UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA STREET, N.W., SUITE 2900
ATLANTA, GEORGIA 30323-0199

January 15, 1997

MEMORANDUM TO: Herbert Berkow, Director
Project Directorate II-2
Division of Reactor Projects I/II
Office of Nuclear Reactor Regulation

FROM: Jon R. Johnson, Director
Division of Reactor Projects

SUBJECT: TASK INTERFACE AGREEMENT (TIA 97-02) McGUIRE ENVIRONMENTAL QUALIFICATION OF SAFETY RELATED GRINELL HYDRAULIC PIPE SUPPORTS IN CONTAINMENT

In August 1996, McGuire purchased Grinell hydraulic pipe supports (snubbers) for use in the Steam Generator Replacement Project. Subsequently, the vendor informed the licensee that the snubbers did not meet the purchase specifications for environmental conditions. Specifically, the specifications for temperature, 350°F, and radiation, 2 X 10E8 Rads, were not met. The temperature specification was a concern because the anticipated containment temperature following a Main Steam Line Break (MSLB) reached approximately 328°F. The vendor stated that the snubber poly-carbonate reservoir would significantly degrade above 250°F. This was supported by a December 1980, test conducted by the licensee. This design condition applied to approximately 150 presently installed Grinell snubbers on safety related systems including Reactor Coolant, Chemical & Volume Control, Safety Injection, and Component Cooling.

The Grinell snubber design appeared to conflict with 10 CFR 50, Appendix A, General Design Criteria Four (GDC 4) which required that structures, systems and components important to safety be designed to accommodate the effects of, and to be compatible with, the environmental conditions associated with normal operation, testing and postulated accident conditions. Based on the vendor information and the licensee's test, the snubbers can not be assured of performing their design restraint function after exposure to temperatures above 285°F, which was anticipated in the MSLB event. It was unclear if the design or licensing basis required the snubbers to be operable after a design pipe rupture event MSLB or if all potential dynamic loads following a MSLB shutdown had been evaluated.

The operability evaluation in the licensee's Problem Investigation report (PIP) 0-M96-2408 (attachment), which documented this issue, concluded that the design of the snubbers was acceptable and that there was no operability concern with

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the snubbers or associated piping. The evaluation stated that following the MSLB, the design load case is over and the snubbers are no longer required to be operable. That is, the snubbers are no longer components important to safety. The licensee indicated that no dynamic piping loads were anticipated following the MSLB. Although actuation of a RCS Power Operated Relief Valve would induce a dynamic load, this actuation was not expected after a MSLB.

We propose the following question regarding this issue: Does the Grinell snubber design meet, or is it required to meet GDC 4?

NOTE: This condition also applies to the Oconee Nuclear Station.

This issue was identified as an Unresolved Item (URI) pending further NRC review in NRC Report Nos.: 50-369,370/96-11.

This request was discussed between R. Moore of Region II and V. Nerses of the NRR staff December 11, 1996. If you have any questions concerning this request contact R. Moore (404) 331-0337 or C. Casto (404) 331-4182.

Docket Nos.: 50-369, 50-370,
License Nos.: NPF-9, NPF-17,

Attachment: As stated

cc w/att: V. Nerses, NRR
R. Cooper, RI
J. Caldwell, RIII
J. Dyer, RIV
J. Barnes, RII