

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

**RAS 5095**

**DOCKETED 12/18/02**

COMMISSIONERS:

**SERVED 12/18/02**

Richard A. Meserve, Chairman  
Greta Joy Dicus  
Nils J. Diaz  
Edward McGaffigan, Jr.  
Jeffrey S. Merrifield

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In the Matter of )  
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DUKE ENERGY CORPORATION )  
 )  
(McGuire Nuclear Station, Units 1 & 2, )  
Catawba Nuclear Station, Units 1 & 2) )  
\_\_\_\_\_)

Docket Nos. 50-369-LR  
50-370-LR  
50-413-LR  
50-414-LR

**CLI-02-28**

**MEMORANDUM AND ORDER**

The Commission today responds to two separate, although related, items. One is a motion filed by the Duke Energy Corporation (Duke), seeking clarification of a Commission Memorandum and Order issued several months ago, CLI-02-17, 56 NRC \_\_\_\_ (July 23, 2002). The second is a Certified Question by the Licensing Board that seeks guidance from the Commission on specific issues.

In CLI-02-17, the Commission affirmed in part and reversed in part a decision by the Licensing Board that admitted one contention challenging the Severe Accident Mitigation Alternatives (SAMA) analysis provided in Duke's Environmental Reports for the Catawba and McGuire nuclear stations' joint license renewal application.<sup>1</sup> In its motion, Duke requests that the Commission clarify the following two points: (1) "a characterization of the Sandia study in

<sup>1</sup> See LBP-02-04, 55 NRC 49 (2002).

CLI-02-17 that does not appear to be technically accurate“; and (2) “the Commission’s intent regarding the scope of the admitted [contention] and how that scope relates to the issue of mootness previously raised by Duke.”<sup>2</sup>

While the Commission was still considering Duke’s motion, the Licensing Board certified a question to the Commission.<sup>3</sup> Noting that Duke had made essentially similar claims in both its motion for clarification before the Commission and in a motion for reconsideration before the Board,<sup>4</sup> the Board asked whether it should await “clarification from the Commission before proceeding further with regard to the[] areas of dispute between the parties.”<sup>5</sup> The key areas of dispute, the Board specified, were the following questions:

(1) whether the “values” from NUREG/CR-6427 referred to by the Commission in CLI-02-17 include only “conditional containment failure probabilities,” or encompass “overall containment failure probabilities”; and

(2) whether resolution of Contention 2 requires any comparison of Duke’s containment failure probability estimates and those of NUREG/CR-6427, or evaluation of the adequacy of Duke’s SAMA analysis in light of NUREG/CR-6427.<sup>6</sup>

Below we address the issues raised by Duke’s motion for clarification and the Board’s own order requesting Commission guidance. We also offer guidance on the next phase of this litigation.

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<sup>2</sup> Motion for Clarification of CLI-02-17 (Aug. 2, 2002)(“Duke Motion”) at 1-2.

<sup>3</sup> Memorandum and Order (Certifying Question to Commission)(Aug. 28, 2002).

<sup>4</sup> “Motion for Reconsideration” (Aug. 8, 2002).

<sup>5</sup> Memorandum and Order at 1.

<sup>6</sup> Id. at 1-2.

1. Characterization of Sandia Study's Information on Station Blackout Frequency

Duke requests that the Commission clarify the limited scope of actual findings made by NUREG/CR-6427, the Sandia National Laboratories study that lies at the heart of the admitted contention in this proceeding.<sup>7</sup> In particular, Duke takes issue with the phrasing of one sentence in CLI-02-17, which reads as follows: "The Sandia study went on to find significantly higher station blackout frequencies and consequently, higher probabilities of containment failure, particularly for the McGuire station," than previous cost-benefit studies.<sup>8</sup>

Duke is correct that, while the Sandia study did indeed "find" higher probabilities of containment failure, it made no fresh finding on station blackout frequency. On that point, the Sandia study relied on "core damage frequencies previously reported, such as those for the McGuire and Catawba stations in assessments submitted as part of the Individual Plant Examination (IPE) process."<sup>9</sup> The Sandia study, in other words, applied or incorporated long-available, published data on station blackout frequencies, and then on its own found higher conditional containment failure probabilities. Thus, as the NRC staff says, the Sandia study itself "included no new analyses and made no findings regarding core damage frequency" or station blackout.<sup>10</sup> "[I]t simply assumed that core damage would occur at the frequency predicted in each ice condenser licensee's individual plant examination and focused on

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<sup>7</sup> See NUREG/CR-6427, "Assessment of the DCH [Direct Containment Heating] Issue for Plants with Ice Condenser Containments" (April 2000)("Sandia study").

<sup>8</sup> CLI-02-17, 56 NRC at \_\_\_\_, slip op. at 9.

<sup>9</sup> Duke Motion at 3.

<sup>10</sup> NRC Staff's Response to Applicant's Motion for Clarification of Memorandum and Order CLI-02-17 (Aug. 12, 2002)("Staff's Response to Duke Motion") at 6.

containment failure probabilities, which were calculated through a simplified containment event tree similar to that used in a level 2 PRA.”<sup>11</sup> We agree with the staff’s characterization.

2. CLI-02-17 Did Not Rule on the Contention’s Scope

The Licensing Board and the parties have expressed substantial disagreement on the scope of the admitted contention.<sup>12</sup> This disagreement existed well before the Commission issued its decision in CLI-02-17.<sup>13</sup> Now, in briefs filed with the Commission, both Duke and the NRC staff claim that the Licensing Board has misinterpreted CLI-02-17 to broaden the scope of the admitted contention. They are correct.

The Licensing Board apparently believes that in CLI-02-17 we intended to broaden the scope of the admitted contention.<sup>14</sup> The Commission’s decision, however, did not address the contention’s scope; it considered only whether the contention, as reframed by the Board, was admissible. The decision held merely that the petitioners alleged enough to raise a litigable question -- whether Duke’s original SAMA analyses, contained in the Environmental Reports for the McGuire and Catawba stations, “should have incorporated or otherwise acknowledged” the containment failure probability estimates contained in the Sandia study.<sup>15</sup> Simply put, as we saw it, the contention had raised a “question about whether information from the SANDIA study

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<sup>11</sup> Id.

<sup>12</sup> See, e.g., BREDL and NIRS’s Response to Duke Energy Corp.’s Motion for Clarification (Aug. 12, 2002) (“Intervenors’ Response to Duke Motion”) at 3; Transcript of July 29, 2002 Telephone Conference (“July 29 Transcript”) at 1092, 1097, 1107, 1113, 1126.

<sup>13</sup> See, e.g., Transcript of April 29, 2002 Telephone Conference (“April 29 Transcript”) at 873-78, 911 (“there’s a real disagreement here about what the contention means as it was worded and admitted by the Licensing Board”).

<sup>14</sup> See, e.g., July 29 Transcript at 1081-82, 1084, 1101-02, 1106.

<sup>15</sup> See CLI-02-17, 56 NRC at \_\_\_\_, slip op. at 9.

should have been utilized or otherwise addressed in Duke's [original] SAMA analysis."<sup>16</sup>

"Whether the SAMA analysis in fact should have addressed the study was a question for the merits, the Board held," and the Commission agreed.<sup>17</sup>

Notably, after finding the contention admissible, the Commission then pointed out that -- in contrast to the earlier-filed Environmental Reports which were the subject of the original contention -- "Duke has now addressed the Sandia study"<sup>18</sup> in responses to NRC staff Requests for Additional Information (RAIs). Even more significantly, we stressed that "after Duke's appeal was filed, the NRC staff issued draft Supplemental Environmental Impact Statements (SEISs) for McGuire and Catawba that also ... take into account the containment failure probabilities from the SANDIA study."<sup>19</sup> As CLI-02-17 stated, these events (both of which occurred after the contention was filed) "may -- indeed largely appear to -- render moot the contention's [] concern [over] the SAMA analysis's failure to include information from the SANDIA study."<sup>20</sup> Whether the contention is moot, the Commission noted, was a "factual question best addressed by the Licensing Board in the first instance, perhaps in response to a summary disposition motion."<sup>21</sup>

It was the Commission's expectation that the Board would, as its next step, seek to determine whether any aspect of the originally admitted contention remained alive -- i.e., not moot -- in the wake of the draft SEISs. Instead, as the NRC staff describes, "during a July 29,

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<sup>16</sup> Id. at 10.

<sup>17</sup> Id. at 11.

<sup>18</sup> Id. at 13 (emphasis added).

<sup>19</sup> Id. at 13-14.

<sup>20</sup> Id. at 14 (internal quotations omitted).

<sup>21</sup> Id.

2002, prehearing teleconference, the Board repeatedly expressed the view that, in light of CLI-02-17, [the contention] raised questions about which set of CCFPs [conditional containment failure probabilities] were 'better' for use in Duke's SAMA analysis, the plant-specific CCFPs used in Duke's initial SAMA analysis, or those used by the Sandia study."<sup>22</sup> The Board said that it would not yet determine whether the draft SEISs rendered the original contention moot because it had yet to determine which set of values were "better," and thus directed that discovery begin on the contention.<sup>23</sup>

Apparently, the Board understood CLI-02-17 to go well beyond a mere ruling on the threshold admissibility of the petitioners' contention. But that was not our intent. Nothing in CLI-02-17 addressed the scope of the contention, as such. We relied on the Board's own formulation of the contention.<sup>24</sup> It appears that the Board has focused upon language in CLI-02-17 that was intended merely to concur with the Board's reasoning in admitting the contention. The Board misread our language as mandating various additional inquiries that appear now to be unnecessary, given the draft SEISs for Catawba and McGuire.

Contrary to the Board's assumption, our decision in CLI-02-17 did not call for discovery and litigation on which set of containment failure probability estimates, Duke's or Sandia's, was "better." As Duke argues, "determining whether Duke [in its Environmental Report] 'should have' submitted analyses based on the SANDIA containment failure probabilities in the first place is unnecessary. Likewise, determining which analysis of potential SAMA benefits is 'better' [Duke's early analysis submitted in the Environmental Reports or Duke's later analysis

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<sup>22</sup> Staff Response to Duke Motion at 7.

<sup>23</sup> See July 29 Transcript at 1070, 1080-82, 1094-95, 1102, 1105, 1109-11, 1116, 1119, 1130.

<sup>24</sup> See CLI-02-17, 56 NRC at \_\_\_\_, slip op. at 6, 11-12.

which takes into account the Sandia containment failure probability estimates] is unnecessary. Both versions have now been submitted by Duke.”<sup>25</sup> And, most importantly, the staff explicitly has chosen to take into account the Sandia containment failure probability estimates in the draft SEISs.

The Commission thus sees no purpose in returning to the question whether the earlier Environmental Reports should have considered the Sandia estimates, a matter that went to the sufficiency of the admitted contention, to be sure, but that now has been superseded by the draft SEISs’ actual use of Sandia containment failure probabilities. That is why the Commission emphasized that the original contention -- while indeed admissible, as the Board had found -- now “largely appear[ed]” moot. The Board’s current focus, then, should be on the latest SAMA analyses -- those found in the draft SEISs -- not Duke’s original SAMA analyses in the Environmental Reports. If, as appears to be the case, the draft SEISs now acknowledge the relevant Sandia findings, then the original contention is moot.

3. The Scope of the Original Contention Covered Missing “New” Information from the Sandia Study, Not Inadequacies In Using the Information

The intervenors maintain that the original contention is not moot. In their response to Duke’s motion for clarification, they stress that Duke still has not adequately taken into account all of the relevant “values” from the Sandia study:

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 canceled 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

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<sup>25</sup> Duke Motion at 8 (emphasis added)(internal citations omitted).

containment failure was lower than the estimate in NUREG/CR-6427.<sup>26</sup>

The intervenors argue that Duke should apply the higher station blackout frequencies for McGuire and Catawba used in the Sandia study to the SAMA cost-benefit calculations. At bottom, then, the issue is whether the intervenors' original contention encompasses a challenge to the specific station blackout frequency used in Duke's SAMA analyses. The Licensing Board and the parties have requested that the Commission resolve this question on the contention's scope.

Where an issue arises over the scope of an admitted contention, NRC opinions have long referred back to the bases set forth in support of the contention.<sup>27</sup> The Commission therefore has reviewed the claims made in support of the intervenors' original contention. We find that the contention did not challenge the specific station blackout frequency estimates utilized by Duke in the Environmental Reports' SAMA analyses. Nothing in either BREDL or NIRS's original submissions -- later consolidated into one admitted SAMA contention -- can be said to specifically attack, with support, the station blackout frequency used by Duke in its Environmental Reports.

While the original contention alleged that Duke's SAMA analysis was deficient, it neither referenced nor discussed any particular frequencies, calculations, or reasoning found in Duke's SAMA analysis. Instead, the admitted contention wholly focused upon the Sandia study and the emergence of its "new" findings -- findings which were alleged to reveal previously unknown vulnerabilities in ice condenser containments. BREDL, for instance, claimed that

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<sup>26</sup> Intervenors' Response to Duke Motion at 3.

<sup>27</sup> See, e.g., Public Serv. Co. of New Hampshire (Seabrook Station, Units 1 and 2), ALAB-899, 28 NRC 93, 97 (1988), aff'd sub nom Massachusetts v. NRC, 924 F.2d 311 (D.C. Cir.), cert. denied, 502 U.S. 899 (1991).



“[t]he licensee’s SAMA analysis is incomplete because it fails to incorporate new and extensive information regarding ice condenser vulnerabilities.”<sup>28</sup> Similarly, NIRS stressed that “[i]n the past year (2000) new information concerning station blackout and early containment failure has been published,” and that “Duke’s license renewal application fails to mention NUREG/CR-6427, nor [sic] to provide analysis of the findings of this report.”<sup>29</sup> In essence, then, the intervenors’ contention merely alleged that there was new, significant information that Duke should have taken into account or acknowledged when performing its SAMA cost-benefit analyses.

The only new information contained in the Sandia study that is relevant to Duke’s SAMA analysis consists of conditional containment failure probabilities found by the study. As the staff notes, the “Sandia study found significantly higher conditional containment failure probabilities during station blackout (SBO) events for plants with ice condenser containments than had been previously reported.”<sup>30</sup> But as to SBO frequency, the Sandia study revealed no new information and made no new findings. It merely assumed a core damage frequency estimate obtained from earlier, plant-specific, individual plant examinations (IPEs), the results of which were submitted approximately a decade ago.<sup>31</sup> The Sandia study thus incorporated long-available station blackout frequency estimates. It did not assess the accuracy of those estimates. It did not attempt to fine-tune those estimates to reflect the most recent plant-specific improvements at McGuire or Catawba. They were “plugged in” to serve as modeling assumptions.

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<sup>28</sup> See BREDL Submittal of Contentions in the Matter of Renewal of Licenses for Duke Energy Corp. McGuire Nuclear Stations 1 & 2 and Catawba Nuclear Stations 1 & 2 (Nov. 29, 2001)(“BREDL Contentions”) at 38.

<sup>29</sup> Contentions of NIRS (Nov. 29, 2001) at 14-15.

<sup>30</sup> Staff’s Response to Duke Motion at 3.

<sup>31</sup> See Sandia study at 29-31.

Accordingly, no part of the Sandia study is directed toward examining SBO frequency, as such. The study in fact makes clear that the “best way” to assess issues raised in the report “is through detailed and credible Level I and Level II probabilistic analyses, specific to each individual plant,” but that such detailed analyses were “outside of the [report’s] scope.”<sup>32</sup>

If the intervenors sought to challenge the SBO frequency used by Duke in its SAMA analysis, their contention should have made a particularized claim to that effect. But the contention made no attempt to identify, analyze, or otherwise discuss any SBO frequency or related core damage frequency information provided in the SAMA analyses. Nor did it compare any SBO information from the Sandia study to specific SBO-related information in the SAMA analyses. The Board recognized as much in a telephone conference:

[T]he contention does not challenge the core damage frequency calculations that Duke has made. In other words, the contention is solely based on the question of consideration of NUREG/CR-6427. It doesn’t address the question of, have they estimated the core damage frequency correctly?<sup>33</sup>

Moreover, in the Environmental Reports’ SAMA analyses Duke provided reasons for why it was using SBO frequency estimates obtained from Revision 2 of Duke’s McGuire and Catawba Probabilistic Risk Assessments (PRAs). Duke set forth the history of the McGuire and Catawba PRAs and of the IPE process and went on to outline how results from these studies “prompted changes in equipment, plant configuration and enhancements in plant procedures to reduce [plant] vulnerability.”<sup>34</sup> Several of the cited improvements -- including enhancements to the Emergency Diesel Generator System -- go to a reduction in station blackout frequency and

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<sup>32</sup> Sandia study at 6.

<sup>33</sup> April 29 Transcript at 884.

<sup>34</sup> See Attachment K, McGuire Nuclear Station SAMAs Analysis (May 2001) at 3, 4-5, 7; see also Attachment H, Catawba Nuclear Station SAMAs Analysis (May 2001) at 3-7.

core damage frequency, thus seemingly lending support to Duke's use of a revised and lower SBO frequency than that obtained in the IPE.<sup>35</sup> Yet nowhere did the intervenors' contention challenge the reasons -- or even the extent or completeness of the information -- Duke provided for relying upon the lower core damage frequency estimates obtained from the revised PRA. There is no claim, for instance, that Duke's cited improvements would not significantly reduce SBO frequency, or that the information was otherwise inadequate to justify use of the lower frequency estimates from the revised PRA.

Based upon information provided in the Environmental Reports, therefore, the intervenors clearly could have raised a specific claim about SBO frequency, related issues in the McGuire or Catawba core damage frequency profile, or Duke's use of PRA Revision 2. Indeed, they now do make various such claims both in their amended contention, which challenges Duke's responses to staff RAIs, and in their response to Duke's motion for clarification.<sup>36</sup> But these SBO frequency-related arguments are new. They were not part of the original contention. Nonetheless, the intervenors attempt to bring SBO frequency within the original contention by stressing that actual Sandia study "results" include not only conditional containment failure probabilities, but also overall containment failure probabilities.<sup>37</sup> To derive a plant's overall containment failure probability, one takes into account both the conditional containment failure probability and SBO frequency, among other things. The Sandia study thus estimated an overall containment failure probability for McGuire by factoring in both (1) the conditional containment failure probability the study actually found and (2) the IPE-derived

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<sup>35</sup> See, e.g., Attachment K, McGuire Nuclear Station SAMAs Analysis (May 2001) at Table 2-1, "Risk Reduction Measures Implemented at McGuire."

<sup>36</sup> See, e.g., Intervenors' Response to Duke's Motion at 4, 8.

<sup>37</sup> Id. at 6-7.

station blackout frequency estimate the study assumed.<sup>38</sup> Noting that Duke has now redone its SAMA analysis to apply the higher conditional containment failure probabilities found by the study, but has continued to use a lower SBO frequency obtained from a revised PRA, the intervenors insist that the original contention cannot be moot because Duke still has not come up with the same 13.9% overall containment failure probability for McGuire estimated in the Sandia study.

We cannot agree that merely because the Sandia study assumed a particular SBO frequency in reaching other overall estimates, the intervenors' contention must be read to directly challenge the SBO frequency that Duke chose to use, despite the lack of specificity or basis in the contention, despite the particular -- unchallenged -- history or reasoning provided in Duke's SAMA analysis concerning SBO frequency, and despite the fact that the SBO assumption in the Sandia study does not reflect any new finding. A generalized reference to an overall figure in a report does not raise a sufficient issue for an NRC hearing on each and every assumption that in some fashion went into developing that figure. Our contention rules require "reasonably specific factual and legal" allegations at the outset.<sup>39</sup> The intervenors' original contention in this case simply cannot be understood as specifically challenging Duke's SBO frequency figures.<sup>40</sup>

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<sup>38</sup> See Sandia study at 29-30.

<sup>39</sup> Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Units 2 & 3), CLI-01-24, 54 NRC 349, 359 (2001)(citations omitted).

<sup>40</sup> In referring to Sandia's estimated 13.9% overall containment failure probability for McGuire, BREDL quoted the Sandia report's statement that "[t]he [Duke] IPE assessments of early containment failure at McGuire (2%) are significantly lower than our assessments; however we have not investigated the reasons for the difference." See BREDL Contentions at 40 (citing Sandia study at 124). This passage compares the overall containment failure probability estimated by Sandia (13.9%) with that earlier estimated by Duke in its Individual Plant Examination (2%). Significantly, however, the discrepancy or "difference" that this

(continued...)

#### 4. Contentions of Omission

As we have seen, the intervenors' original contention alleged that the SAMA analyses in the Catawba and McGuire ERs omitted addressing the Sandia study. Even though Duke and the NRC staff now have addressed the study, the intervenors insist that their contention is not moot because it involves "not just a matter of Duke looking at the data that's in the NUREG, but actually whether we agree upon the way it was used."<sup>41</sup>

This is incorrect. The intervenors' original contention, by its own terms, challenged Duke's failure to discuss the Sandia study at all. At the time, Duke had yet to address the study. Once Duke redid its SAMA analyses to acknowledge the Sandia study, and certainly once the NRC staff discussed the study in its draft EIS, it was incumbent upon the intervenors to amend their original contention to set forth with specificity any concern over Duke's discussion of the Sandia information. While a contention contesting an applicant's environmental report generally may be viewed as a challenge to the NRC staff's subsequent draft EIS, new claims must be raised in a new or amended contention. Accordingly, where a contention is "superseded by the subsequent issuance of licensing-related documents" --

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<sup>40</sup>(...continued)

statement highlights has nothing to do with station blackout frequency. The station blackout frequency used in calculating both these overall failure probabilities was the same -- both the Sandia and the earlier Duke IPE assessment incorporated the same IPE-derived station blackout frequency. Thus, this highlighted difference between a 13.9% and 2% overall early containment failure probability does not call into question any particular station blackout frequency. Instead, the discrepancy relates to the various different assumptions that went into determining the conditional containment failure probability portion of the overall containment failure probability. The Board underscored a similar point when it noted that "the discrepancies addressed by the NUREG arise after the core has been damaged. In other words, core damage is assumed. And so the likelihood [of core damage], although it enters into some absolute calculations, is not addressed in NUREG/CR-6427 .... What we're discussing is the conditional [containment failure] probability." See April 29 Transcript at 883 (emphasis added).

<sup>41</sup> April 29 Transcript at 873-74.

whether a draft EIS or an applicant's response to a request for additional information -- the contention must be disposed of or modified.<sup>42</sup> The intervenors' previous concern was Duke's failure to acknowledge the Sandia study. Now their concern relates to how Duke and the NRC staff applied the Sandia information in their latest SAMA analyses. This is a new concern based on revised analyses using different containment failure probability estimates than those used in the Environmental Reports. The appropriate vehicle for the intervenors' new challenge was an amended contention.

There is, in short, a difference between contentions that merely allege an "omission" of information and those that challenge substantively and specifically how particular information has been discussed in a license application. Where a contention alleges the omission of particular information or an issue from an application, and the information is later supplied by the applicant or considered by the staff in a draft EIS, the contention is moot.<sup>43</sup> Intervenors must timely file a new or amended contention that addresses the factors in § 2.714(b) in order to raise specific challenges regarding the new information. As the Licensing Board explained in a recent decision in the Private Fuel Storage proceeding:

[A] significant change in the nature of the purported NEPA imperfection, from one focusing on comprehensive information omission to one centered on a deficient analysis of subsequently supplied information, warrants issue modification by the complaining party. Otherwise, absent any new pleading, the other

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<sup>42</sup> See Duke Power Co. (Catawba Nuclear Station, Units 1 & 2), CLI-83-19, 17 NRC 1041, 1050 (1983); see also 10 C.F.R. § 2.714(b)(2)(iii). The Commission has long insisted that intervenors examine available documents and formulate contentions "as early as possible." Catawba, CLI-83-19, 17 NRC at 1050.

<sup>43</sup> See, e.g., Private Fuel Storage (Independent Spent Fuel Storage Installation), LBP-01-26, 54 NRC 199, 207-09 (2001); LBP-01-23, 54 NRC 163, 171-72 (2001); LBP-02-2, 55 NRC 20, 29-30 (2002).

parties would be left to speculate whether the concerns first expressed had been satisfied by the new information.<sup>44</sup>

If we did not require an amended or new contention in “omission” situations, an original contention alleging simply a failure to address a subject could readily be transformed -- without basis or support -- into a broad series of disparate new claims. This approach effectively would circumvent NRC contention-pleading standards and defeat the contention rule’s purposes: (1) providing notice to the opposing party of the issues that will be litigated; (2) ensuring that at least a minimal factual or legal foundation exists for the different claims that have been alleged; and (3) ensuring there exists an actual “genuine dispute” with the applicant on a material issue of law or fact.<sup>45</sup> By contrast, a valid contention challenging how specific substantive information is discussed in an application -- or draft EIS -- must identify “each [such] failure,”<sup>46</sup> setting forth both the applicant’s -- or staff’s -- position and “the petitioner’s opposing view.”<sup>47</sup> The intervenors’ original SAMA contention in this case complained of the Sandia study’s omission, not specific deficiencies in the way the study was used.

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<sup>44</sup> PFS, LBP-02-2, 55 NRC at 30 (emphasis in original)(quotations and citations omitted). In contrast, as the PFS Board explained, a contention “initially framed as a challenge to the substance of an applicant’s ER analysis of particular matters would not necessarily require a late-filed revision or substitution to constitute a litigable issue statement relative to the substance of the Staff’s DEIS (or final environmental impact statement) analysis of the same matter.” PFS, LBP-01-26, 54 NRC at 208.

<sup>45</sup> See Duke Energy Corp. (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 333-35 (1999). A contention’s form may not always be readily apparent, and therefore it may be necessary to examine “the language of the bases” to determine the contention’s scope. See PFS, LBP-01-23, 54 NRC at 171 (citation omitted). Also, conceivably there could be contentions that involve both a claim of omission and some particularized, substantive challenge to a license application.

<sup>46</sup> See Oconee, CLI-99-11, 49 NRC at 336 (quoting 10 C.F.R. § 2.714(b)(2)(iii)).

<sup>47</sup> See Millstone, CLI-01-24, 54 NRC at 358 (quoting Final Rule, Rules of Practice for Domestic Licensing Proceedings -- Procedural Changes in the Hearing Process, 54 Fed. Reg. 33,168, 33,170 (Aug. 11, 1989)).

Eventually, at the Board's prompting, the intervenors filed an amended contention that did raise concerns about Duke's revised SAMA analyses. We recognize that because of ambiguous Board statements made in the course of the proceeding<sup>48</sup> and apparent widespread confusion over the original contention's scope, the intervenors may have had good cause to believe that filing an amended contention was unnecessary. That goes to the timeliness of their amended contention, a determination we leave for the Board on remand. We offer some guidance on the amended contention in the next section of this decision.

Having found that SBO frequency was not adequately raised and supported as an issue in the original contention, and that the original contention itself included no specific challenge to the adequacy of Duke's discussion of the Sandia study, we agree with the NRC staff that the resolution of the originally-admitted "BREDL/NIRS Contention 2 requires no more than a formal finding by the Board" that Duke in its supplemental analyses, or more importantly, the NRC staff in the draft SEISs, "has in fact utilized, incorporated, or addressed the CCFPs [conditional containment failure probabilities] of the Sandia study."<sup>49</sup> We further agree that "this can best be accomplished through a motion for summary disposition, and discovery is not necessary, given the evidence already available."<sup>50</sup>

##### 5. The Intervenors' Amended Contention

Even if the original contention is moot, the intervenors had the opportunity to raise amended or new contentions based upon any new data or conclusions found in the Duke

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<sup>48</sup> For example, the intervenors point to a passage in the Board's decision describing the admitted contention as "whether and to what extent Duke's SAMA analysis should take into account the calculations and values referenced in [the Sandia study]." April 29 Transcript at 875-77 (emphasis added)(referencing LBP-02-04, 55 NRC at 127).

<sup>49</sup> Staff's Response to Duke Motion at 8.

<sup>50</sup> Id.



responses to staff RAIs or the draft SEISs.<sup>51</sup> The Commission's decision in CLI-02-17 recognized that the intervenors did file before the Board an amended contention challenging Duke's responses to RAIs, but stated that "[w]hether the amended contention is timely and otherwise admissible are issues currently before the Board."<sup>52</sup> "A ruling on the amended contentions," as Duke indicates, "would have been one means to get to the core mootness issue: *i.e.*, whether there is some [relevant] aspect of the Sandia study data that has not been incorporated in the revised SAMA analyses."<sup>53</sup> But the Board chose instead to defer determination of mootness pending discovery. Its expansive interpretation of the original contention's scope -- based as we have seen on a misunderstanding of CLI-02-17 -- indeed led the intervenors to withdraw their amended contention altogether.<sup>54</sup> Because the intervenors withdrew their amended contention under the Board's mistaken assumptions about what the Commission held in CLI-02-17, we hereby reinstate the amended contention before the Board.

We leave the timeliness and admissibility of the amended contention to the Board. As guidance to the parties and the Board, however, we offer a few observations.

First, the petitioners submitted their amended contention soon after the draft SEISs had been issued. They mention the draft SEISs and raise a few claims directly about them, but the primary focus of the amended contention seems to be Duke's responses to the staff's RAIs. This may be significant because the NRC staff's analyses in the SEISs, while taking into account Duke's responses, are not identical to Duke's analyses. The SEISs often go a step further, providing additional information, analysis, and reaching some conclusions different from

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<sup>51</sup> See 10 C.F.R. § 2.714(b)(2)(iii).

<sup>52</sup> CLI-02-17, slip op. at 14 n.33.

<sup>53</sup> Duke Motion at 9.

<sup>54</sup> See Transcript at 1118; Intervenors' Response to Duke Motion at 5.

Duke's. Hence, many of the concerns in the amended contention may have been cured by the staff's SAMA analyses, found in the draft SEISs. For example, the intervenors claim that a Duke RAI response failed to justify its conclusion that "return fans are essential in order to ensure the effectiveness of hydrogen igniters."<sup>55</sup> The draft SEISs, however, did not agree with Duke on this point, and instead noted that, "based on technical information, it is not clear that operation of an air-return fan is necessary to provide effective hydrogen control."<sup>56</sup> Indeed, citing the draft SEIS, the intervenors state that they are "in agreement with the NRC" and concur with the draft SEIS discussion of this issue.<sup>57</sup> Thus, the draft SEISs appear to resolve this concern. The Commission sees no point in focusing exclusively on Duke's responses to staff RAIs when the draft SEISs (which already take into account Duke's RAI responses) provide a more recent and often more thorough discussion of relevant issues.<sup>58</sup> In the end, it is the NRC staff that "bears the ultimate burden of demonstrating that environmental issues have been adequately considered."<sup>59</sup>

Second, to be admitted for hearing, the intervenors' amended contention must rest on data or conclusions that "differ significantly" from what was submitted in the Environmental

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<sup>55</sup> BREDL's and NIRS's Amended Contention 2 (May 20, 2002)("Amended Contention") at 17.

<sup>56</sup> See, e.g., Catawba Draft SEIS at 5-27.

<sup>57</sup> Amended Contention at 17.

<sup>58</sup> See, e.g., McGuire Draft SEIS at 5-6, 5-7, 5-10, 5-11, 5-17, 5-27 to 5-30 (outlining staff's reasons behind particular station blackout frequencies assumed for draft Environmental Impact Statement's SAMA cost-benefit analyses, namely, that Sandia used station blackout frequencies obtained from individual plant examinations, but that there are more complete probabilistic risk assessment (PRA) models available).

<sup>59</sup> Louisiana Energy Services (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 89 (1998).

Report.<sup>60</sup> An amended NEPA contention is not an occasion to raise additional arguments that could have been raised previously.<sup>61</sup> Indeed, the Licensing Board in this case repeatedly stressed that the amended contention was to be based only on “any new information not previously available.”<sup>62</sup> In their amended contention, the intervenors begin by insisting that the “only change” they “intend to make to the contention is to provide specific information about the deficiencies in Duke’s discussion of NUREG/CR-6427 [the Sandia study].”<sup>63</sup> Yet the amended contention seemingly attempts to insert numerous discrete new claims that arguably might have been raised earlier, or that have little to do with the Sandia study. Hearing petitioners have an “ironclad obligation to examine the publicly available documentary material pertaining to the facility in question with sufficient care to enable the petitioner to uncover any information that could serve as the foundation for a specific contention.”<sup>64</sup> An intervenor may not freely

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<sup>60</sup> See 10 C.F.R. § 2.714(b)(2)(iii).

<sup>61</sup> See, e.g., Union of Concerned Scientists v. NRC, 920 F.2d 50, 55 (D.C. Cir. 1990) (“we think it unreasonable to suggest that the NRC must disregard its procedural timetable every time a party realizes based on NRC environmental studies that maybe there was something after all to a challenge it either originally opted not to make or which simply did not occur to it at the outset”); Private Fuel Storage (Independent Spent Fuel Storage Installation), LBP-00-27, 52 NRC 216, 223 (2000) (late contention denied where only assertion was that “certain concerns that were not dealt with in the ER have additionally not been dealt with in the DEIS” and no showing of “new or different data or conclusions” in the DEIS); Cleveland Elec. Illuminating Co. (Perry Nuclear Power Plant, Units 1 & 2), LBP-82-79, 16 NRC 1116, 1118 (1982) (no good cause for late filing where draft environmental impact statement contained no new information relevant to contention).

<sup>62</sup> April 29, 2002 Transcript at 904-05; see also Order (May 13, 2002)(unpublished) at 1.

<sup>63</sup> Amended Contention at 3.

<sup>64</sup> See, Final Rule, Rules of Practice for Domestic Licensing Proceedings -- Procedural Changes in the Hearing Process, 54 Fed. Reg. 33,168, 33,170 (Aug. 11, 1989).

“change the focus of an admitted contention at will as litigation progresses, but is bound by the terms of the contention.”<sup>65</sup>

Third, we note that the intervenors’ SAMA contention has triggered disputes over the access to Duke’s probabilistic risk assessments (PRAs), Levels 1, 2, and 3. The intervenors’ request for the PRAs first arose during the course of settlement discussions with Duke.<sup>66</sup> The intervenors claim that they need the PRAs in order to have “sufficient information to evaluate the information that’s been presented in the RAI response,”<sup>67</sup> and that “without access to the PRA[s]” it would be impossible “to evaluate the adequacy of the [SAMA] analysis.”<sup>68</sup> They stress that “[w]hile Duke’s analysis may eventually be shown to be legitimate,” they need the PRAs to “assist in verifying the reasonableness” of Duke’s SAMA cost-benefit analysis.<sup>69</sup>

In response, Duke argues that the record already contains “sufficient information ... on the docket in order to do an independent assessment of the specific calculations and the specific issues” in the contention, and that the intervenors “could have taken the time to access publicly available information and assess it before the original proposed contentions were

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<sup>65</sup> Georgia Power Co. (Vogtle Elec. Generating Plant, Units 1 & 2), CLI-93-16, 38 NRC 25, 42 (1993); see Seabrook, ALAB-899, 28 NRC at 96-97 & n.11 (microbiologically induced corrosion not part of contention that ocean-water cooling system might fail because of accumulation of mollusks and other microbiological organisms). See also Carolina Power & Light Co. (Shearon Harris Nuclear Power Plant), ALAB-843, 24 NRC 200, 208 (1986)(contention did not “deal with the adequacy of testing or test data,” but only whether tests represented actual plant conditions); Carolina Power & Light Co. (Shearon Harris Nuclear Power Plant), ALAB-856, 24 NRC 802, 814-16 (1986)(contention questioned whether electrical equipment met environmental qualifications, but had not alleged occurrence of fraudulent testing).

<sup>66</sup> April 10, 2002 Transcript at 851; April 29, 2002 Transcript at 885. The Board appeared inclined to allow discovery of PRA-related issues. See, e.g., July 29 Transcript at 1079-81, 1089, 1099-1100, 1108-09, 1128-29.

<sup>67</sup> April 29, 2002 Transcript at 873.

<sup>68</sup> Amended Contention at 4.

<sup>69</sup> Intervenors’ Response to Duke Motion at 4, 8.

filed.”<sup>70</sup> Duke further claims that the intervenors’ request “confuses contentions and discovery” and “[i]n effect, the Intervenor want to review the PRA in search of an issue.”<sup>71</sup> The NRC staff agrees with Duke that sufficient information on the PRAs has been available publicly, and that the intervenors never “demonstrated why such information has been inadequate to ensure the reliability of Duke’s PRA.”<sup>72</sup> The staff further stresses that the “absence of Duke’s full PRA from its application has been evident ... since the time the application was filed in June, 2001,” and the intervenors made “no attempt to demonstrate” why their concerns regarding their need to access the PRA could not have been raised at that time.<sup>73</sup>

These inquiries are fact and record-specific, and we therefore leave them for the Board to resolve on remand. In particular, the Board must consider the objections raised by Duke and the staff. The Board should keep in mind that our 1989 contention rule revisions bar “anticipatory” contentions, where petitioners have only “what amounts to generalized suspicions, hoping to substantiate them later,” or “simply desire more time and more ... information to determine [if] they even have a genuine material dispute for litigation.”<sup>74</sup> A petitioner is not permitted “to file a vague, unparticularized contention, followed by an endeavor to flesh it out through discovery.”<sup>75</sup>

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<sup>70</sup> April 10 Transcript at 854; Response of Duke Energy Corp. to Proposed Late-Filed Contentions (June 10, 2002) at 26.

<sup>71</sup> Id. at 22.

<sup>72</sup> NRC Staff’s Answer to Amended Contention (June 10, 2002) at 14-15.

<sup>73</sup> Id. at 15.

<sup>74</sup> Oconee, CLI-99-11, 49 NRC at 337-38.

<sup>75</sup> Duke Power Co. (Catawba Nuclear Station, Units 1 and 2), ALAB-687, 16 NRC 460, 468 (1982), vacated in part on other grounds, CLI-83-19, 17 NRC 1041 (1983); see also Millstone, CLI-01-24, 54 NRC at 363; 54 Fed. Reg. at 33,170.

We conclude with a final point. The intervenors' original contention implied that the SAMA analyses found in Duke's Environmental Reports were deficient because, by not using the higher containment failure probabilities found in the Sandia study, the analyses may have underestimated the benefits of implementing back-up hydrogen control capability during SBO events, and in turn erroneously concluded that no such SAMA was cost-beneficial. But this deficiency, if deficiency it was, seemingly has been cured. The draft SEISs conclude that if the conditional containment failure probabilities from the Sandia study are assumed, then adopting "plant and procedure modifications to enable the existing hydrogen control (igniter) system to be powered from an ac-independent power source in SBO events" *does* "appear[] to be cost-beneficial."<sup>76</sup> Given that the draft SEISs already find that an ac-independent back-up power source appears to be a cost-beneficial SAMA under these assumptions, it is unclear what additional result or remedy would prove meaningful to the intervenors.<sup>77</sup>

### **Conclusion**

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<sup>76</sup> McGuire Draft SEIS at 5-5; see also Catawba Draft SEIS at 5-5.

<sup>77</sup> The SEISs also point out that "this SAMA does not relate to adequately managing the effects of aging during the period of extended operation," and "[t]herefore, it need not be implemented as part of license renewal pursuant to 10 CFR Part 54." See, e.g., Catawba Draft SEIS at 5-29. Nonetheless, the draft SEISs emphasize that maintaining power to the hydrogen igniter system is "sufficiently important for all PWRs [Pressurized Water Reactors] with ice condenser containments," and therefore the "NRC has made the issue a Generic Safety Issue (GSI), GSI-189 -- Susceptibility of Ice Condenser and Mark III Containments to Early Failure from Hydrogen Combustion During a Severe Accident." The "need for plant design and procedural changes will be resolved as part of GSI-189 and addressed [for McGuire and Catawba] and other ice condenser plants as a current operating license issue." See, e.g., McGuire Draft SEIS at 5-29. Thus, the ultimate agency decision on whether to require facilities with ice condenser containments to implement any particular SAMA will fall under a Part 50 current licensing basis review. NEPA "does not mandate the *particular decisions* an agency must reach," only the "process the agency must follow while reaching its decisions." Committee to Save the Rio Hondo v. Lucero, 102 F.3d 445, 448 (10<sup>th</sup> Cir. 1996) (citing Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 350 (1989)).

In sum, CLI-02-17 did not broaden or in any respect redefine the scope of the intervenors' original contention. It did characterize the Sandia study inaccurately, a characterization we clarify above. Issues remaining before the Board, which the Board should resolve prior to discovery, are:

- (1) whether the draft SEISs render the original contention moot;
- (2) whether the intervenors' amended contention raises timely, adequately supported, and otherwise admissible genuine material disputes for litigation; and
- (3) whether there is any basis for the intervenors' demand for access to Duke's PRA analysis.

We remand the case to the Board to make these determinations and to conduct whatever further proceedings may be appropriate.

IT IS SO ORDERED.

For the Commission<sup>78</sup>

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Annette L. Vietti-Cook  
Secretary of the Commission

Dated at Rockville, Maryland,  
this 18<sup>th</sup> day of December 2002.

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<sup>78</sup> Commissioner Dicus was not present for the affirmation of this Order. If she had been present, she would have approved it.

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 COMMISSION MEMORANDUM AND ORDER (CLI-02-28) have been served upon the following persons by deposit in the U.S. mail, first class, or through NRC internal distribution with copies by electronic mail as indicated.

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Docket Nos. 369/370/413/414-LR  
COMMISSION MEMORANDUM AND ORDER  
(CLI-02-28)

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Office of the Secretary of the Commission

Dated at Rockville, Maryland,  
this 18<sup>th</sup> day of December 2002