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(TEMPORARY FORM)

CONTROL NO: 10847

FILE: _____

FROM: Duke Power Co Charlotte, NC A C Thies		DATE OF DOC 10-18-74	DATE REC'D 10-21-74	LTR XXX	TWX	RPT	OTHER FACSIMILE
TO: Mr Moseley		ORIG NONE SIGNED	CC	OTHER	SENT AEC PDR <u>XXX</u> SENT LOCAL PDR <u>XXX</u>		
CLASS	UNCLASS XXXX	PROP INFO	INPUT	NO CYS REC'D 1	DOCKET NO: 50-269		

DESCRIPTION:

Ltr trans the following:

PLANT NAME: Occonee 1

ENCLOSURES:

Abnormal Occurrence #74-14 on 10-5-74 concerning failure of pressure switch 1PS-364.....

Regulatory Docket File

FOR ACTION INFORMATION 11-29-74 ebf

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DUKE POWER COMPANY

POWER BUILDING

422 SOUTH CHURCH STREET, CHARLOTTE, N. C. 28201

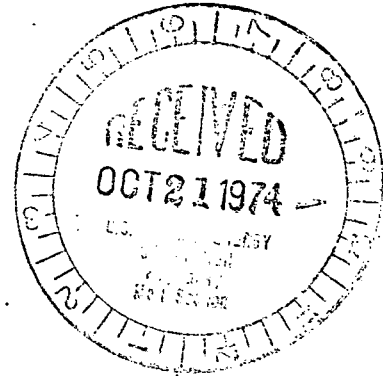
A. C. THIES
SENIOR VICE PRESIDENT
PRODUCTION AND TRANSMISSION

P. O. Box 2178

October 18, 1974

Regulatory Docket File

Mr. Norman C. Moseley, Director
Directorate of Regulatory Operations
U. S. Atomic Energy Commission
Region II - Suite 818
230 Peachtree Street, Northwest
Atlanta, Georgia 30303



Re: Oconee Unit 1
Docket No. 50-269

Dear Mr. Moseley:

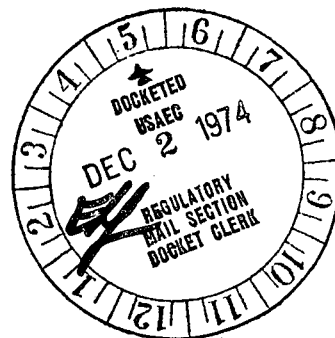
Pursuant to Sections 6.2 and 6.6.2 of the Oconee Nuclear Station
Technical Specifications, please find attached Abnormal Occurrence
Report AO-269/74-14.

Very truly yours,

A. C. Thies

ACT:vr
Attachment

cc: Mr. Angelo Giambusso



10847

DUKE POWER COMPANY
OCONEE UNIT 1

Report No.: AO-269/74-14

Report Date: October 18, 1974

Occurrence Date: October 5, 1974

Facility: Oconee Unit 1, Seneca, South Carolina

Identification of Occurrence: Failure of Pressure Switch IPS-364

Conditions Prior to Occurrence: Unit at 75 Percent of Full Power

Description of Occurrence:

At 1350 October 5, 1974, a 4 gpm reactor coolant leak was detected on Oconee Unit 1. A reactor shutdown commenced immediately after discovery. During the shutdown, at 1441, the Channel A Engineered Safeguards (ES) and Reactor Protective Systems (RPS) tripped indicating low reactor coolant system pressure. The reactor was subcritical by 1547, however, personnel entry to the Reactor Building was not possible until 0600 October 6, 1974. Pressure Switch IPS-364, interlock for valve LLP-2, was found leaking and was isolated. Channel A ES and RPS pressure transmitter IPT-21P was found to be damaged due to steam from IPS-364.

Designation of Apparent Cause of Occurrence:

The reactor coolant leakage from pressure switch IPS-364 was the result of a defective diaphragm. This was the first failure of this type of valve at Oconee. The valve is proof tested to 4500 psi.

The failure of pressure transmitter IPT-21P was due to electronic component failure induced by heat from the steam being impinged on it.

Analysis of Occurrence:

Pressure switch IPS-364 creates an electrical interlock to the operation of valve LLP-2, decay heat removal from the reactor coolant system, which prevents opening with reactor coolant pressure greater than 410 psi. This will prevent inadvertent overpressurization of the low pressure injection piping. The failure of the pressure switch resulted in the proper action of preventing the opening of valve LLP-2.

Valve LLP-1 serves as a redundant isolation valve to prevent overpressurization of the low pressure injection system. This valve is interlocked using a pressure signal from the integrated control system which prevents operation with reactor coolant pressure in excess of 200 psi. Valve LLP-1 was not affected by this incident.

Pressure transmitter 1PT-21P supplies pressure information to Channel A ES and RPS. The failure of this transmitter gave a "zero" pressure indication to ES and RPS Channel A and resulted in a channel trip. The pressure switch failed in a conservative manner by giving a channel trip.

The maximum level of contamination in the Reactor Building was 2.1×10^{-7} $\mu\text{Ci/ml}$ of ^{131}I . Personnel radiation exposure was minimized during this incident. All entries into the Reactor Building were controlled by health physics personnel. No activity was released to the environment. It is concluded that the health and safety of the public was not affected.

Corrective Action:

Pressure switch 1PS-364 was isolated and removed. The piping was capped because a spare pressure switch was not in stock. The breakers for valve 1LP-2 and redundant valve 1LP-1 were red tagged to prevent inadvertent actuation.

Pressure transmitter 1PT-21P was replaced with a new transmitter and was properly calibrated.

Failure Data:

Pressure switch 1PT-364 is a Custom Component, Type 6045GX4 (200-400 psi range, 4500 psi proof pressure, 35 psi deadband).

Pressure transmitter 1PT-21P is a Motorola Type 56 PH.