UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA ST., N.W., SUITE 3100
ATLANTA, GEORGIA 30303

DEC 5 1980



In Reply Refer To:
RII:JPO
50-321
50-366

Georgia Power Company
ATTN: J. H. Miller, Jr.
Executive Vice President
270 Peachtree Street
Atlanta, GA 30303

Gentlemen:

The enclosed Information Notice is provided as an early notification of a possibly significant matter. Recipients of this notice should review the information for possible applicability to their facilities. However, no specific response is requested at this time. After further NRC evaluations we expect a bulletin will be issued to recommend or request specific licensee actions. If you have questions regarding this matter, please contact the Director of the appropriate NRC Regional Office.

Sincerely,

James P. O'Reilly

James P. O'Reilly
Director

Enclosures:
1. IE Information Notice
No. 80-43
2. List of Recently Issued
IE Information Notices

cc w/encl:
M. Manry, Plant Manager
C. E. Belflower, Site QA Supervisor
W. A. Widner, Vice President and
General Manager-Nuclear Generation

SSINS NO.: 6835
Accession No.
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UNITED STATES
NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT
WASHINGTON, D.C. 20555

December 5, 1980

IE Information Notice No. 80-43: FAILURES OF THE CONTINUOUS WATER LEVEL MONITOR FOR THE SCRAM DISCHARGE VOLUME AT DRESDEN UNIT NO. 2

Description of Circumstances:

On December 2, 1980, following a reactor scram at Dresden Nuclear Power Station Unit 2, the licensee discovered that the recently installed scram discharge volume (SDV) continuous water level monitoring system had failed to respond as expected. The continuous water level monitoring system was designed and supplied by Nortec Corporation, and utilizes a single transmit/receive transducer for each of the four level monitoring channels. Following installation of the continuous level monitoring system, the licensee verified its operability by tripping each alarm channel while its sensor was connected to a calibration standard consisting of a section of 4 inch pipe identical to the SDV piping. No in situ test of the equipment was accomplished.

The expected high level annunciator alarms were not received in the control room following scram when the SDV filled with water. An investigation to determine the cause was initiated and once per shift checks of the SDV level on both Units 2 and 3 were re-instituted. The reactor scram system functioned normally and post scram manual ultrasonic tests on the SDV verified proper system drain.

Investigations by the licensee determined that the ultrasonic detectors were inadequately coupled to the SDV piping. The coupling was improved and testing performed to show that the system could detect water flow into the SDV during single control rod scram tests. The unit was taken critical and was heating up on December 4, 1980, at approximately 400 psig when a reactor scram occurred. The expected SDV high level annunciator alarms were not received in the control room immediately following the scram, but were received about 10-15 minutes later when the SDV was draining. Following an additional scram at approximately 20 psig with control rods inserted these alarms were received properly. Investigation identified level detection system operability problems as evidenced by a low signal to noise ratio. Arrangements are being made for replacement components (including transducers) to improve the signal characteristics and reduce system noise. Until the improvements are installed and demonstrated adequate by in situ testing, use of the ultrasonic detection system is being augmented with manual ultrasonic checks of level in the SDV, using the previously required once per shift check. A manual check will be performed after each reactor scram. At Dresden Unit 2 the licensee will

complete the system improvements and required testing within 7 days in accordance with the Immediate Action Letter issued by Region III on December 4, 1980.

The above operating experience indicates the need for a demonstration of the operability of ultransonic systems recently installed to continuously monitor for water in the SDV. Until demonstrated operable by in situ testing, these systems should not be solely relied on for detection of water in the SDV. Use of new ultrasonic detection systems should be augmented by manual checks for water in the SDV each shift and after reactor scram until in situ testing is performed.

It is important that a high degree of reliability be established in operability of these continuous water level monitoring systems in order to support plant operations in the interim until final scram discharge system modifications are performed.

This IE Information Notice is provided as an early notification of a possibly significant matter that is still under review by the NRC staff. Recipients should review the information for possible applicability to their facilities. No specific response is requested at this time. Pending further NRC evaluations, we expect licensee actions will be requested or required.

No written response to this IE Information Notice is required. If you have any questions regarding this matter, please contact the Director of the appropriate NRC Regional Office.

RECENTLY ISSUED
IE INFORMATION NOTICES

| Information Notice No. | Subject | Date of Issue | Issued to |
|---|---|---|---|
| 80-43 | FAILURES OF THE CONTINUOUS WATER LEVEL MONITOR FOR THE SCRAM DISCHARGE VOLUME AT DRESDEN UNIT NO. 2 | 12/5/80 | All BWR and power reactor facilities with an OL or CP |
| 80-42 | Effect of Radiation on Hydraulic Snubber Fluid | 11/24/80 | All power reactor facilities with OL or CP |
| 80-41 | Failure of Swing Check Valve in the Decay Heat Removal System at Davis-Besse Unit No. 1 | 11/10/80 | All power reactor facilities with an OL or CP |
| 80-40 | Excessive Nitrogen Supply Pressure Actuates Safety-Relief Valve Operation to Cause Reactor Depressurization | 11/10/80 | All nuclear power facilities with OL or CP |
| 80-39 | Malfunctions Of Solenoid Valves Manufactured By Valcor Engineering Corporation | 10/31/80 | All light water reactor facilities holding power reactor OLs or CPs |
| 80-38 | Cracking In Charging Pump Casing Cladding | 10/30/80 | All PWR facilities with an OL or CP |
| 80-37 | Containment cooler leaks and reactor cavity flooding at Indian Point Unit 2 | 10/24/80 | All nuclear power facilities holding power reactor OLs or CPs |
| 80-36 | Failure of Steam Generator Support Bolting | 10/10/80 | All nuclear power reactor facilities holding power reactor OLs or CPs |
| 80-35 | Leaking and dislodged Iodine-124 implant seeds | 10/10/80 | All categories G and G1 medical licensees |
| 80-34 | Boron dilution of reactor coolant during steam generator decontamination | 9/26/80 | All pressurized water reactor facilities holding power reactor OLs |
| 80-33 | Determination of teletherapy timer accuracy | 9/15/80 | All teletherapy (G3) licensees |

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