REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)
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REC: O"REILLY J P
NRC

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DUKE PWR

DOCDATE: 01/26/78
DATE RCVD: 01/26/78

DOCTYPE: LETTER NOTARIZED: NO
SUBJECT:
LICENSEE EVENT REPT (RO 50-269/77-31) ON 12/29/77 CONCERNING RCS PRESSURE CHANNEL INOPERABLE DUE TO DIAPHRAGM OF PRESSURE SWITCH 1PS-364 FAILING.

COPIES RECEIVED
LTR 0 ENCL 1

PLANT NAME: OCONEE - UNIT 1

REVIEWER INITIAL: XJM
DISTRIBUTOR INITIAL:

********** DISTRIBUTION OF THIS MATERIAL IS AS FOLLOWS **********

NOTES:
1. M. CUNNINGHAM - ALL AMENDMENTS TO FSAR AND CHANGES TO TECH SPECS

INCIDENT REPORTS
(DISTRIBUTION CODE A002)

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WALHALLA, SC**W/ENCL
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NSIC**W/ENCL
ACRS CAT B**W/16 ENCL

DISTRIBUTION: LTR 45 ENCL 45
SIZE: 1P+2P+1P

CONTROL NBR: 780310003

********** THE END **********

RV 004

DUKE POWER COMPANY
POWER BUILDING
422 SOUTH CHURCH STREET, CHARLOTTE, N. C. 28242

WILLIAM O. PARKER, JR.
VICE PRESIDENT
STEAM PRODUCTION

January 26, 1978

TELEPHONE: AREA 704
373-4083

Mr. James P. O'Reilly, Director
U. S. Nuclear Regulatory Commission
Suite 1217
230 Peachtree Street, Northwest
Atlanta, Georgia 30303

RE: Oconee Unit 1
Docket No. 50-269

Dear Mr. O'Reilly:

Pursuant to Sections 6.2 and 6.6.2 of the Oconee Nuclear Station Technical Specifications, please find attached Reportable Occurrence Report RO-269/77-31.

Very truly yours,

William O. Parker, Jr.

KRW:ge
Attachment

cc: Director, Office of Management Information
and Program Control

A002
1
011

DUKE POWER COMPANY
OCONEE UNIT 1

Report No.: RO-269/77-31

Report Date: January 26, 1978

Occurrence Date: December 29, 1977

Facility: Oconee Unit 1, Seneca, South Carolina

Identification of Occurrence: RCS Pressure Channel Inoperable

Conditions Prior to Occurrence: 90 percent full power

Description of Occurrence:

On December 27, 1977, unidentified Reactor Coolant System leakage of less than 1 gpm was detected. At 2131 RPS Channel A tripped on low pressure/temperature and was placed in manual bypass. At 0200 on December 28 the previously detected leak was determined to be coming from the area of Engineered Safeguard Channel 1 and RPS Channel A Pressure Transmitter. A reactor shutdown was initiated at 0209 due to high Reactor Building (RB) activity. At 0600 personnel entered the RB and determined that pressure switch 1 PS-364 was leaking and valved it out. Reactor power reduction was stopped at 39 percent full power and with the isolation of 1PS-364, RPS Channel A was returned to service.

At 2400 during PT/1&2/0600/01, it was determined that RC Loop A wide range (WR) pressure was indicating high. Further investigation determined that ES Analog Channel 1 WR pressure was indicating high and would not trip at required setpoints. ES Analog Channel 1 was placed in trip condition. Pressure transmitter 1PT-21P, which is located approximately 5 feet from and slightly below 1PS-364 was recalibrated and ES Analog Channel 1 was returned to service.

Apparent Cause of Occurrence:

The diaphragm of pressure switch 1PS-364 evidently failed as steam was seen blowing from the switch. This failure caused RPS Channel A to trip. The steam from the switch failure evidently impacted on and shifted the zero setting of pressure transmitter 1PT-21P. The zero shift caused the high reading on ES Analog Channel 1.

Analysis of Occurrence:

Pressure switch 1PS-364 provides a signal to prevent valves LP-1, -2 from opening with RCS pressure greater than 400 psig. The failed diaphragm caused RPS Channel A to trip. RPS Channels B, C & D remained fully operational during the incident as required by Technical Specifications 3.5.1. Valves LP-1, -2 had been tagged shut prior to this incident.

The zero setpoint of pressure transmitter 1PT-21P shifted when it was heated by steam from the switch failure. ES Analog Channel 1 which provides a signal for LPI and HPI initiation became inoperable, however, channels 2 and 3 remained fully operational as required by Technical Specification 3.5.1. The health and safety of the public were not endangered by this incident.

Corrective Action:

Pressure switch 1PS-364 is presently valved out and will be replaced during a future outage. Pressure transmitter 1PT-21P was recalibrated and returned to service.

NRC FORM 366 (7-77)

U. S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT

EXHIBIT A

CONTROL BLOCK: (1) (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

0 1	S C N E E 1	(2)	0 0 - 0 0 0 0 0 - 0 0	(3)	4 1 1 1 1	(4)		(5)
	LICENSEE CODE		LICENSE NUMBER		LICENSE TYPE		CAT	

CON'T 0 1	REPORT SOURCE	L (6)	0 5 0 0 0 2 7 0	(7)	1 2 2 9 7 7	(8)	0 1 2 6 7 8	(9)
			DOCKET NUMBER		EVENT DATE		REPORT DATE	

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

0 2 On December 27 an increase in reactor coolant leakage was noted. At 2131
0 3 RPS channel A tripped on press/temp. It was determined that a pressure
0 4 switch had blown. Reactor shutdown was initiated but was terminated when
0 5 switch was valved out. On December 29 it was noted that Channel 1 WR
0 6 pressure was reading high so the channel was tripped. At 1545 recalibration
0 7 was complete so channel was returned to service. At no time was the ability
0 8 of the reactor to operate safely impaired.

	SYSTEM CODE	CAUSE CODE	CAUSE SUBCODE	COMPONENT CODE	COMP. SUBCODE	VALVE SUBCODE
0 9	I B (11)	E (12)	G (13)	I N S T R U (14)	T (15)	Z (16)

(17) LER/RO REPORT NUMBER	EVENT YEAR		SEQUENTIAL REPORT NO.		OCCURRENCE CODE	REPORT TYPE		REVISION NO.
	7 7	—	0 3 1	/	0 3	L	—	0

ACTION TAKEN	FUTURE ACTION	EFFECT ON PLANT	SHUTDOWN METHOD	HOURS (22)	ATTACHMENT SUBMITTED	NPRD-4 FORM SUB.	PRIME COMP. SUPPLIER	COMPONENT MANUFACTURER
E (18)	Z (19)	Z (20)	Z (21)	0 0 0 0	Y (23)	Y (24)	L (25)	M 4 5 5 (26)

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0 The ES Analog Channel 1 WR pressure transmitter is located about five feet
1 1 from and slightly below the blown pressure switch. It is likely that steam
1 2 from the switch struck the transmitter thus throwing it out of calibration.
1 3 Recalibration corrected the transmitter error. Temporarily valving out the
1 4 switch has eliminated the leak. The transmitter was a model 56PH.

	FACILITY STATUS	% POWER	OTHER STATUS (30)	METHOD OF DISCOVERY	DISCOVERY DESCRIPTION (32)
1 5	F (28)	0 9 0 (29)	NA	B (31)	During performance test PT/1&2/600/1

	ACTIVITY RELEASED	CONTENT OF RELEASE	AMOUNT OF ACTIVITY (35)	LOCATION OF RELEASE (36)
1 6	Z (33)	Z (34)	NA	NA

PERSONNEL EXPOSURES

	NUMBER	TYPE	DESCRIPTION (39)
1 7	0 0 0 (37)	Z (38)	NA

PERSONNEL INJURIES

	NUMBER	DESCRIPTION (41)
1 8	0 0 0 (40)	NA

LOSS OF OR DAMAGE TO FACILITY (43)

	TYPE	DESCRIPTION
1 9	Z (42)	NA

PUBLICITY

	ISSUED	DESCRIPTION (45)	NRC USE ONLY
2 0	N (44)	NA	

NAME OF PREPARER K. R. Wilson PHONE: (704) 373-8197