

March 11, 2004

MEMORANDUM TO: John A. Nakoski, Chief, Section 1
Project Directorate II
Division of Licensing Project Management, NRR

FROM: Leonard N. Olshan, Project Manager, Section 1 */RA/*
Project Directorate II
Division of Licensing Project Management, NRR

SUBJECT: CATAWBA NUCLEAR STATION, UNITS 1 AND 2 - REQUEST FOR
ADDITIONAL INFORMATION INFORMALLY TRANSMITTED ON
MARCH 5, 2004 (TAC NOS. MB7842 AND MB7843)

The attached was telefaxed to Duke Energy Corporation (the licensee) on March 5, 2004. The request for additional information concerns the licensee's amendment request dated February 25, 2003, and the structural integrity performance criteria.

This memorandum and the attachment do not convey or represent an NRC staff position regarding the licensee's amendment request.

Docket Nos. 50-413 and 50-414

Attachment: As stated

CONTACT: Leonard N. Olshan, NRR
301-415-1419

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DATE	3/10/04	3/10/04	3/11/04

OFFICIAL RECORD COPY

Mr. D. M. Jamil
Vice President
Catawba Nuclear Station
Duke Energy Corporation
4800 Concord Road
York, South Carolina 29745

SUBJECT: CATAWBA NUCLEAR STATION, UNITS 1 AND 2 - REQUEST FOR
ADDITIONAL INFORMATION CONCERNING STEAM GENERATOR TUBE
INTEGRITY CRITERIA (TAC NOS. MB7842 AND MB7843)

Dear Mr. Jamil:

Enclosed is a request for additional information (RAI) concerning the structural integrity performance criteria for Catawba Nuclear Station, Units 1 and 2. This RAI was discussed with Mr. Larry Rudy of your staff.

Attachment

REQUEST FOR ADDITIONAL INFORMATION

Background:

By letter dated February 25, 2003, as revised by letters dated June 9, 2003 and July 30, 2003, Duke Energy Corporation (the licensee) submitted a technical specification (TS) amendment request for Catawba Nuclear Station, Units 1 and 2, concerning the maintaining of steam generator (SG) tube integrity. The July 30, 2003, letter included a revised proposal for the structural integrity performance criteria (SIPC) that was intended to address the influence of non-pressure related loads on tube burst during design basis accidents as follows:

All inservice steam generator tubes shall retain structural integrity over the full range of normal operating conditions (including startup, operation in the power range, hot standby, cooldown, and all anticipated transients included in the design specification) and design basis accidents. This includes maintaining a safety factor of 3.0 against burst under normal steady state full power operation primary-to-secondary pressure differential and a safety factor of 1.4 against burst applied to design basis accident primary to secondary pressure differentials. Apart from the above requirements, additional loading conditions associated with the design basis accidents, or combination of accidents in accordance with the design and licensing basis, shall also be evaluated to determine if the associated loads contribute significantly to burst. In the assessment of tube integrity, those loads that do significantly affect burst shall be determined and assessed in combination with the loads due to primary to secondary pressure differential using safety factors that are consistent with the licensing basis design criteria.

By letter dated September 17, 2003, which was revised by letter dated October 10, 2003, the NRC staff issued a Request for Additional Information (RAI) concerning how the portion of the SIPC relating to non-pressure related loads would actually be implemented.

During a meeting with the NRC staff on January 21, 2004, the Nuclear Energy Institute (NEI) described an industry program that was underway to develop information needed to respond to the RAI which would include new industry guidelines for assessing the influence of non-pressure related loads on burst pressure during design basis accidents. NEI expects to provide this information and to resubmit the necessary versions of the Generic License Change Package (GLCP) by October 2004. The licensee for Catawba expects to submit a revised amendment request at that time.

In the meantime, the NRC staff believes there may be an adequate technical basis to proceed with review and approval of the current Catawba amendment package on an interim basis pending completion of the aforementioned NEI effort. This interim approach would be predicated on the licensee submitting of each of the following:

Requested Information:

1. Provide an assessment demonstrating that stress corrosion cracking, particularly circumferential cracking, is not expected to occur over the current and next inspection cycle. Absent any significant potential for cracking during this time period, explain why

any non-pressure related loads would not be expected to influence burst pressures during design basis accidents.

2. Propose a license condition that commits to submit any necessary revisions to the interim technical specifications within two months following completion of the NEI program described during the January 21, 2004, meeting. Should the NEI program not be completed by December 31, 2004, the licensee shall submit an update to the assessment in item 1 within 60 days of each inspection performed in December 2004 or thereafter until the NEI program is completed.