



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555

September 23, 1992

Docket No. 50-413

Mr. M. S. Tuckman
Vice President, Catawba Site
Duke Power Company
4800 Concord Road
York, South Carolina 29745-9635

Dear Mr. Tuckman:

SUBJECT: TEMPORARY WAIVER OF COMPLIANCE FOR CATAWBA UNIT 1

This letter acknowledges your letter dated September 21, 1992, requesting a temporary waiver of compliance from Catawba Nuclear Station Unit 1 Technical Specification (TS) 3/4.4.5, "Steam Generators," to allow operation in MODES 3 and 4 until final review is completed of an application for amendment that would augment the steam generator (SG) repair criteria to specifically provide for the inspection of steam generator tubes exhibiting indications of outer diameter stress corrosion cracking (ODSCC) in the tube support plate (TSP) region. Catawba Unit 1 TS 3/4.4.5 requires the SGs be operable in MODES 1, 2, 3, and 4. The application to amend TS 3/4.4.5 was submitted on August 24, 1992, and was supplemented on September 2, 4, and 17, 1992.

Steam generator tube integrity is ensured by periodic inservice inspections as detailed in the Catawba TSs. The current requirement of the Catawba Unit 1 TS is that tubes exhibiting degradation in excess of 40% through-wall (TW) be repaired. The methodology used to determine the repair criteria is outlined in Regulatory Guide (RG) 1.121, "Basis for Plugging Degraded Steam Generator Tubes." The criteria in RG 1.121 are designed to ensure adequate tube integrity throughout an operating cycle by accounting for degradation growth and non-destructive examination (NDE) uncertainty.

The application to amend the TS proposes to use a voltage-based plugging criteria in lieu of the current 40% TW depth requirement only for those tubes exhibiting axially oriented ODSCC with minor intergranular attack (IGA) involvement that is confined within the TSP area of a population of tubes where tube deformation is not expected due to combined loadings from a LOCA (loss of coolant accident) and SSE (safe shutdown earthquake).

We have reviewed the Catawba Unit 1 SG tubing eddy current inspection program and tubing repair criteria. The program is consistent with current industry practice in identifying SG tubing degradation. The program included a 100% bobbin coil inspection of all the TSP intersections in each of the SGs with selected supplemental rotating pancake coil (RPC) inspections. The inspection program continues to require the plugging of indications that exceeded 40% TW degradation for tubes that exhibited degradation that was not axially oriented ODSCC at the TSPs. For tubes that exhibited axially oriented ODSCC, you have repaired tubes above the 1.0 volt criterion that were confirmed to be crack-like by RPC inspection and you have repaired all tubes above a 2.5 volt

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Mr. M. S. Tuckman
Duke Power Company

Catawba Nuclear Station

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September 23, 1992

indication regardless of RPC confirmation. The staff believes that the inspection program and repair criteria were adequate in identifying and repairing SG tubing that did not meet the structural margins contained in RG 1.121. The staff concludes, based on the assessment of the growth rate and NDE measurement uncertainty presented in your submittals noted above, that operation in MODES 3 and 4 in the short interval until the amendment review is complete would not result in the SG tubing degrading below the structural integrity criteria contained in RG 1.121. Therefore, the integrity of the SGs is acceptable for operation in MODES 3 and 4.

This temporary waiver of compliance will be in effect until the NRC staff completes its action on the TS amendment request.

Sincerely,

ORIGINAL SIGNED BY:

Gus C. Lainas, Assistant Director
for Region II Reactors
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

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