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DUKE POWER

August 8, 1996

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555-0001

Subject: Duke Power Company
Catawba Nuclear Station, Units 1
Docket Nos. 50-413, 50-414

Revised request for approval to use ASME Code Case N-480 for evaluation of pipe wall thinning.

RE: Letter to US NRC dated August 5, 1996 from Duke Power Company, Catawba Nuclear Station, signed by W. R. McCollum, Jr.

Pursuant to 10 CFR 50.55a (a) (3) (i), Duke Power Company requests the use of an alternative to the 1974 edition of ASME Boiler and Pressure Vessel Code, Section III, Subsection NC-3600 for Catawba Unit 1. Code of Federal Regulations, 10 CFR 50.55a (a) (3) (i), allows for the approval of the use of alternatives provided an acceptable level of quality and safety are demonstrated.

Specifically, Duke Power requests approval to use the evaluation and analysis provisions in section 3600 of ASME Code Case N-480, Examination Requirements for Pipe Wall Thinning Due to Single Phase Erosion and Corrosion, Section XI, Division 1.

This Code Case allows for the evaluation and analysis of localized pipe wall thinning and establishes acceptable limits under which the pipe may remain in service. The ASME Code Committee has determined, by approval of ASME Code Case N-480, that the analytical evaluation of Class 1, 2, and 3 carbon and low alloy steel piping susceptible to wall thinning as a result of single phase erosion-corrosion phenomena, provides an acceptable level of quality and safety when the results of the analysis are within the acceptable limits set by N-480.

Catawba intends to apply the allowances of of N-480, section 3600 to two sections of feedwater piping. These are two 18" sections in two loops of the main feedwater piping system. The nominal wall thickness is 0.939". The section in loop "A" is just down stream of check valve 1CF31 and in loop "B" the section is down stream of check valve 1CF49.

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The minimum allowed local wall thickness for loop "A" as determined by N-480 is 0.689". The projected minimum wall thickness at 1EOC10 is 0.755".

The minimum allowed local wall thickness for loop "C" as determined by N-480 is 0.689". The projected minimum wall thickness at 1EOC10 is 0.762".

The projected thickness provides a large margin (loop "A" 0.066" and loop "B" 0.073") to the acceptable limits of N-480.

By invoking N-480 to evaluate loops "A" (1CF31) and "C" (1CF49), their replacement would not be required until 1EOC10.

Catawba believes that the application of the evaluation and analysis provisions of Code Case N-480, section 3600 to this feedwater piping provide an acceptable level of quality and safety for continued operation under all design basis conditions.

Catawba requests review and approval by August 21, 1996 in order to avoid impacting the scheduled startup of unit 1.

Should there be any questions concerning this request, please call D. Tower at (803) 831-3419.

Very truly yours,

William R. McCollum, Jr.
Vice President
Catawba Nuclear Station

xc:

S.D. Ebneter, Regional Administrator
Region II

R.J. Freudenberger, Senior Resident Inspector
Catawba Nuclear Station

P.S. Tam, Senior Project Manager
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