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DUKE POWER

January 24, 1990

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

Subject: Oconee Nuclear Station, Docket Nos. 50-269, 270, and 287
McGuire Nuclear Station, Docket Nos. 50-369 and 370
Catawba Nuclear Station, Docket Nos. 50-413 and 414

Request For Approval To Use Alternative to Requirements of
10 CFR 55a, Codes and Standards

Gentlemen:

By letter dated November 7, 1989 B&W Nuclear Technologies requested NRC generic approval of the nickel base Alloy 690, ASTM designation SB-166 (UNS N06690) in the fabrication of steam generator plugs. At that time, B&W had also requested ASME approval for the application of Alloy 690, Specification SB-166, SB-167, SB-168, and SB-564 material for Section III repairs. Since the appropriate ASME Code Case had not received final ASME approval, the NRC could not generically approve use of the Alloy 690 material. It is our understanding, based on discussions with ASME representatives, that an appropriate Code Case (N-474-1) concerning this material use will be considered for final ASME approval in February 1990. Following ASME approval, we had planned to submit a request to use this Code Case at all of our nuclear stations.

However, pending ASME approval of the Code Case for Alloy 690, we request approval for use of the Alloy 690 plugs pursuant to 10 CFR 50.55a (a)(3), as an alternate to the requirements of 10 CFR 50.55a, Codes and Standards for our Oconee, McGuire, and Catawba stations. McGuire Unit 1 is currently in a refueling outage, Catawba Unit 1 is scheduled to begin a refueling outage January 26, 1990, and Oconee Unit 1 is scheduled to begin a refueling outage on April 26, 1990. All stations plan to perform steam generator plug inspections and plug removal in accordance with B&W recommendations. The request to use the Alloy 690 plugs in steam generator tubes to be plugged, and as replacements for removed Alloy 600 plugs, is based on our plans to eventually remove all Alloy 600 plugs on these units. If we do not receive approval for use of the Alloy 690 plugs, we will be required to expand our future steam generator plug inspection program to include plugs installed during these currently scheduled outages, and expand the scope of our plug removal and replacement program.

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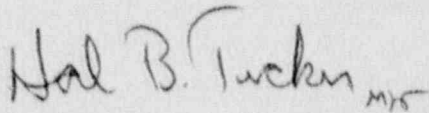
These steps can be avoided by NRC approval of the Alloy 690 plugs, thereby eliminating the need for unnecessary manpower and resource expenditure, and would be in keeping with the ALARA philosophy by preventing an unneeded increase in steam generator related personnel exposure.

Additionally, based on our experience with Alloy 600 plugs, we believe that the Alloy 690 plug is the correct choice of material for steam generator plugging to avert potential plug cracking concerns. Based on the qualities of the Alloy 690 plug material we believe it will provide an equivalent level of protection against a plug top release event, and will provide enhanced protection against PWSCC.

Based on our current schedule to begin tube plugging, (Catawba Unit 1 on February 26, 1990, McGuire Unit 1 on April 1, 1990, and Oconee Unit 1 on May 18, 1990), we request NRC approve our use of the Alloy 690 plug material prior to February 26, 1990.

If there are any questions concerning this request, please contact Steve LeRoy at 373-6233.

Very truly yours,



Hal B. Tucker

SEL511

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xc: Mr. P.K. Van Doorn
NRC Senior Resident Inspector
McGuire Nuclear Station

Mr. W.T. Orders
NRC Senior Resident Inspector
Catawba Nuclear Station

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