

RAS 4788

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

August 27, 2002 (11:30AM)

BEFORE THE COMMISSION

OFFICE OF SECRETARY
RULEMAKINGS AND
ADJUDICATIONS STAFF

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

August 12, 2002

**BLUE RIDGE ENVIRONMENTAL DEFENSE LEAGUE'S AND
NUCLEAR INFORMATION AND RESOURCE SERVICE'S RESPONSE TO
DUKE ENERGY CORPORATION'S MOTION FOR CLARIFICATION**

Introduction

Intervenors Blue Ridge Environmental Defense League ("BREDL) and Nuclear Information and Resource Service ("NIRS") hereby respond to Duke Energy Corporation's ("Duke's") Motion for Clarification of Memorandum and Order CLI-02-17 (August 2, 2002) (hereinafter "Duke Motion"). In CLI-02-17, the Commission upheld the Atomic Safety and Licensing Board's ("ASLB's") decision to admit a portion of Intervenors' Consolidated Contention 2, regarding the adequacy of Duke's Severe Accident Mitigation ("SAMA") analysis to consider information provided in an NRC Study regarding the vulnerabilities of nuclear plants with ice condenser containments. Memorandum and Order (July 23, 2002).

To the extent that Duke's motion asks the Commission to clarify a factual error made in CLI-02-17, the Intervenors do not object. However, Duke's motion mischaracterizes the significance of the error. It also goes far beyond a request for clarification, and improperly asks the Commission to interfere in the workings of the ASLB to which it has delegated primary responsibility in this proceeding.

Template = SECY-041

SECY-02

Background

On November 29, 2001, BREDL and NIRS submitted contentions challenging the adequacy of Duke's license renewal applications for the Catawba and McGuire nuclear power plants. Blue Ridge Environmental Defense League Submittal of Contentions in the Matter of the Renewal of Licenses for Duke Energy Corporation, Etc. (November 29, 2001); Contentions of Nuclear Information and Resource Service (November 29, 2001). Among their contentions, BREDL Contention 4 asserted, *inter alia*, that Duke's SAMA analysis is incomplete because it fails to incorporate new and extensive information regarding ice condenser vulnerabilities, particularly the findings of a recent report by Sandia National Laboratories, NUREG/CR-6427, Assessment of the DCH [Direct Containment Heating] Issue for Plants With Ice Condenser Containments (April 2000) (hereinafter "NUREG/CR-6427" or "Sandia Study"). NIRS Contention 1.1.4 asserted that Duke's license renewal application failed to mention NUREG/CR-6427, or to provide an analysis of the findings of NUREG/CR-6427, with respect to the four McGuire and Catawba reactors. NIRS Contention 1.1.5 also contended that Duke had not considered a SAMA of providing a dedicated electrical line from the hydroelectric generating dams adjacent to each reactor site.

On January 24, 2002, in LBP-02-04, a Memorandum and Order (Ruling on Standing and Contentions), the ASLB ruled, *inter alia*, that:

BREDL and NIRS have provided a sufficient, reasonably specific explanation of the bases of their contentions to meet the requirement of section 2.714(b)(2)(ii), as well as sufficient expert opinion, facts, and references to sources and documents to support the contentions under section 2.714(b)(2)(iii) to show that a genuine dispute exists with regard to the material facts of whether and to what extent Duke's SAMA analysis should take into account the calculations and values referenced in NUREG/CR-6427 and include the alternative of a separate dedicated line as described below.

Id., 55 NRC 49, 127 (2002).

Accordingly, the ASLB partially admitted BREDL Contention 4 and NIRS Contentions 1.1.4 and 1.1.5 with respect to the adequacy of the SAMA and reworded it as follows in a re-numbered Consolidated Contention 2:

The Duke SAMA analysis is incomplete, and insufficient to mitigate severe accidents, in that it

- (a) fails to include information from NUREG/CR-6427, and
- (b) fails to include a severe accident mitigation alternative relating to Station Blackout-Caused Accidents, namely, a dedicated electrical line from the hydroelectric generating dams adjacent to each reactor site.

Id., 55 NRC at 128. Duke appealed the decision.

While the appeal was pending, the ASLB proceeded with its oversight of the litigation of Consolidated Contention 2, holding several telephone conferences with the parties. These teleconferences revealed that the parties are in basic disagreement regarding the scope of Consolidated Contention 2. Duke takes the position that the only “value” of NUREG/CR-6427 that needs to be taken into consideration in its SAMA analysis is the conditional containment failure value. Having taken that value into account in RAI responses submitted in January and February 2002, Duke believes it has mooted the contention. The Intervenors believe that there are other “values” in NUREG/CR-6427, besides conditional containment failure probability, that should be taken into account. Moreover, Intervenors believe that the adequacy with which Duke takes these values into account is at issue, not just whether certain numbers from NUREG/CR-6427 were plugged into Duke’s SAMA analysis. Indeed, if Duke’s interpretation of the contention held the day, it would make a mockery of the concept of considering the values of NUREG/CR-6427. While Duke did, in fact, use the

conditional containment failure value of NUREG/CR-6427 in its updated SAMA analysis, it did so in a manner that cancelled the overall significance of incorporating that value. It accomplished this by using a lower value for station blackout (“SBO”) probability than had been used in NUREG/CR-6427. As a result, Duke’s estimate of the overall probability of containment failure was lower than the estimate in NUREG/CR=6427. Duke did not fully explain the basis for this different assumption, or divulge the underlying assumptions. In fact, Duke has refused to release the document that could assist the Intervenor in verifying the reasonableness of Duke’s substitute assumption, the current version of Duke’s probabilistic risk assessment (“PRA”).

On July 23, 2002, the Commission issued CLI-02-17. While the Commission rejected the second portion of Consolidated Contention 2, relating to the accident mitigation alternative of a dedicated transmission line, it affirmed the ASLB’s decision to admit the first portion of the contention. The Commission concluded that the ASLB reasonably found that “a sufficient question had been raised about the SAMA analyses’ failure to address or otherwise acknowledge results from the Sandia study.” CLI-02-17, slip op. at 11. The Commission characterized the “merits question” variously as “whether the Sandia study’s assumptions reflected better estimates than Duke’s or whether Duke’s SAMA analysis should have addressed the study,” and “whether the SAMAs should have applied the containment failure probability estimates from the Sandia study, which would have resulted in larger ‘benefits’ being associated with the individual SAMAs.” *Id.* at 11-12.

On July 29, 2002, the ASLB held a telephone conference with the parties, in which they discussed the parties’ various disputes in light of the recently-issued CLI-02-

17. The ASLB pointed out that CLI-02-17 indicates that the Commission views Consolidated Contention 2 as embracing the concept of the adequacy of Duke's consideration of the values in NUREG/CR-6427. Tr. at 1081-1084. The Chair of the ASLB also pointed out that CLI-02-17's statement at page 9, regarding the Sandia study's finding of a significantly higher station blackout frequency for the McGuire plant," supported the relevance of Duke's Level 1 PRA. Tr. at 1093. The Chair also indicated that it is the ASLB's inclination to follow the guidance of CLI-02-17 and proceed with discovery, followed by summary disposition. *Id.* at 1081. Based on the ASLB's statement of its view that the contention embraces the concept of adequacy of Duke's consideration of the values in NUREG/CR-6427, Intervenors conditionally withdrew an amended contention that they had submitted, detailing various aspects in which they consider Duke's revised SAMA analysis to be inadequate to consider the values of NUREG/CR-6427.

Duke then filed this motion for clarification. On August 8, 2002, it also filed a motion for reconsideration of the ASLB's oral instructions in the July 29 telephone conference.

DISCUSSION

Duke's motion for clarification has two parts, which will be addressed in turn.

Request for correction of error

In the first part of its motion, Duke asks the Commission to correct a factual error in CLI-02-17. Duke argues that the Commission mischaracterized NUREG/CR-6427, when it stated that the conclusions of "previous cost-benefit studies" were called into question by the fact that "[t]he Sandia study went on to *find* significantly higher station

blackout frequencies and consequently, higher probabilities of containment failure, particularly for the McGuire station.” Duke Motion at 2, citing CLI-02-17, slip op. at 9 (emphasis in original). According to Duke, the Sandia study used core damage frequencies previously reported by Duke in its IPEs for McGuire, but found that conditional containment failure frequencies were higher than previously thought. Duke Motion at 3. Thus, Duke points out, the Commission was incorrect in asserting that NUREG/CR-6427 found higher station blackout frequencies than had been reported by Duke. *Id.*

Intervenors agree that the Commission’s statement is inaccurate, and would agree to its correction. However, Intervenors believe Duke overstates the case when it argues that the error “could prove pivotal” to the ASLB’s treatment of Consolidated Contention 2. Duke Motion at 3. Duke’s position seems to be that once the Commission corrects its error, it will become clear that the question of the probability of an SBO event is entirely irrelevant to Consolidated Contention 2. But Duke oversimplifies the Sandia study and BREDL’s contention. A key point made by Sandia in NUREG/CR-6427 was that the estimated overall probability of early containment failure for McGuire was 13.9%, higher than previously thought. NUREG/CR-6247 at xviii. Sandia found that this higher probability was “dominated” by two factors: “the relatively high SBO frequency and the relatively weak containment for McGuire.” *Id.* at xix.

The concern expressed in BREDL’s contention is that Duke has not incorporated the “values” in NUREG/CR-6427. As the Commission characterized it, BREDL raised a fair dispute regarding whether the “results” of NUREG/CR-6427 were taken into adequate account by Duke. The “values” and “results” of NUREG/CR-6427 include the

overall containment failure probability of 13.9%. It remains undisputably clear that Duke has *not* incorporated this value into its own SAMA analysis. Rather than using the 13.9% estimate in NUREG/CR-6427, Duke has estimated a total early containment failure frequency of 7%, about half of Sandia's estimate.¹ Duke has provided no details regarding the basis for the change in its Level 1 PRA, and has consistently refused to provide BREDL with full access to the PRA.

As estimated by Duke, the risk of containment failure at McGuire appears to be significantly lower than stated by Sandia. This has an obvious effect on the SAMA analysis and the perception of risk held by the NRC and the general public. Thus, Duke has not utilized the values in NUREG/CR-6427, nor has it supported its departure from the values used in the Sandia study.

Request to clarify ambiguity and interfere with the ASLB

In the second part of its motion for clarification, Duke claims that there is "ambiguity" in CLI-02-17 regarding the scope of the admitted contention. Duke Motion at 8. Duke asks the Commission to "clarify" that "the scope of the admitted contention encompasses only the issue of whether Sandia *containment failure probabilities* should be used in the SAMA analysis." *Id.* (emphasis in original). By this, Duke appears to mean conditional containment failure probabilities. The language of LBP-02-04 and CLI-02-17 does not support this narrow interpretation, however, and thus there is no need for clarification. The "values" in NUREG/CR-6427 do not consist only of conditional containment failure probabilities. They also include overall containment failure

¹ This figure is not reported directly, but can be obtained by dividing Duke's current estimate of early containment failure probability (3.5×10^{-6} per year) by Duke's current estimate of total core damage frequency (4.9×10^{-5} per year). See Duke's January 31, 2002, RAI Response at pages 2 and 3.

probabilities. As the Commission summarized it in CLI-02-17, the “basic question ultimately raised by the contention” is the “possibility that the overall cost-benefit assessment was skewed or incomplete because of a failure to include – or at least acknowledge and discount – the higher event frequencies from the Sandia study.” CLI-02-17, slip op. at 12. Here, Duke skewed the overall assessment of the risk of containment failure by depressing the probability of station blackout, at the same time it was using a higher value for conditional containment failure. While Duke’s analysis may eventually be shown to be legitimate, it has failed to support the analysis by showing the basis for choosing a lower SBO probability than was used in Duke’s earlier IPE and relied on in NUREG/CR-6427. Moreover, to the extent that Duke has manipulated the values of the earlier IPE in its updated PRA, it has failed to show that it has done so using standard methodologies such as uncertainty analysis and peer review.

Duke goes on to ask the Commission to require the ASLB to address the issue of mootness before discovery is completed, and instruct the ASLB regarding exactly what standard will be used for determining mootness. Duke Motion at 8. This suggested intrusion into the workings of the ASLB goes well beyond the scope of a motion for clarification. Duke makes no effort to justify interference by the Commission in the procedural decisions of the ASLB, nor can any be found. The ASLB is well aware of Duke’s position regarding mootness, including the significance of the generic safety issue alluded to at page 6 of Duke’s motion. In fact, it has solicited the views of the parties regarding the legal significance of GSI-189 with respect to this proceeding. *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).

Like any other party in any other administrative proceeding, Duke should be required to bring its requests for relief before the ASLB before seeking Commission review. And when it does go to the Commission, it should be required to satisfy the standard for interlocutory review of ASLB procedural orders – something it has not even attempted to do here.

Conclusion

For the foregoing reasons, the Commission should reject the majority of the requests made in Duke's Motion for Clarification, although Intervenors would not object to the correction of the factual error pointed out by Duke.

Respectfully submitted



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August 12, 2002

CERTIFICATE OF SERVICE

I hereby certify that on August 12, 23002, copies of Blue Ridge Environmental Defense League's and Nuclear Information and Resource Service's Response to Duke Energy Corp.'s Motion for Clarification were served on the following by first-class mail, with additional service by e-mail as indicated below:

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