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Date: Mon, Mar 13, 2000 5:41 PM
Subject: H. B. Robinson Steam Electric Plant Unit No. 2

Mr. Ram Subbaratnam,

The last paragraph of page 17 to Attachment II of Carolina Power & Light Company's May 27, 1999 submittal states the following,

"The new accident pressure profile is also generally bounded by the pressure qualification profile. Equipment qualification data packages were evaluated for cases that were not enveloped by the qualification profile to demonstrate that the equipment are qualified to the new accident pressure profile."

Each statement of fact in the submittal has been verified true and validated against supporting documentation. The NRC contractor who visited the site in August 1999, was provided for review the supporting documentation files. In the case of the above statement, the statement is validated by an approve Engineering Service Request (ESR) 99-00106 described as follows.

ESR 99-00106 demonstrated the environmental qualification (EQ) of components inside containment to the new Main Steam Line Break (MSLB) and LOCA EQ curve (Figure 5). The new EQ profile resulted in transition to lower pressures later than in the present EQ profile. The area of interest on the new EQ curve is from approximately 1.15 days to 11.5 days after the accident where containment pressure is above the current EQ pressure envelope of 5 psig for this duration as shown in Figure 3.11.1-2 of the UFSAR.

There are five tests performed for EQ components where the qualification testing does not entirely envelop the new accident profile. These five cases are discussed specifically based on the identified equipment as summarized below:

EQDP 3.0, Rockbestos Firewall III Cable

During the period from 1.15 to 11.5 days, the predicted accident pressure exceeds the test pressure by a maximum of 2 psi. This difference is accommodated by the difference between the accident and test pressures at the time containment spray is actuated early in the accident. At this time in the accident sequence the test pressure exceeds the predicted accident pressure by at least 11 psi. Thus the qualification test subjected the equipment to a more severe pressure at a time when the significant environmental stressors were present. On this basis it is concluded that the test results continue to demonstrate that the subject equipment remains environmentally qualified.

EQDP 3.1, Rockbestos Coaxial Cable

During the period from 1.15 to 11.5 days, the predicted accident pressure exceeds the test pressure by a maximum of 1 psi. This difference is accommodated by the difference between the accident and test pressures at the time containment spray is actuated early in the accident. At this time

in the accident sequence the test pressure exceeds the predicted accident pressure by at least 10 psi. Thus the qualification test subjected the equipment to a more severe pressure at a time when the significant environmental stressors were present. On this basis it is concluded that the test results continue to demonstrate that the subject equipment remains environmentally qualified.

EQDP 4.1, Rosemount 1154 Pressure Transmitters

During the period from 1.15 to 11.5 days, the predicted accident pressure exceeds the test pressure by a maximum of 2 psi. This difference is accommodated by the difference between the accident and test pressures at the time containment spray is actuated early in the accident. At this time in the accident sequence the test pressure exceeds the predicted accident pressure by at least 22 psi. Thus the qualification test subjected the equipment to a more severe pressure at a time when the significant environmental stressors were present. On this basis it is concluded that the test results continue to demonstrate that the subject equipment remains environmentally qualified.

EQDP 18.1, Westinghouse Reference Junction Boxes

The Reference Junction Boxes were subjected to a maximum pressure of 78 psig for approximately six hours. Additionally, the qualification test pressure exceeds the new requirements for greater than 300 hours. The maximum degradation caused by pressure would have occurred at the higher pressures. Therefore the 5 psig pressure for 29 days (696 hours) is not sufficient to cause extensive degradation to this box. Based on these considerations, the Reference Junction Boxes are qualified for the accident and post accident phases which include the new pressure profile.

EQDP 36.0, Boston Insulated Wire

The qualification test profile exceeds the new RNP accident pressure requirements for the first 4 days of the test. After four days of testing the test pressure was reduced to 0 psig while the new pressure profile remains at 5 psig for the remaining 26 days of the accident. The two test pressure transients with peaks of 110 psig greatly exceed the plant peak pressure requirement of 42 psig. The second pressure transient produces more stress than a sustained pressure. On this basis the test pressure profile can be considered more severe than the new accident pressure profile and these boxes are considered environmentally qualified for the new accident pressure profile.

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