* goal of an action; it is not an evaluation of the alternative means by which a particular applicant can reach his goals," the court stated that "[a]n agency cannot redefine the

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[4] To the extent that BREDL's assertion concerns batch quantities of MOX fuel, it is outside the scope of this proceeding. As noted before, Duke has not filed, and may never file, an application to irradiate batch quantities of MOX fuel.

goals of the proposal that arouses the call for action; it must evaluate alternative ways of achieving *its* goals, shaped by the application at issue and by the function that the agency plays in the decisional process." *Id.* Therefore, the scope of alternatives to be evaluated is limited by Duke's goals, because under *Busey*, BREDL cannot replace Duke's company-specific purpose with the more general goals of DOE's program.

In addition, BREDL argues that Duke's purpose and need are "absurdly narrow," thus precluding a re-evaluation of the other reactors examined in DOE's SPDEIS as an alternative.[5] BREDL Response at 7. Even if BREDL was allowed to replace Duke's goals with those of DOE, Duke would not be required to discuss in its ER the reactors it does not own or operate that were examined in the SPDEIS, because the use of these reactors would not be a feasible alternative. *Busey*, 938 F.2d at 195, 198 (stating that applicants need to discuss only feasible alternatives, which are alternatives that can accomplish applicant's goal). The alternative of using a reactor not owned or operated by Duke to irradiate MOX LTAs is not feasible because it cannot be implemented by Duke, and thus cannot accomplish Duke's goal. *Seattle Audubon Society v. Moseley*, 80 F.3d 1401, 1404 (9th Cir. 1996) (stating that NEPA does not require agencies to "consider every possible alternative to a proposed action, nor must it consider alternatives that are unlikely to be implemented or those inconsistent with its basic policy objectives.");*City of Angoon v. Hodel*, 803 F.2d 1016, 1021-22 (9th Cir. 1986) ("The alternatives, however, must be ascertainable and reasonably within reach."). *See also*, NRC Final Rule, Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions and Related Conforming Amendments, 49 Fed. Reg. 9,352, 9,353 (March 12, 1984) (". . . the Commission has no power to compel an applicant to come forward or to require an applicant, once having come forward, to prepare and

[5] BREDL is attempting to create NRC jurisdiction over DOE's SPDEIS by broadly redefining Duke's goals. In this regard, the NRC does not have jurisdiction over DOE and thus cannot re-evaluate DOE's SPDEIS in light of new information.

submit a totally different proposal, for example to construct and build a different type of nuclear power reactor pursuant to detailed specifications furnished by the Commission on a site identified by the Commission but not chosen by the applicant. As an independent regulatory agency, the NRC does not select sites or designs or participate with the applicant in selecting proposed sites or designs."). Therefore, even if BREDL is permitted to broadly restate Duke's goal, the alternative of using reactors not owned by Duke would not have to be explored in Duke's ER because it is not feasible.

Finally, BREDL does not provide any case law supporting its assertion that Duke's goals are too narrowly defined because the number of feasible alternatives available for Duke's proposed goal are limited.[6] BREDL Response at 6,7. Under *Busey*, which holds that ". . . the agency should take into account the needs and goals of the parties involved in the application," Duke's goals are not too narrowly defined.[7] In fact, the number of feasible alternatives in this case outnumber those in *Busey* where the court upheld the FAA's decision that only two alternatives had to be considered - the expansion of the airport in Toledo and the no the action alternative - and struck down the Citizens Against Burlington's argument that other sites, which would not have accomplished the FAA's purpose, had to be considered as alternatives. *Busey*, 938 F.2d at 198 (stating that "the

[6] Moreover, BREDL incorrectly restates the Staff's argument as: "[b]ased on [the premise that the scope of reasonable alternatives is determined by the purpose and the need of the applicant], . . . there are no reasonable alternatives other than the no action alternative, because Duke has no other plants that it wishes to use for plutonium fuel." BREDL Response at 6. The Staff never suggested that the scope of alternatives is limited by Duke's desire to use plutonium at only Catawba and none of its other reactors. The Staff stated in its response to BREDL's supplemental petition to intervene that Duke's goal was to irradiate plutonium at a reactor owned or operated by Duke. NRC's Response to (1) Blue Ridge Environmental Defense League's Supplemental Petition to Intervene and (2) Nuclear Information and Resource Service's Contentions dated 11/10/03 at 14-16. The Staff also stated that Duke adequately considered McGuire, a reactor it owned, as an alternative. *Id.* Furthermore, at the pre-hearing conference, the Staff conceded that Duke needed to consider Oconee as an alternative in its ER. 12/4/03 Tr. at 456.

[7] *See also, HRI,* 53 NRC at 55 ("The agency . . . may take into account the 'economic goals of the project's sponsor.").

FAA acted reasonably in defining the purpose of its action, in eliminating alternatives that would not achieve it, and in discussing (with the required do-nothing option)."). Similarly, Duke's goal is not too narrowly defined where the alternatives to be considered are to irradiate MOX LTAs at Catawba, irradiate MOX LTAs at another reactor it owns or operates, and the no action alternative.

Respectfully submitted,

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Dated at Rockville, Maryland
this 19th day of December, 2003

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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CERTIFICATE OF SERVICE

I hereby certify that copies of "NRC STAFF'S REPLY TO BLUE RIDGE ENVIRONMENTAL DEFENSE LEAGUE'S RESPONSE TO BOARD QUESTIONS" 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; and by e-mail as indicated by a double asterisk (**), this 19th day of December, 2003.

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