

Central File

DUKE POWER COMPANY NRC REGION II

POWER BUILDING

ATLANTA, GEORGIA

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80 AUG 6 A 8:09

WILLIAM O. PARKER, JR.
VICE PRESIDENT
STEAM PRODUCTION

July 30, 1980

TELEPHONE: AREA 704
373-4083

Mr. James P. O'Reilly, Director
U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

Re: RLG:JPO
50-269
50-270
50-287

Dear Sir:

With regard to your letter dated June 27, 1980 which transmitted IE Bulletin 80-16, please find attached a response for Oconee Nuclear Station.

Very truly yours,

William O. Parker, Jr.
William O. Parker, Jr.

RLG:scs

Attachment

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

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DUKE POWER COMPANY
OCONEE NUCLEAR STATION

Response to IE Bulletin 80-16

1. Determine if your facility has installed or plans to install Rosemount Incorporated Model 1151 or 1152 pressure transmitters with output codes "A" or "D" in any safety-related application.

Response

Rosemount transmitters of this type are currently in use at Oconee for indicating reactor coolant pressure and for providing input to control steam generator level. The reactor coolant pressure transmitters provide narrow range input to the Reactor Protective System. They are calibrated from 1700 to 2500 psig and have a maximum range of zero to 3000 psig.

The steam generator level transmitters provide input to the Emergency Feedwater Steam Generator Level Control System. They are calibrated from zero to 388 inches of water and have a maximum range of zero to 750 inches of water.

2. If it is determined that your facility has the transmitters described in 1 above in any safety-related application, determine whether they can be exposed to input pressures that could result in anomalous output signals during normal operation, anticipated transients or design bases accidents. If the affected transmitters can be exposed to input pressures that could result in anomalous output signals, perform a worst case analysis to determine whether the anomalous signals could result in violating any design basis assumption. The safety-related application shall include control, protective or indication functions. If any safety-related application does not conform to the above requirements address the basis for continued plant operation until the problem is resolved and provide an analysis of all potential adverse system effects which could occur as a result of a postulated pressure transmitter maloperation described in Enclosure 1 of this bulletin. In each instance, the analysis should include the effects of postulated transmitter maloperation as it relates to indication, control and protective functions. The analysis shall address both incorrect automatic system operation and incorrect operator actions caused by erroneous indications. Address the conformance to IEEE 279, Section 4.20 in your analysis. Include in your analysis the following table:

- a. Complete model number.
- b. Transmitter range limits.
- c. Transmitter range setting.
- d. Range of process variable measured for (1) normal and (2) accident conditions.
- e. Values of process variable which could produce anomalous indication based upon your evaluation.
- f. Service/function.

Response

A review of the transmitters listed in the Response to Item 1 was conducted. It has been determined that these transmitters cannot be exposed to input pressures that could result in anomalous output signals during normal operation, anticipated transients, or design basis accidents.

The reactor coolant pressure transmitters would have to sense a pressure in excess of 4200 psig (140% of 3000 psig) and the steam generator level transmitter would have to sense a differential pressure in excess of 1050 inches of water (140% of 750 inches of water) in order to indicate an anomalous output. The 4200 psig pressure condition is well above the PORV and code safety relief valve setpoints and is not anticipated. Furthermore, the RPS bi-stables would have tripped the reactor protection system prior to this pressure. The taps for the steam generator level transmitters are 388 inches apart and thus, there is no physical condition under which these transmitters could be subject to a differential pressure in excess of 388 inches.

3. Submit a complete description of all corrective actions required as a result of your analysis and evaluations, together with the schedule for accomplishing the corrective actions.

Response

Based on the above discussion, no corrective actions are necessary.