



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

April 27, 1995

Mr. J. W. Hampton
Vice President, Oconee Site
Duke Power Company
P. O. Box 1439
Seneca, SC 29679

SUBJECT: FATIGUE ANALYSES FOR REACTOR COOLANT PRESSURE BOUNDARY ATTACHMENT
PIPING (TAC NOS. M90156, M90157, AND M90158)

Dear Mr. Hampton:

During a visit to the Oconee plant on March 8 and 9, 1994, the NRC staff identified an apparent noncompliance with a licensing basis requirement. Specifically, the Oconee Final Safety Analysis Report (FSAR) states that the reactor coolant pressure boundary piping including the attachment piping to the first isolation valve, is required to be designed to USAS B31.7, Class I standards. However, the staff identified that the reactor coolant loop attached piping was designed to USAS B31.7, Class II standards. Since USAS B31.7, Class II requirements refer to the design criteria from the USAS B31.1 piping code, the reactor coolant system attached piping did not have fatigue analyses. In an August 30, 1994 letter, the staff requested that you provide a response to the apparent noncompliance.

You provided the requested response in a letter dated October 3, 1994. You concluded that a noncompliance does not exist based on 1) applicable codes and standards at the time Oconee's construction permit was granted, and 2) excerpts from the Oconee FSAR.

With respect to the first item, the language of 10 CFR 50.55a in effect at the time the operating license was issued, specifies applicable codes depending on the date when the piping or fitting was ordered. Insofar as we could determine, the FSAR was silent concerning the date of ordering. Your response did not discuss the dates of order of the actual piping of concern, but did identify the construction permit date. We note that USAS B31.7 was not in effect when the Oconee construction permit was granted on November 6, 1967.

With respect to the second item, you referred to the following wording contained in FSAR Section 3.2.2.2, "Piping classes A through C meet the intent of USAS B31.7 Nuclear Piping Code (February 1968) and Addenda (June 1968) with the exception of those portions of the code which lack adequate definition for complete application." This statement seems to imply that portions of USAS B31.7 contained insufficient detail for application.

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However, the fatigue requirements for Class I systems were well defined in USAS B31.7 and those provisions were used to analyze the main loop. Also, Section 3.2.2.1 of the Oconee FSAR contains a definition of a USAS B31.7, Class I system. The definition contains the following statement, "The class includes connecting piping out to and including the first isolation valve." On the basis of this statement, we conclude that a nonconformance with the FSAR criteria does exist at Oconee.

As stated above, we conclude that the reactor coolant system attached piping systems out to the first isolation valve that have not been analyzed to the USAS B31.7 Class I criteria constitute a nonconformance with the FSAR criteria. Therefore, Duke Power Company should perform an evaluation of these systems to demonstrate compliance with the FSAR criteria. You are requested to provide a schedule for the performance of these analyses or additional justification for not performing such analyses within 60 days of the date of this letter. If you have questions regarding this matter, contact me at (301) 415-1495.

This requirement affects nine or fewer respondents, and therefore, it is not subject to the Office of Management and Budget review under P.L. 96-511.

Sincerely,

Original signed by:

L. A. Wiens, Senior Project Manager
Project Directorate II-2
Division of Reactor Projects-I/II
Office of Nuclear Reactor Regulation

Docket Nos. 50-269, 50-270 and 50-287

cc: See next page

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