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June 24, 1985

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Attention: Ms. E. G. Adensam, Chief
Licensing Branch No. 4

Re: Catawba Nuclear Station
Docket Nos. 50-413 and 50-414

Dear Mr. Denton:

On March 13-16, 1984, the NRC conducted a Seismic Qualification Review Team (SQRT) audit at Catawba. During this audit, it was noted that some of the Westinghouse reactor protection system cabinets were mounted with Duke supplied electrical isolation systems. Westinghouse seismically qualified these cabinets without any electrical isolation. Duke presented a calculation to the NRC to show that the Duke electrical isolation system did not affect the Westinghouse seismic qualification of the cabinets. That is, the cabinet seismic response to the components within the cabinet was essentially the same with and without the seismic isolation. After the NRC review and meetings with the NRC and its technical representative from Brookhaven National Laboratory, Duke was required to perform a seismic test to substantiate the seismic calculation (License Condition 19, FOL NPF-35).

In order to resolve this issue a triaxial random multifrequency seismic test was performed at Wyle Laboratory, Huntsville, Alabama, to an enclosure which was modified and dummy weighted to simulate the Westinghouse Solid State Protection System cabinet. Three (3) mounting configurations were tested. These were:

1. Mounting System A - Duplicates the original Westinghouse seismic qualification mounting with no electrical isolation.

2. Mounting System B - Duplicates the existing Catawba electrical isolation mounting system with Glastic sheets to electrically isolate the mounting bolts.

3. Mounting System C - Alternate electrical isolation system with Glastic sheets to electrically isolate the cabinet and Glastic washer and fiberglass sleeve to electrically isolate the mounting bolts.

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The results of the Wyle Laboratory seismic test program confirm the following:

1. All three (3) mounting systems A, B, C are seismically qualified to withstand the SSE floor response spectra at the cabinet locations.

2. There is no significant difference in the enclosure's seismic response when using mounting systems A, B, or C.

The conclusion of this program is that:

1. The original Duke calculation showing that the Duke electrical system is (a) seismically adequate, and (b) has little effect on cabinet seismicity is substantiated, and

2. The existing Mounting System B and alternate Mounting System C are seismically qualified and adequate for use as electrical isolation system for cabinets installed at the Catawba Nuclear Station.

The test report and documentation are on file which substantiates our conclusions. This response completes Duke Power Company's actions on License Condition 19 and the item is considered closed.

Very truly yours,

H.B. Tucker 1/30

Hal B. Tucker

ROS:slb

cc: Dr. J. Nelson Grace, Regional Administrator
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NRC Resident Inspector
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