

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 8707170201 DOC. DATE: 87/07/10 NOTARIZED: NO
 FACIL: 50-287 Oconee Nuclear Station, Unit 3, Duke Power Co.
 AUTH. NAME AUTHOR AFFILIATION
 NORTH, P. J. Duke Power Co.
 TUCKER, H. B. Duke Power Co.
 RECIP. NAME RECIPIENT AFFILIATION

DOCKET #
 05000287

SUBJECT: LER 87-008-00: on 870429, test tee cap associated w/Pressure Switch 3PS66 found removed & isolation valve closed. Caused by personnel error. Pressure Switch 3PS66 calibr, test tee cap installed & isolation valve returned to svc. W/870710 ltr.

DISTRIBUTION CODE: IE22D COPIES RECEIVED: LTR 1 ENCL 1 SIZE: 6
 TITLE: 50.73 Licensee Event Report (LER), Incident Rpt, etc.

NOTES: AEOD/Ornstein: 1cy.

05000287

	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL		RECIPIENT ID CODE/NAME	COPIES LTTR ENCL
	PD2-3 LA	1 1		PD2-3 PD	1 1
	PASTIS, H	1 1			
INTERNAL:	ACRS MICHELSON	1 1		ACRS MOELLER	2 2
	AEOD/DOA	1 1		AEOD/DSP/ROAB	2 2
	AEOD/DSP/TPAB	1 1		DEDRO	1 1
	NRR/DEST/ADE	1 0		NRR/DEST/ADS	1 0
	NRR/DEST/CEB	1 1		NRR/DEST/ELB	1 1
	NRR/DEST/ICSB	1 1		NRR/DEST/MEB	1 1
	NRR/DEST/MTB	1 1		NRR/DEST/PSB	1 1
	NRR/DEST/RSB	1 1		NRR/DEST/SGB	1 1
	NRR/DLPQ/HFB	1 1		NRR/DLPQ/QAB	1 1
	NRR/DOEA/EAB	1 1		NRR/DREP/RAB	1 1
	NRR/DREP/RPB	2 2		NRR/PMAS/ILRB	1 1
	NRR/PMAS/PTSB	1 1		REG FILE 02	1 1
	RES DEPY GI	1 1		RES TELFORD, J	1 1
	RES/DE/EIB	1 1		RGN2 FILE 01	1 1
EXTERNAL:	EG&G GROH, M	5 5		H ST LOBBY WARD	1 1
	LPDR	1 1		NRC PDR	1 1
	NSIC HARRIS, J	1 1		NSIC MAYS, G	1 1

NOTES: 1 1

TOTAL NUMBER OF COPIES REQUIRED: LTTR 45 ENCL 43

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Oconee Nuclear Station, Unit 3										DOCKET NUMBER (2) 0 5 0 0 0 2 8 7										PAGE (3) 1 OF 4		
TITLE (4) NUMBER OF HIGH REACTOR BUILDING PRESSURE CHANNELS BELOW T.S. LIMIT																						
EVENT DATE (5)			LER NUMBER (6)					REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)											
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES						DOCKET NUMBER(S)							
0	4	0	9	8	7	8	7	0	0	8	0	7	1	0	8	7	0 5 0 0 0					
OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)																				
N		20.402(b)					20.405(c)					50.73(a)(2)(iv)					73.71(b)					
POWER LEVEL (10)		20.405(a)(1)(i)					50.38(c)(1)					50.73(a)(2)(v)					73.71(c)					
		20.405(a)(1)(ii)					50.38(c)(2)					50.73(a)(2)(vii)					OTHER (Specify in Abstract below and in Text, NRC Form 366A)					
		20.405(a)(1)(iii)					50.73(a)(2)(i)					50.73(a)(2)(viii)(A)										
		20.405(a)(1)(iv)					50.73(a)(2)(ii)					50.73(a)(2)(viii)(B)										
		20.405(a)(1)(v)					50.73(a)(2)(iii)					50.73(a)(2)(x)										
LICENSEE CONTACT FOR THIS LER (12)																						
NAME PHILIP J. NORTH, LICENSING										TELEPHONE NUMBER AREA CODE 7 0 4 3 7 3 - 7 4 5 6												
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)																						
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS												
A	J	C		NO																		
SUPPLEMENTAL REPORT EXPECTED (14)										EXPECTED SUBMISSION DATE (15)					MONTH	DAY	YEAR					
YES (If yes, complete EXPECTED SUBMISSION DATE)										XX NO												
ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)																						

On April 29, 1987, with Unit 3 at Cold Shutdown, a visual inspection of test tee caps required for containment integrity was performed. As a result of this visual inspection, the test tee cap associated with Pressure Switch 3PS66 was found removed and its associated isolation valve closed. This Pressure Switch provides a wide range Reactor Building pressure input to Reactor Protective System Channel B. Oconee Nuclear Station Technical Specification 3.5.1.1 requires at least three reactor Protective System High Reactor Building Pressure Channels to be operable during Startup or whenever the Reactor is in a critical state. Therefore, any Reactor Protective System Channel, other than Channel B, removed from service between March 26 and March 31 and between April 10, 1987 and April 25, 1987, is considered to be a violation of Oconee Nuclear Station Technical Specifications 3.5.1.1.

The immediate corrective action was to return Pressure Switch 3PS66 to an operable status. The root cause was determined to be a personnel error, person unknown. With the lack of pertinent documentation, it is unknown when this incident took place or which personnel initiated the actions causing 3PS66 to be inoperable.

There were no unplanned safety system actuations or malfunctions, and no releases of radioactivity as a result of this incident. Therefore, the health and safety of the public was not affected.

8707170201 870710
PDR ADOCK 05000287
S PDR

IEZ 11

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED FOR RELEASE BY THE
NRC OFFICE OF PUBLIC AFFAIRS

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
Oconee Nuclear Station - Unit 3	0500028787	—	008	—	00	02 OF 04

TEXT (If more space is required, use additional NRC Form 366A's) (17)

Background:

The Reactor Protective System is made up of four identical protective channels. Per Technical Specification (T.S.) 3.5.1.1 requirements a minimum of three channels must be operable before a unit can reach criticality or enter into a Startup mode, (which consists of deboration of the Reactor Coolant System with the intent of going critical). If the unit is operating and more than one channel is declared inoperable, T.S. 3.5.1.2 requires that the unit be brought to Hot Shutdown within 12 hours. Under normal operating conditions, a two out of four channel trip is required to trip the reactor. Under On-line test conditions, the Reactor Protective System channel being tested is placed in bypass which renders that channel inoperable. In this case, a two out of three channel trip is required to trip the reactor.

Description of Occurrence:

On March 10, 1987, with Unit 3 in a Refueling Outage, an Integrated Leak Rate Test (ILRT) of the Reactor Building was performed. As a prerequisite to this test, Pressure Switch 3PS66 was verified to have a test tee cap installed on its process tubing and also verified to have its local isolation valve open. After this verification was complete, the Reactor Building ILRT was started. The ILRT was successfully completed on March 18, 1987, indicating the test tee cap for Pressure Switch 3PS66 was properly installed and leak tight. The following day, a visual inspection of test tees required to be capped for containment integrity was performed. The inspection verified all test tee caps were correctly installed. In order to meet the requirements of T.S. 4.1.1, an annually required calibration procedure for Reactor Protective System Channel B Pressure Instruments was performed. This procedure included the calibration of Pressure Switch 3PS66. During the calibration, Reactor Protective System Channel B was removed from service. Pressure Switch 3PS66 was then valved out of service and its test tee cap was removed to facilitate calibration. After calibration of Pressure Switch 3PS66 was completed, the associated test tee cap was installed and the local isolation valve was opened on March 23, 1987. These actions were independently verified and documented on the calibration procedure. With calibration of Pressure Switch 3PS66 complete, Channel B of the Reactor Protective System was returned to service. This is the last occasion the isolation valve was verified open and the test tee cap was verified installed. Thus, the Channel B High Reactor Building Pressure Unit of the Reactor Protective System was subsequently assumed to be inoperable from March 23, 1987 until it was discovered on April 29, 1987 with Pressure Switch 3PS-66 valved out and its test tee cap removed. On March 26, 1987, the Unit 3 Refueling Outage was concluded and the unit was brought to Startup conditions. Because of an unrelated startup problem, Unit 3 was brought to Cold Shutdown again on March 31, 1987. Unit 3 was again escalated to the Startup mode on April 10, 1987. Consequently, at any time Channels A, C, or D were removed from service while Unit 3 was in a startup mode or in a critical state, a violation of T.S. 3.5.1.1 occurred. T.S. 3.5.1.1 requires that a minimum of 3 out of 4 RPS High Reactor Building Pressure Channels be operable when the reactor is in a startup mode or

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED FOR RELEASE BY NRC
EXPIRES 12/31/85

FACILITY NAME (1) Oconee Nuclear Station - Unit 3	DOCKET NUMBER (2) 0 5 0 0 0 2 8 7	LER NUMBER (6)			PAGE (3)		
		YEAR 8 7	SEQUENTIAL NUMBER 0 0 8	PERSON NUMBER 0 0	0 3	OF 0 4	

TEXT (If more space is required, use additional NRC Form 366A's) (17)

critical state. On several occasions between March 26, 1987 and March 31, 1987 and between April 10, 1987 and April 24, 1987. Channels A, C, and D were removed from service during this time period due to the performance of several RPS tests which require the channel to be tested in the bypass mode.

The inoperable condition of Pressure Switch 3PS66 was unknown until it was discovered on April 29, 1987 during a normal inspection of all test tee caps required for containment integrity. After the discovery of the inoperable condition of 3PS66, it was calibrated and returned to an operable condition with its test tee cap installed and its local isolation valve opened.

Cause of Occurrence:

The root cause of this incident was determined to be a personnel error, person unknown. Pressure Switch 3PS66 was rendered inoperable by closing its isolation valve and removing its test tee cap without documentation.

It is unknown why or when Pressure Switch 3PS66 was placed in an inoperable condition. No documentation could be found to lead to a specific individual that created the personnel error described in this report. It can only be assumed that Pressure Switch 3PS66 was rendered inoperable between the time of the last Maintenance activity performed on the Pressure Switch (the annual calibration per T.S. 4.1.1) and the time its inoperable condition was discovered. Independent verification of the local isolation valve being opened and the test tee cap being installed was appropriately documented on the annual calibration procedure performed on Pressure Switch 3PS66. No documentation exists to show any additional work was performed on Pressure Switch 3PS66 after the last documented maintenance activity. All appropriate documentation pertaining to the maintenance activities performed on Pressure Switch 3PS66 was properly completed.

In addition, personnel involved in the last documented maintenance activity indicate, with a high degree of certainty, that they properly removed and restored Pressure Switch 3PS66 to service per the applicable procedures. Not only did the technicians independently verify the installation of the test tee cap and the opening of the local isolation valve by procedure, but they double checked the cap and the valve before leaving their work location.

Corrective Actions:

The immediate corrective action was to calibrate Pressure Switch 3PS66, install its test tee cap, and open its local isolation valve, thus returning 3PS66 to service.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED FOR RELEASE BY NRC
EXPIRES 03/01/93

FACILITY NAME (1)

DOCKET NUMBER (2)

LER NUMBER (6)

PAGE (3)

Oconee Nuclear Station - Unit 3

0 5 0 0 0 2 8 7

YEAR SEQUENTIAL
NUMBER

8 7

0 0 8

PERSON
NUMBER

0 0 0

4

OF

0 4

TEXT (If more space is required, use additional NRC Form 366A's) (17)

Supplemental corrective action included:

- o Revision of the procedure for visual inspection of the test tees required in the Containment Integrity Procedure prior to the startup was revised to include verification that local isolation valves for instruments are open in addition to verifying test tee caps are installed correctly. This procedure will also be performed nearer to Unit Startup in the future.
- o Initiation of a training document to advise Instrument and Electrical Maintenance Personnel of the importance of ensuring that instruments are properly returned to service.

Analysis of Occurrence:

During a Unit Startup or while the Reactor is in a critical state, if two Reactor Protective System (RPS) High Reactor Building Pressure Channels are rendered inoperable, a violation of Oconee Nuclear Station Technical Specifications occurs. In this case, the redundancy of the RPS High Reactor Building Pressure Trip signal had been decreased. A High Reactor Building Pressure Trip Signal through the RPS is not required for tripping the Reactor in the accident analysis of Chapter 15 of the Oconee Nuclear Station Final Safety Analysis Report (FSAR). This signal is provided, through the RPS, as a means of increasing the redundant ability of the RPS to trip the Reactor if a high pressure situation exists in the Reactor Building. This RPS signal is not required to place the Reactor in a Hot Shutdown condition as described in the FSAR. Only the diversity of redundant capabilities to trip the Reactor during high Reactor Building pressure conditions was affected and not the ability required by the FSAR to ensure a Reactor trip should such a condition exist.

There were no unplanned safety system actuations or malfunctions, and no releases of radioactivity as a result of this incident. Therefore, the health and safety of the public was not affected.

DUKE POWER COMPANY

P.O. BOX 33189
CHARLOTTE, N.C. 28242

HAL B. TUCKER
VICE PRESIDENT
NUCLEAR PRODUCTION

TELEPHONE
(704) 373-4531

July 10, 1987

U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, D.C. 20555

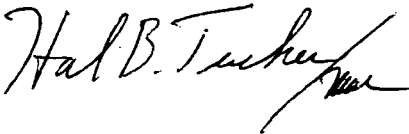
Subject: Oconee Nuclear Station, Unit 3
Docket No. 50-287
LER 287/87-08

Gentlemen:

Pursuant to 10CFR 50.73 Sections (a)(1) and (d), attached is Licensee Event Report (LER) 287/87-08 concerning the inoperability of two high reactor building pressure channels of the Reactor Protective System.

This report is submitted in accordance with §50.73(a)(2)(i)(B). This event is considered to be of no significance with respect to the health and safety of the public.

Very truly yours,



Hal B. Tucker

PJN/205/jgc

Attachment

IE22
1/1

Document Control Desk

July 10, 1987

Page 2

xc: Dr. J. Nelson Grace, Regional Administrator
U.S. Nuclear Regulatory Commission - Region II
101 Marietta Street, NW, Suite 2900
Atlanta, Ga. 30323

Ms. Helen Pastis
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

M&M Nuclear Consultants
1221 Avenue of the Americas
New York, New York 10020

Mr. J.C. Bryant
NRC Resident Inspector
Oconee Nuclear Station

INPO Records Center
Suite 1500
1100 Circle 75 Parkway
Atlanta, Georgia 30339

American Nuclear Insurers
c/o Dottie Sherman, ANI Library
The Exchange, Suite 245
270 Farmington Avenue
Farmington, CT 06032