AMERICAN ELECTRIC POWER Service Corporation

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Mr. Karl Kniel, Chief
Light Water Reactors
Branch No. 2
Division of Project Management
United States Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Mr. Kniel:

Per your request, this will transmit to you a record of our conference call on June 1 with regard to our program for qualifying transmitters on Donald C. Cook Nuclear Plant Units 1 and 2. This conference call involved Messrs. R. W. Jurgensen and J. C. Jeffrey and myself at AEP and Messrs. R. Tedesco, T. Ippilito, C. Miller, R. Cudlin and yourself at NRC.

At the March 20, 1978 meeting with the Commission, we presented data to support our belief that the Foxboro transmitters that measure pressurizer pressure and steam generator steam flow on Cook Unit 2 were qualified for steam line break accident conditions. We still believe those arguments are valid and that they provide adequate assurance that operation of Cook Unit 2 does not involve undue risk to the public health and safety.

Understanding, however, that the NRC has some reservations as to the arguments we presented, we have established the following programs that we believe will remove all such reservations.

ROSEMOUNT TRANSMITTERS

On March 28, 1978 we verbally ordered a total of 30 transmitters from Rosemount, Incorporated. The order involved 16 steam generator steam flow transmitters plus 4 spares to cover both Units 1 and 2. It also included 8 pressurizer pressure transmitters plus 2 spares, also for both Units 1 and 2. Delivery of all 30 transmitters is expected in September - October of this year.

Although your questions formally only relate to Unit 2, we believe it is prudent to treat both units equally.

As to the qualifications of the Rosemount transmitters, 3 differential transmitters have each been sequentially tested to meet IEEE 344-1971 and IEEE 323-1971, irradiated to 44 megarads, then seismically tested, then environmentally tested to conditions that more than envelope our steam line break accident conditions. We have the Rosemount report on such tests and we are reviewing it for our concurrence with Rosemount's statement that the transmitters passed the tests successfully. We are further checking the acceptance criteria for output signal accuracy and evaluating the results against the Westinghouse accident analysis.

The output signal of the tested transmitters is 4-20 ma whereas our circuits require 10-50 ma. We have developed circuit changes that will accommodate this difference and are checking these with Westinghouse. Any change will be completely external of the transmitters and, therefore, not affect the test results.

While only differential transmitters were sequentially tested, we believe that the pressure transmitters are equally qualified since they are identical in design and installation except that one sensing line will be unconnected. To further confirm this belief, an individual environmental test was run on a pressure transmitter.

BARTON TRANSMITTERS

As you know, we replaced 12 steam generator level, 3 pressurizer level, and 2 reactor coolant pressure transmitters on Cook Unit 2 with new Barton transmitters prior to startup. Full sequential qualification testing on such Barton transmitters is underway at Westinghouse and expected to be physically completed by the end of July 1978. We placed an additional order with Westinghouse on March 23, 1978 for similar Barton transmitters to be installed on Unit 1.

Westinghouse has ordered a second lot of Barton transmitters which will include those we have ordered for Unit 1. Yesterday I received notice from Westinghouse of their ability to advance delivery toward March 1979. Westinghouse believes that the qualification test on lot one will be applicable to lot two, but they still intend to do verification testing on additional samples from lot two.

I mentioned on the phone that while we expect the Rosemounts to be fully qualified, we are examining the merits of ordering additional Barton transmitters as a further backup to the

Rosemounts on the pressurizer pressure and steam generator steam flow applications.

Summary

We believe this brief outline of our program on transmitters answers your telephone request of May 31 to Mr. R. W. Jurgensen. Based on what has been outlined, we expect to replace the specified Foxboro transmitters on both Cook Units 1 and 2 not later than the next refueling outage of each unit currently contemplated for April 1979 on Unit 1 and October - November 1979 on Unit 2. We will earnestly examine opportunities for earlier installations following receipt and qualification of the individual transmitters.

We further believe that, based on the presentations made to you at past meetings, the continued operation of Cook Unit 2 prior to replacement of the specified Foxboro transmitters does not create any undue hazards to the public health and safety.

Very truly yours,

John E. Dolan

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