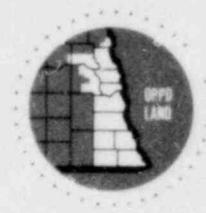


1EB 79-01 B



# Omaha Public Power District

1623 HARNEY ■ OMAHA, NEBRASKA 68102 ■ TELEPHONE 536-4000 AREA CODE 402

June 30, 1981

Mr. K. V. Seyfrit, Director  
U. S. Nuclear Regulatory Commission  
Office of Inspection and Enforcement  
Region IV  
611 Ryan Plaza Drive, Suite 1000  
Arlington, Texas 76011



Reference: Docket No. 50-285

Dear Mr. Seyfrit:

Omaha Public Power District's letter to the Commission dated June 15, 1981, included a copy of the test specification to be used to environmentally qualify the Conax electrical penetration canisters used at the Fort Calhoun Station. In section 5.1.1 of that test specification, a typographical error was found; the leakage rate allowed should be  $1.5 \times 10^{-6}$  standard CC of helium per second, not  $1.5 \times 10^{+6}$ . Accordingly, the attached corrected sheet should be inserted in the test specification in place of the existing sheet.

Sincerely,

*W.C. Jones*  
W. C. Jones  
Division Manager  
Production Operations

WCJ/KJM/TLP:jmm

Attachment

cc: U. S. Nuclear Regulatory Commission  
Office of Inspection and Enforcement  
Washington, D.C. 20555

LeBoeuf, Lamb, Leiby & MacRae  
1333 New Hampshire Avenue, N.W.  
Washington, D.C. 20036

IEH  
5/11

## 5.0 TEST SPECIFICATIONS (Continued)

- 5.1.1 Leakage Pressure Test - The leakage rate of a penetration canister assembly shall not exceed  $1.5 \times 10^{-6}$  standard CC of helium per second when tested at 69 psig for a period of 10 minutes. The leakage to be measured is out of the test canister past the teflon seal.
- 5.1.2 Continuity Test - Each conductor of each feedthrough shall be verified for continuity.
- 5.1.3 Insulation Resistance Test - The insulation resistance of each conductor to the other conductors and sheath shall be measured at 500 VDC. The minimum insulation resistance shall be  $10^4$  megohms.
- 5.1.4 Voltage Withstand Test - Each feedthrough assembly shall be subjected to a voltage withstand test between each conductor and all other conductors and sheath connected together of 2,200 V 60 HZ for not less than one minute.
- 5.1.5 Aging - The sub-components of the penetrators shall be aged according to Table 1 attached. The aging time shall be 100 hours at 150°C or 1548 hours at 150°C.
- 5.1.5a Seismic - Seismic testing of the electrical penetrations shall be done in accordance with IEEE-344 1975 and Regulatory Guide 1.100. Penetration canisters are rigidly mounted in the containment with the sub-assemblies mounted in the canisters as shown in drawing 2325-7684 attached. During a seismic event the motion experienced by the penetrations will be the same as the structure Figures XB 545 S-38 and S-39 showing the structure accelerations. For purposes of testing, acceleration at the 1050'-0" elevation shall be used. A 1.5 multiplication factor shall be used for the test accelerations. The test shall consist of 5 OBE and the followed by 1 DBE events. Step 5.1.1, 5.1.2, 5.1.3, and 5.1.4 shall be completed following the seismic testing. From Figures 1 and 2 attached, the natural frequencies are 3 hertz horizontal and 9 hertz vertical. The absolute containment vertical acceleration is given in Figure XB545S-38 and S-39 through the entire spectrum.
- 5.1.6 Radiation - Penetrations are to be irradiated to  $2 \times 10^7$ R total integrated gamma dose. Repeat 5.1.1, 5.1.2, and 5.1.4 each  $2 \times 10^6$ R increment.
- 5.1.7 Design Basis Accident - The assemblies shall be subjected to the following accident conditions, as outlined in the attached test profile.

305 °F  
74 psig  
1900 ppm boron chemical spray  
buffered with sodium hydroxide for  
a pH of 9.0 at 0.6 GPM per square foot