June 26, 2002

Mr. M. S. Tuckman
Executive Vice President
Nuclear Generation
Duke Energy Corporation
526 South Church St
Charlottte, NC 28202

SUBJECT: CATAWBA NUCLEAR STATION, UNITS 1 AND 2 AND MCGUIRE NUCLEAR STATION, UNITS 1 AND 2 RE: REQUEST FOR ADDITIONAL INFORMATION - APPLICATION FOR CHANGES TO TECHNICAL SPECIFICATIONS (TAC NOS. MB3343, MB3344, MB3222 AND MB3223)

Dear Mr. Tuckman:

The Nuclear Regulatory Commission is reviewing your application dated October 7, 2001, entitled “License Amendment Request applicable to Technical Specifications 5.6.5, Core Operating Limits Report; Revisions to Bases 3.2.1 and 3.2.3; and Revisions to Topical Reports DPC-NE-2009-P, DPC-NF-2010, DPC-NE-2011-P, and DPC-NE-1003" and has identified a need for additional information as identified in the Enclosure. These issues were discussed with your staff on June 6, 2002. Please provide a response to this request within forty-five (45) days of receipt of this letter so that we may complete our review.

Sincerely,

/RA/

Robert E. Martin, Senior Project Manager, Section 1
Project Directorate
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-413, 50-414, 50-369 and 50-370

Enclosure: Request for Additional Information

cc w/encl: See next page

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DATE	06/26/02	06/26/02	06/26/02

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REQUEST FOR ADDITIONAL INFORMATION

LICENSE AMENDMENT REQUEST APPLICABLE TO

TECHNICAL SPECIFICATION 5.6.5, CORE OPERATING LIMITS REPORT,

REVISIONS TO BASES 3.2.1 and 3.2.3

REVISIONS TO TOPICAL REPORTS DPC-NE-2009-P,

DPC-NF-2010, DPC-NE-2011-P, AND DPC-NE-1003

CATAWBA NUCLEAR STATION, UNITS 1 AND 2

MCGUIRE NUCLEAR STATION, UNITS 1 and 2

DUKE ENERGY CORPORATION

Topical Reports Numbered DPC-NE-2009-P Duke Power Company Westinghouse Fuel Transition Report and DPC-NF-2010-A, Duke Power Company McGuire Nuclear Station and Catawba Nuclear Station Nuclear Physics Methodology for Reload Design

1. Please provide a detailed qualitative technical justification for the requested changes to the topical reports (methodologies), DPC-NE-2011 and DPC-NF-2010. (i.e., why are these changes being made?).

2. To expedite the review process, please provide a qualitative and quantitative technical basis for each of the changes in these topical reports.

3. Please provide validation data that bench-marks the results of comparisons between the old and the new models (changes).

4. If the changes to these topical reports and methodologies impact the safe operation of the reactor core, please provide the safety significance (impact) of each of these changes.

5. Please provide the basis for why the proposed changes to the above stated topical reports should be found acceptable.

Topical Report Numbered DPC-NF-2010-A, Duke Power Company McGuire Nuclear Station and Catawba Nuclear Station Nuclear Physics Methodology for Reload Design

1. In the revision history section on page ii, the licensee provides the staff with the reason for the submittal. Since this is a licensing action, please list those Technical Specification(s), Bases, FSAR sections, conformance to regulatory documents, criteria, generic letters, etc. that are impacted by the request for these changes within the licensing framework.

2. Section 4.2.4.2, second paragraph. Please provide clarification of this change and the technical justification for it. Please provide a comparison between the old sentence and the new sentence.

3. In Attachment 7a, "Detailed Listing of the Changes to DPC-NF2010A," it is stated in many places, that "this change is made to avoid difficulties with the literal interpretation of the original description." Please provide clarification of this statement with a supporting example.

4. Section 4.2.4.4, fifth paragraph. Please provide clarification of this change and the technical justification for it. Please provide comparison between the old sentence and the new sentence.

5. Section 8.1, first paragraph. Is the added equation the same as that in the current version of the DPC-NF-2010A topical? If not, please provide technical justification for its use.

6. Section 9.1.5, first paragraph. Please provide clarification of this change and the technical justification for it. Please provide a comparison between the old sentence and the new sentence.

Topical Report Numbered DPC-NE-2011-P-A, Duke Power Company Nuclear Design Methodology Report for Core Operating Limits of Westinghouse Reactors

1. The description of the transient conditions was changed in Tables 1 and 2, of Section 2.5. It is not clear to the staff exactly what was changed. Please clarify.

2. From section 6.1, please explain what is meant by "updated the equation."

3. From section 6.1, please provide further clarification of this statement.

4. Section 6.2, were is UMR listed in section 6.2? Please provide original definition and new definition for comparison.

Topical Report Numbered DPC-NE-1003, Revision 1 McGuire Nuclear Station and Catawba Nuclear Station Rod Swop Methodology Report for Startup Physics Testings, Revision 1

1. Appendix A of topical report DPC-NE-1003, Revision 1, contains two versions of Duke Power Company's rod swap measurement procedure PT/O/A/4150/11A: Attachment 3 (dated June 1986) and Attachment 4 (dated April 1984). There are differences in these two versions of the procedure. For example, in the Attachment 3 version, Steps 12.2.2 and 12.2.3, respectively, specify the insertion of bank 1 until the indicated reactivity is approximately -20 pcm, and the withdrawal of reference bank until the indicated reactivity is approximately +20 pcm; whereas in the Attachment 4 version, the insertion and withdrawal of bank 1 and reference bank, respectively, of steps 12.2.1 and 12.2.2 specify reactivity change of -/+ 10 pcm.

a. Since the Attachment 3 version of procedures is more recent, why is the Attachment 4 version referenced in Revision 1 of the topical report (Reference 2)?

b. Which of these two versions of rod swap measurement procedures will be used for McGuire and Catawba Units?

2. In the Attachment 3 version of rod swap measurement procedures PT/O/A/4150/11A, Step 12.1.3 states that: “Repeat steps 12.2.1 and 12.2.2 until the previously inserted bank is fully withdrawn.“

   Is there a typographic error in the words “steps 12.2.1 and 12.2.2”? Should correct words be “steps 12.1.1 and 12.1.2"?

3. The equation in Section 3, Measurement Procedure, of the topical report for calculating the inferred rod worth of bank x is different from the equation in Step 12.5.3 of the Attachment 3 procedures. The difference appears to be due to the initial height of the reference bank for performing the rod swap measurement of the measured bank.

   Clarify the exact procedure to be used in the rod swap test, and make all necessary corrections in the topical report and the procedures to be consistent.

4. The third sentence in Section 3 of the topical report is revised to read: “All other banks are then exchanged with the reference bank or other test banks at constant boron conditions until the measured bank is fully inserted.” It is stated, in Attachment 9a, “Detailed Listing of Changes to DPC-NE-1003A,” that the third sentence in Section 3 is revised to make the report consistent with current procedures. The “Revision History” in the topical report states that this revision [Revision 1] also reflects a refinement in the rod swap to make use of two test banks.

   a. What are the current procedures? What is the date of the current procedures?

   b. Are the current procedures the same or different from the ones in Attachment 3? The Attachment 3 procedures do not include the exchange of a test bank with the other test bank.

   c. If the current procedures are different from those of Attachment 3 or 4, provide a copy of the procedures, and appropriately reference them in the report.

   d. Is the statement in “Revision History” referring to this revision? Please explain what the statement means.

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