

PRIORITY 1
ACCELERATED RIDS PROCESSING

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:9504270127 DOC.DATE: 95/04/21 NOTARIZED: NO DOCKET #
 FACIL:50-281 Surry Power Station, Unit 2, Virginia Electric & Powe 05000281
 AUTH.NAME AUTHOR AFFILIATION
 CHRISTIAN,D.A. Virginia Power (Virginia Electric & Power Co.)
 RECIP.NAME RECIPIENT AFFILIATION

SUBJECT: LER 95-003-01:on 950210, "As Found" calibration test data for three RPS transmitters not within allowable tolerance. Caused by calibration w/o accounting for sub-atmospheric conditions.Pressure gauge replaced.W/950421 ltr.

DISTRIBUTION CODE: IE22T COPIES RECEIVED: LTR 1 ENCL 1 SIZE: 8
 TITLE: 50.73/50.9 Licensee Event Report (LER), Incident Rpt, etc.

NOTES: 05000281

	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL	
	PD2-1 PD	1 1	BUCKLEY, B	1 1	
INTERNAL:	ACRS	1 1	AEOD/SPD/RAB	2 2	
	AEOD/SPD/RRAB	1 1	<u>FILE CENTER</u>	1 1	
	NRR/DE/ECGB	1 1	NRR/DE/EELB	1 1	
	NRR/DE/EMEB	1 1	NRR/DISP/PIPB	1 1	
	NRR/DOPS/OECB	1 1	NRR/DRCH/HHFB	1 1	
	NRR/DRCH/HICB	1 1	NRR/DRCH/HOLB	1 1	
	NRR/DRSS/PRPB	2 2	NRR/DSSA/SPLB	1 1	
	NRR/DSSA/SRXB	1 1	RES/DSIR/EIB	1 1	
	RGN2 FILE 01	1 1			
EXTERNAL:	L ST LOBBY WARD	1 1	LITCO BRYCE, J H	2 2	
	NOAC MURPHY, G.A	1 1	NOAC POORE, W.	1 1	
	NRC PDR	1 1	NUDOCS FULL TXT	1 1	
NOTES:		1 1			

NOTE TO ALL "RIDS" RECIPIENTS:

PLEASE HELP US TO REDUCE WASTE! CONTACT THE DOCUMENT CONTROL
 DESK, ROOM P1-37 (EXT. 504-2083) TO ELIMINATE YOUR NAME FROM
 DISTRIBUTION LISTS FOR DOCUMENTS YOU DON'T NEED!

FULL TEXT CONVERSION REQUIRED
 TOTAL NUMBER OF COPIES REQUIRED: LTTR 29 ENCL 29

AD4

F
F
I
C
F
I
T
Y
1
D
O
C
U
M
E
N
T

**Virginia Electric and Power Company
Surry Power Station
5570 Hog Island Road
Surry, Virginia 23883-0315**

April 21, 1995

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

Serial No.: 95-159A
SPS:BCB
Docket No.: 50-281
License No.: DPR-37

Dear Sirs:

Pursuant to Surry Power Station Technical Specifications, Virginia Electric and Power Company hereby submits the following Licensee Event Report applicable to Surry Power Station Unit 2.

REPORT NUMBER

50-281/95-003-01

This report has been reviewed by the Station Nuclear Safety and Operating Committee and will be forwarded to the Management Safety Review Committee for its review.

Very truly yours,


D. A. Christian
Station Manager

Enclosure

cc: Regional Administrator
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30323

M. W. Branch
NRC Senior Resident Inspector
Surry Power Station

27001

9504270127 950421
PDR ADOCK 05000281
S PDR

JE22

LICENSING EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1) SURRY POWER STATION, Unit 2	DOCKET NUMBER (2) 05000 - 281	PAGE (3) 1 OF 7
---	---	---------------------------

TITLE (4)
Transmitters Out of Calibration Due to Use of a Gauge that was Not Temperature Compensated

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 NAME	DOCKET NUMBER
02	24	95	95	-- 003 --	01	04	21	95	Surry Unit 2	05000 - 281
									FACILITY NAME	DOCKET NUMBER
										05000 -

OPERATING MODE (9) N POWER LEVEL (10) 0	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR:(Check one or more) (11)									
		20.402(b)		20.405(c)		50.73(a)(2)(iv)		73.71(c)		
		20.405(a)(1)(i)		50.36(c)(1)		50.73(a)(2)(v)		73.71(c)		
		20.405(a)(1)(ii)		50.36(c)(2)	X	50.73(a)(2)(vii)		OTHER		
		20.405(a)(1)(iii)	X	50.73(a)(2)(i)		50.73(a)(2)(viii)(A)		(Specify in Abstract below and in Text, NRC Form 366A)		
	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 D. A. Christian, Station Manager	TELEPHONE NUMBER (Including Area Code) (804) 357-3184
---	---

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
				NO					

SUPPLEMENTAL REPORT EXPECTED (14)				EXPECTED SUBMISSION DATE (15)			MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE)	X	NO							

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On February 10, 1995, with Unit 1 at 100% power and Unit 2 at Refueling Shutdown, the Unit 2 As Found calibration test data for three Reactor Protection System transmitters was not within allowable tolerance. During performance of scheduled calibrations, technicians calibrating three pressurizer pressure protection transmitters discovered the As Found data was above the allowable tolerance for each of the three transmitters. A Root Cause Evaluation Team determined the event was caused by the calibration of the protection transmitters without accounting for containment sub-atmospheric conditions using a pressure gauge that was not temperature compensated. The transmitters provide pressurizer pressure input to the Reactor Protection System and Engineered Safety Features. An assessment of the safety implications has determined that operation of Unit 2 remained within its design basis and safety analysis limits. Unit 2 was in a safe shutdown condition at the time of discovery. Unit 1 pressurizer pressure protection transmitters were not affected. The Measuring and Test Equipment Program is being assessed for enhancements to prevent recurrence. The health and safety of the public were not affected by this event. This report is being made pursuant to 10CFR50.73(a)(2)(i)(B) for operating in a condition prohibited by Technical Specifications, and 10CFR50.73(a)(2)(vii) for an event where a single cause resulted in independent protection functions being inoperable.

LICENSING EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
SURRY POWER STATION, Unit 2	05000 - 281	95	- 003 -	01	2 of 7

TEXT (if more space is required, use additional copies of NRC Form 366A) (17)

1.0 DESCRIPTION OF THE EVENT

During a Unit 2 scheduled maintenance outage in June 1994, three new pressurizer [EIS:AB,PZR] pressure protection transmitters [EIS:AB,PT] were installed in accordance with the design control program while the Unit was in Cold Shutdown. On June 18, 1994, while Unit 2 remained in Cold Shutdown, technicians performed a field calibration on the newly installed Rosemount Model 1154SH pressure transmitters. On June 24, 1994 with the Reactor Coolant System [EIS:AB] at Hot Shutdown (547 degrees F, 2235 psig), technicians made calibration adjustments to the three pressurizer pressure protection transmitters. Unit 2 operated through the remainder of the fuel cycle and entered a refueling outage on February 3, 1995.

On February 10, 1995, with Unit 2 in Refueling Shutdown, technicians performing calibration checks discovered the As Found calibration data on the first of three pressurizer pressure protection transmitters was not within the allowable tolerance specified in the calibration procedure. The technicians replaced the pressure gauge used during the calibration, repeated the calibration checks, and confirmed that the As Found data for each of the three pressurizer pressure protection transmitters was not within allowable tolerance. The results of the As Found data for each of the three pressurizer pressure protection transmitters is listed below.

- 2-RC-PT-2455 was reading high by approximately 24 psig.
- 2-RC-PT-2456 was reading high by approximately 28.5 psig.
- 2-RC-PT-2457 was reading high by approximately 30 psig.

The As Found data for each transmitter was later determined to be higher (9 to 15 psig) than that indicated by the pressurizer pressure protection channels during unit operation. This difference is attributable to a shift that occurred when the protection transmitters cooled from unit operating temperature to Cold Shutdown. This phenomenon is discussed further in Sections 5.0 and 9.0.

A Deviation Report was submitted on February 14, 1995. Assistance was requested from Corporate Engineering's Instrumentation and Controls group. Their assessment of probable causes and possible consequences using the preliminary information gathered, was provided on February 20, 1995. The design change package used during installation of the transmitters was reviewed and personnel involved with the installation effort were questioned with no installation problems identified. Preliminary information indicated that the pressurizer pressure protection transmitters had been miscalibrated.

LICENSING EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
SURRY POWER STATION, Unit 2	05000 - 281	95	- 003 -	01	3 of 7

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

1.0 DESCRIPTION OF THE EVENT (Continuing)

A Root Cause Evaluation Team was assembled on February 23, 1995 in parallel with a request for a safety assessment from the Nuclear Analysis and Fuels Department. By February 24, 1995, sufficient reviews had been performed to determine that if reactor protection actuation had been required for certain transients during this event, some Technical Specification limits could have been exceeded, and a 30 day report was required in accordance with 10 CFR 50.73(a)(2)(i)(B).

On March 2, 1995, the Nuclear Analysis and Fuels Department completed an evaluation of the event's impact on existing safety analyses. Operation at rated power was bounded by existing analyses and within the plant's design basis. Nonetheless, a single cause resulted in independent protection functions being inoperable which is also a condition reportable in accordance with 10 CFR 50.73(a)(2)(vii).

The three pressurizer pressure protection transmitters provide input to the Reactor Protection System (RPS) [EIS:JC] and the Engineered Safety Features (ESF) [EIS:JE]. These three pressurizer pressure protection transmitters provide input for the high-pressure protection, low-pressure protection, and overtemperature delta T protection reactor trip functions. Also, an ESF actuation resulting in Safety Injection (SI) [EIS:BQ] occurs when a pressurizer low-low pressure condition exists. Technical Specification 3.7, Instrumentation Systems, provides the limiting conditions for these functions.

The postulated transients which could be impacted by any change in the pressurizer low-pressure reactor trip actuation function had been previously analyzed and reviewed. These transients were re-evaluated for the As Found condition of the transmitters. The evaluation concluded that operation at rated power remained conservatively bounded by existing analyses during the period the pressurizer pressure protection transmitters were not calibrated within their allowed tolerance. Nevertheless, the Technical Specifications limit of greater than or equal to 1860 psig for pressurizer low-pressure reactor trip actuation, TS 2.3.A.2.c, could have been exceeded if a postulated accident had occurred during this event. Consequently, Unit 2 had operated in a condition prohibited by Technical Specifications which is reportable in accordance with 10 CFR 50.73(a)(2)(i)(B).

The postulated transients that rely on the pressurizer low-low pressure safety injection actuation function were evaluated separately. The evaluation determined that the existing analyses would bound and conservatively account for the affects of the pressurizer pressure protection transmitters being calibrated above their allowed tolerance. Nevertheless, the Technical Specifications limit of greater than or equal to 1700 psig for pressurizer low-low pressure safety injection actuation, TS Table 3.7-4, Functional Unit 3, Channel Action "a", could have been exceeded if a postulated accident had occurred during this event. Consequently, Unit 2 had operated in a condition prohibited by Technical Specifications which is reportable in accordance with 10 CFR 50.73(a)(2)(i)(B).

LICENSING EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
SURRY POWER STATION, Unit 2	05000 - 281	95	- 003 -	01	4 OF 7

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

2.0 SAFETY CONSEQUENCES AND IMPLICATIONS

The impact of having three pressurizer pressure protection transmitters not calibrated within allowable tolerance was evaluated. The evaluation confirmed that existing margins of conservatism within the safety analyses offset any negative impact other than possibly exceeding Technical Specifications limits.

The fixed setpoint pressurizer high-pressure reactor trip remained operable and would have occurred sooner during a postulated accident with no negative consequences. The Technical Specifications limit of less than or equal to 2385 psig associated with the pressurizer high-pressure reactor trip actuation would not have been exceeded during this event if a postulated accident had occurred.

The allowable overtemperature delta T setpoint for this reactor trip function remained capable of performing its intended function throughout this event and would not have caused the function to exceed its Technical Specifications limit or safety analysis limit.

The postulated transients which could be impacted by any change in the pressurizer low-pressure reactor trip actuation function had been previously analyzed and reviewed. An evaluation concluded that operation at rated power during the period the pressurizer pressure protection transmitters were not calibrated within their allowed tolerance was conservatively bounded by existing analyses.

The postulated transients that rely on the pressurizer low-low pressure safety injection actuation function were evaluated separately. The evaluation determined that existing analyses would bound and conservatively account for the affects of the pressurizer pressure protection transmitters being calibrated above their allowed tolerance.

Based on the review of the safety analyses and calibration data for other protection transmitters, the health and safety of the public were not affected by this event.

3.0 CAUSE

The cause of this event resulted from technicians performing calibrations without accounting for sub-atmospheric containment conditions using a pressure gauge that was not temperature compensated. When calibrations were performed at Hot Shutdown, the Containment pressure was sub-atmospheric (approximately 9.7 psi). This condition introduced an error of approximately 5 psi since the low side of the pressurizer pressure protection transmitters were sealed at normal atmospheric pressure. The temperature difference between the Metrology Laboratory and the Unit 2 Containment Building [EIS:NH] while at Hot Shutdown, resulted in the pressure gauge that was not temperature compensated, incorrectly indicating above actual pressure conditions during the calibrations. Consequently, an error of approximately 10 psi (high) was induced on the three pressurizer pressure protection transmitters when the pressure gauge that was not temperature compensated, was used during the calibration adjustments made while at Hot Shutdown. These conditions resulted in each of the three pressurizer pressure protection transmitters being miscalibrated high by approximately 15 psi.

LICENSING EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (5)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
SURRY POWER STATION, Unit 2	05000 - 281	95	- 003 -	01	5 OF 7

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

4.0 IMMEDIATE CORRECTIVE ACTIONS

Technicians replaced the pressure gauge used during the first calibration check performed on February 10, 1995 and repeated the calibration check to confirm the accuracy of the finding.

The results of the calibration checks determined that the As Found data for the three pressurizer pressure protection transmitters was not within allowable tolerance. Due to Unit 2 being in Refueling Shutdown, no immediate safety concerns were associated with the pressure transmitters being outside their allowable tolerance. The pressure gauges used during the calibration checks were verified by the technicians to be properly calibrated and controlled within the Measuring and Test Equipment Program.

The results of the Unit 2 calibration effort were compared with the Unit 1 experience gained during similar transmitter replacements performed during the Unit 1 1994 refueling outage. Unit 1 did not experience any calibration difficulties. With Engineering's assistance, the Maintenance Supervisor reviewed the data with the manufacturer of the transmitters. The cause of the pressure transmitters being outside the allowable tolerance could not be immediately determined. A Deviation Report was submitted.

5.0 ADDITIONAL CORRECTIVE ACTIONS

Assistance was requested from Corporate Engineering's Instrumentation and Controls group. An assessment of probable causes and possible consequences, using the preliminary information gathered, was provided on February 20, 1995. The design change package used during installation of the transmitters was reviewed and personnel involved with the installation effort were questioned with no installation problems identified.

A Root Cause Evaluation Team was assembled on February 23, 1995 in parallel with a request for a safety assessment from the Nuclear Analysis and Fuels Department. The Nuclear Analysis and Fuels Department completed an evaluation of the event's impact on existing safety analyses. Operation at rated power remained bounded by existing analyses and within the plant's design basis.

LICENSING EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (5)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
SURRY POWER STATION, Unit 2	05000 - 281	95	- 003 -	01	6 OF 7

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

5.0 ADDITIONAL CORRECTIVE ACTIONS (Continued)

Additional Corrective Actions also included:

- A series of tests performed on the installed pressure transmitters. No unacceptable results were identified.
- A verification of the operability of the associated instrumentation in each protection channel. No problems were identified.
- A review of the pressurizer pressure protection transmitter calibration procedures. The review identified that no distinction is made between performing calibrations at normal atmospheric and sub-atmospheric conditions. These procedures were revised to include a precautionary statement to preclude their use at sub-atmospheric conditions.
- A review of the design control package and installation documentation. No problems were identified.
- A determination that the pressure gauge used during the calibrations was not temperature compensated. A series of tests performed on the pressure gauge indicated that the use of this gauge contributed directly to the calibration error (approximately 10 psi high). The pressure gauges that were not temperature compensated have been collected and are being held in locked storage for later disposition.
- A determination that the pressure gauge used during the calibrations was identified as having a torquing problem which occurred during assembly. This torquing problem contributed directly to the calibration error introduced at Cold Shutdown (June 18, 1994) and resulted in non-repeatable calibration results. This intermittent calibration error did not affect the subsequent calibration of the pressure transmitters at Hot Shutdown (June 24, 1994) and therefore, was not a factor during unit operation. The pressure gauge has been corrected and remains in locked storage for later disposition.
- An evaluation for human error. No human error issues were identified.
- A Nuclear Network Operating Experience search. No similar issues were identified.
- A review of the equipment that had been calibrated using the pressure gauge that was not temperature compensated and contained the manufacturer's flaw. No safety significant equipment required re-calibration.
- A review of the gauges in the Measuring and Test Equipment program which determined that other pressure gauges that were not temperature compensated, were in use. These gauges are restricted from use pending future disposition. The protection transmitters calibrated with other pressure gauges that were not temperature compensated, were reviewed. No other problems were found where transmitters were calibrated outside of specified tolerances.
- A series of tests performed on similar transmitters. The testing indicated that a zero shift occurs with changes in temperature. This shift occurred when the protection transmitters cooled from operating temperature to Cold Shutdown and accounted for approximately 9 to 15 psig of the February 10, 1995, As Found calibration data.

LICENSING EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
SURRY POWER STATION, Unit 2	05000 - 281	95	- 003 -	01	7 of 7

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

6.0 ACTIONS TO PREVENT RECURRENCE

The Root Cause Evaluation (RCE) was completed on April 19, 1995. The RCE contains several recommendations for enhancements that are being implemented, including an in-depth Quality Assurance audit of the Measuring and Test Equipment Program.

A summary of areas affected by RCE recommendations is provided below:

- Measuring and Test Equipment Program.
- Use of pressure gauges that are not temperature compensated.
- The Measuring and Test Equipment Program gauge calibration process.
- The procurement process.
- Training programs.
- Procedures

7.0 SIMILAR EVENTS

The following Licensee Event Reports for Surry Units 1 and 2 exceeded Technical Specification limits due to a common cause, though not similar to this event. No similar LERs were identified in which Technical Specification limits were exceeded due to faulty calibration equipment.

- LER S1-92-002, Undervoltage Relay Trip Setpoints Set Below Technical Specifications Limit Due to Procedure Error.
- LER S1-82-109, Steam Flow Setpoints greater than Technical Specification Limits Due to Calculation Error.

8.0 MANUFACTURER/MODEL NUMBER

Manufacturer: Heise
Model: CMM
Serial Number: 113194

Manufacturer: Rosemount
Model: 1154SH
Serial Numbers: 508046, 508048, 508050

9.0 ADDITIONAL INFORMATION

The transmitter shift associated with changes in temperature is being further evaluated. Appropriate actions will be taken upon the completion of the evaluation.