

November 13, 2002

Mr. M. S. Tuckman  
Executive Vice-President  
Nuclear Generation  
Duke Energy Corporation  
P.O. Box 1006 EC07H  
Charlotte, NC 28201-1006

SUBJECT: STATUS OF THE NRC STAFF'S REVIEW OF THE MCGUIRE AND CATAWBA  
LICENSE RENEWAL APPLICATION

Dear Mr. Tuckman:

On August 14, 2002, the staff issued its safety evaluation report (SER) with open items. On October 2, 2002, and October 28, 2002, the staff received your interim and final response, respectively, to the SER open items. Although certain open item responses contained a significant amount of information that is still being reviewed, the staff has identified a number of responses that it considers inadequate to resolve the items. The items are as follows:

Open Item 3.6.1-1, visual inspection of neutron and radiation monitoring instrument cables

- Visual inspection not consistent with staff position on previous application reviews
- Loop calibration tests are routinely performed in accordance with existing technical specification surveillance requirements at McGuire and Catawba
- Instrument circuit calibration tests considered acceptable for monitoring aging of cables during the period of extended operation
- Minimal regulatory burden for loop calibration tests

Open Items 3.5-1 and 3.5-3, aging effects for concrete structures and components (SCs)

- Aging effects for concrete SCs were not specified
- Demonstration that the effects of aging will be adequately managed was not provided
- Requirements of 10 CFR 54.13(a) (requires complete and accurate information) were not met
- The staff cannot complete its review

Open Item 2.3.3.19-4, scoping of manual suppression systems in the turbine building

- The response focused on the main turbine lubricating oil tank
- Response ignored other potential exposure hazards
- Duke has placed total reliance on the three hour fire barrier and 100 feet of space
- Response ignored defense in-depth provided by manual hose stations
- Contrary to the guidance in Appendix A to BTP 9.5-1 and CMEB 9.5-1
- This guidance states in part that "interior manual hose stations should be provided in all buildings, including containment, on all floors"
- Duke implemented this guidance at McGuire and Catawba
- The Statement of Considerations for 10 CFR 50.48 support the staff's position

New Open Item 3.0.3.10.2-1, volumetric examination of small-bore Class-1 pipe welds in susceptible locations

- Response does not specify that small-bore pipe will be sampled for examination
- Risk-informed inservice inspection (ISI) does not ensure that small-bore pipe will be sampled for examination
- Risk-informed ISI was approved only for one interval for McGuire; it was not approved for Catawba
- Response deviates from what had been provided in draft during meetings with the staff with respect to use of volumetric examination
- Staff has consistently required examination of a sample of small-bore pipe, even when risk-informed ISI is proposed.
- Final safety analysis report (FSAR) supplement does not specify a commitment to include a sample of small-bore Class-1 pipe located at susceptible locations for volumetric examination

Open Item 2.3-3, aging management of structural sealant in ventilation system applications

- November 5, 2002, letter from Duke included typographical errors that render the response incoherent
- The corrected information was provided to the staff electronically, but must be submitted officially, under oath or affirmation

New Open Item 3.3.6.2.1-1, aging effects for synthetic rubber expansion joint in condenser circulating water system

- November 5, 2002, letter indicates that the main condenser seals are subject to aging because they are exposed to temperatures above 100 degrees Fahrenheit, and that expansion joints are not subject to aging because they are exposed to temperatures below 100 degrees Fahrenheit
- The staff consider these two temperature environments potentially marginally different and, therefore, finds the basis for Duke's conclusion (that one is subject to aging while the other is not) inadequately supported
- During an October 31, 2002, conference call with the staff, Duke stated that the temperatures to which the expansion joints and main condenser seals were exposed were more significant - 100 versus 200 to 300 degrees Fahrenheit, respectively

Please note that four of these six open items have been discussed with your staff since the early stages of the staff's review of your license renewal application for McGuire and Catawba and are the subject of requests for additional information (RAIs) issued in January 2002. The rubber expansion joint item originated from Duke's response to an RAI pertaining to scoping and screening, and the small-bore Class-1 piping item was identified as an inconsistent program detail during the review and concurrence of the SER with open items.

Additionally, by letter dated October 28, 2002, you notified the staff that certain Class-1 components (steam generator divider plates and pressurizer surge and spray nozzle thermal sleeves) were being removed from the scope of license renewal. This notification was provided as a result of staff questions about an inspection item documented in NRC Inspection Report 50-369/02-06, 50-370/02-06, 50-413/02-06, and 50-414/02-06. The letter indicated only that these components did not meet any of the license renewal scoping criteria, 10 CFR 54.4(a)(1), 10 CFR 54.4(a)(2), or 10 CFR 54.4(a)(3). However, the staff believes that the decision to remove these components from the scope of license renewal involved a significant deviation

from the scoping methodology defined in Chapter 2 of your license renewal application. Furthermore, the staff is concerned that the steam generator divider plate may be required to facilitate natural circulation cooldown during certain design basis event. The staff also notes that Table 2-1, Summary of Subcomponents Requiring Aging Management Review, of WCAP-14574, "License Renewal Evaluation: Aging Management Evaluation for Pressurizers," indicates that aging management review is required for pressurizer spray and surge nozzle thermal sleeves. Therefore, staff RAIs will be necessary to establish reasonable assurance that these components are not required to be within the scope of license renewal.

Lastly, the staff has issued a letter, dated November 5, 2002, requesting Duke to address its treatment of fuse holders by committing to adopt pending resolution of interim staff guidance governing this generic issue.

Unless it promptly receives a letter from you that provides complete and sufficient information to address these items, the NRC staff is unable to complete its review of the license renewal application of McGuire and Catawba and issue its SER by January 6, 2003, in accordance with the established review schedule. To ensure that the staff has sufficient time to review the information provided, the staff requests a response to this letter on or before November 18, 2002. The staff also requests your staff's support, as needed, to reach issue closure by November 27, 2002, so that the SER can be issued by January 6, 2002, in accordance with the review schedule.

If you have any questions regarding this matter, please call Rani Franovich, Project Manager, at 301-415-1868.

Sincerely,

**/RA/**

Pao-Tsin Kuo, Program Director  
License Renewal and Environmental Impacts  
Division of Regulatory Improvement Programs  
Office of Nuclear Reactor Regulation

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

cc: See next page

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Lastly, the staff has issued a letter, dated November 5, 2002, requesting Duke to address its treatment of fuse holders by committing to adopt pending resolution of interim staff guidance governing this generic issue.

Unless it promptly receives a letter from you that provides complete and sufficient information to address these items, the NRC staff is unable to complete its review of the license renewal application of McGuire and Catawba and issue its SER by January 6, 2003, in accordance with the established review schedule. To ensure that the staff has sufficient time to review the information provided, the staff requests a response to this letter on or before November 15, 2002. The staff also requests your staff's support, as needed, to reach issue closure by November 27, 2002, so that the SER can be issued by January 6, 2002, in accordance with the review schedule.

If you have any questions regarding this matter, please call Rani Franovich, Project Manager, at 301-415-1868.

Sincerely,

**/RAI/**

Pao-Tsin Kuo, Program Director  
License Renewal and Environmental Impacts  
Division of Regulatory Improvement Programs  
Office of Nuclear Reactor Regulation

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

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