

DUKE POWER COMPANY  
POWER BUILDING  
422 SOUTH CHURCH STREET, CHARLOTTE, N. C. 28212

WILLIAM O. PARKER, JR.  
VICE PRESIDENT  
STEAM PRODUCTION

February 2, 1979

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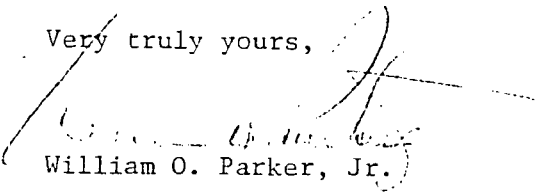
Mr. James P. O'Reilly, Director  
U. S. Nuclear Regulatory Commission  
Region II  
101 Marietta Street, Suite 3100  
Atlanta, Georgia 30303

Re: Oconee Unit 1  
Docket No. 50-269

Dear Mr. O'Reilly:

Pursuant to Sections 6.2 and 6.6.2.1b(1) of the Oconee Nuclear Station Technical Specifications, please find attached Reportable Occurrence Report RO-269/79-1.

Very truly yours,

  
William O. Parker, Jr.

SRL:scs  
Attachment

cc: Director, Office of Management Information  
and Program Control

7902060186

*Handwritten initials/signature*  
A002  
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DUKE POWER COMPANY  
OCONEE UNIT 1

Report Number: RO-269/79-1

Report Date: February 2, 1979

Occurrence Date: January 2, 1979

Facility: Oconee Unit 1, Seneca, South Carolina

Identification of Occurrence: RPS Channel C. Flow Transmitter Inoperable

Conditions Prior to Occurrence: 96% Full Power

Description of Occurrence:

On January 2, 1979, the Unit 1 Reactor Protective System (RPS) Channel C total reactor coolant flow indication was observed to be erratic. The computer alarmed, notifying the Reactor Operator of the problem. Channel C indicated a flow rate of  $173.6 \times 10^6$  lb/hr, while the other channels read  $137.4 \times 10^6$  lb/hr. The Channel A flux-imbalance-flow bistable was bypassed since the Channel A Loop A flow transmitter was already out of service, and Channel C was tripped, placing the RPS in a one out of three trip logic for RPS power range channels and a one out of two trip logic for RPS reactor coolant flow channels. This operating condition is allowed by Table 3.5.1-1 of the Oconee Nuclear Station Technical Specifications. On January 3, 1979, in order to gain access to the Channel C Loop A transmitter, the Reactor Building was purged, resulting in a release of 1283 curies (primarily xenon-133) to the atmosphere. A malfunctioning amplifier was discovered in the flow transmitter. The transmitter was valved out, and the amplifier was replaced. The transmitter was valved back in, but required calibration to provide a correct flow indication. The transmitter was again valved out and calibrated. On January 5, 1979 both the Channel C Loop A and the Channel A Loop A flow transmitters were valved back in. At that time all transmitters were verified to be operable.

Apparent Cause of Occurrence:

The high flow indication was due to a malfunctioning amplifier in the flow transmitter.

Analysis of Occurrence:

Prior to the discovery of the erroneous indication by the Channel C Loop A flow transmitter, a dummy bistable had been installed in place of the Channel A Loop A flux-imbalance-flow bistable since the Channel A Loop A flow transmitter was out of service. At that time the RPS was in a two out of three trip logic for reactor coolant flow channels, and a two out of four trip logic for power range channels. Channel C was tripped in order to effect repairs on its Loop A flow transmitter, placing the RPS in a one out of two trip logic for flow channels and a one out of three trip logic for power range channels. Operation at rated power is allowable under these conditions by Table 3.5.1-1 of the Technical Specifications. The 1283 curies of xenon-133 gas released as a result of the Reactor Building purge is approximately 2.6% of the yearly objective.

Analysis of Occurrence (Continued)

Therefore, this incident did not adversely affect the health and safety of the public.

Corrective Action:

The malfunctioning amplifier in the Channel C Loop A flow transmitter was replaced, and the transmitter was recalibrated and verified to be operable.

