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 FACIL: 50-281 Surry Power Station, Unit 2, Virginia Electric & Power 05000281
 AUTH. NAME AUTHOR AFFILIATION
 KANSLER, M.R. Virginia Power (Virginia Electric & Power Co.)
 RECIP. NAME RECIPIENT AFFILIATION

SUBJECT: LER 92-008-00: on 921215, RCS leak identified near low pressure letdown flow transmitter. Caused by failure of Swagelock fitting on flow transmitter. Root cause evaluation in progress & fitting & tube replaced. W/921231 ltr.

DISTRIBUTION CODE: IE22T COPIES RECEIVED: LTR 1 ENCL 1 SIZE: 4
 TITLE: 50.73/50.9 Licensee Event Report (LER), Incident Rpt, etc.

NOTES: 1cy NMSS/SCDB/PM.

05000281

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Virginia Electric and Power Company
 Surry Power Station
 P. O. Box 315
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December 31, 1992

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

Serial No.: 92-829
 SPS:VAS
 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

50-281/92-008-00

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,



M. R. Kansler
 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

050043

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ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Surry Power Station, Unit 2	DOCKET NUMBER (2) 0 5 0 0 0 2 8 1 1	PAGE (3) 1 OF 0 3
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TITLE (4) Reactor Coolant System Leak Rate Greater Than 10 GPM Due to Failure of a Swagelok Fitting on a Flow Transmitter

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)
1	2	1 5 9 2 9 2	9 2	0 0 8	0 0	1	2	3 1 9 2			0 5 0 0 0
											0 5 0 0 0

OPERATING MODE (9) N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)				
POWER LEVEL (10) 1 0 0	20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)	
	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)	X 50.73(a)(2)(i) (B)	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 M. R. Kansler, Station Manager	TELEPHONE NUMBER AREA CODE: 8 0 4 3 5 7 - 3 1 8 4

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
X	C B	T B G	C 6 8 5	N						
X	C B	F I T	R 3 6 9	Y						

SUPPLEMENTAL REPORT EXPECTED (14)		EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)	<input checked="" type="checkbox"/> NO				

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

On December 15, 1992, at 0858 hours, with Units 1 and 2 at 100% reactor power, Radiological Protection technicians notified the Unit 2 Senior Reactor Operator (SRO) that a Reactor Coolant System (RCS) leak had developed near the Low Pressure Letdown Flow Transmitter. The leak was determined to be in excess of the maximum RCS leakage rate permitted by Technical Specification (TS) 3.1.C.5. A Limiting Condition for Operation (LCO) requiring hot shutdown within six hours was entered at 0858 hours. The LCO was exited at 0901 hours once letdown was isolated. A four hour LCO was entered at 0901 hours to identify the leak in accordance with TS 3.1.C.2. RCS leakage was verified to be less than 1 gallon per minute (gpm) at 0940 hours and the LCO was exited. The leakage occurred when a section of drain valve tubing for the Low Pressure Letdown Flow Transmitter separated from its fitting. It was determined that the release of radioactivity to the environment was negligible based on indications from the Ventilation System Process Radiation Monitors; therefore, the health and safety of the public were not affected. A Root Cause Evaluation (RCE) is being conducted to determine the exact cause of this event. Recommendations will be implemented from the RCE, as appropriate. This event is reportable pursuant to 10CFR50.73(a)(2)(i)(B).

**LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION**

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, 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) 0 5 0 0 0 2 8 1	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
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TEXT (If more space is required, use additional NRC Form 366A's) (17)

1.0 DESCRIPTION OF THE EVENT

On December 15, 1992, at 0858 hours, with Units 1 and 2 at 100% reactor power, a Reactor Coolant System (RCS) [EIIS-AB] leak was identified near the Low Pressure Letdown Flow Transmitter (2-CH-FT-2150) [EIIS-CB-FIT]. While performing decontamination activities in a high radiation area, a decontamination technician noticed water and boric acid on a "Swagelok" fitting on the flow transmitter. He wiped the boric acid off and saw water dripping out of the fitting. While the technician was placing a leak catch container around the drain line tubing, the drain tubing separated from a Swagelok fitting, significantly increasing the leakage. Radiological Protection (RP) technicians immediately notified the Unit 2 Senior Reactor Operator (SRO) of the leak. The SRO determined that the leakage met entry conditions for Abnormal Procedure, "Excessive RCS Leakage," (AP-16). At 0858 hours, Unit 2 was placed in a six hour Limiting Condition for Operation (LCO) to hot shutdown (HSD) in accordance with Technical Specification (TS) 3.1.C.5 which allows a maximum unidentified leakage of 10 gallons per minute (gpm) from the RCS. In accordance with AP-16, level control valves (2-CH-LCV-2460A/B and 2-CH-HCV-2200A/B/C) [EIIS-CB-LCV] were closed to isolate letdown. Motor Operated Valve (2-CH-MOV-2289B) [EIIS-CB-FCV] was shut to isolate normal charging. Subsequent review determined that leakage was approximately 11 gpm calculated from a level drop noted on the control room recorder for the Volume Control Tank (VCT) [EIIS-CB] level. The LCO was exited at 0901 hours. In accordance with TS 3.1.C.2, which limits unidentified leakage to less than 1 gpm, a four hour LCO to identify the leak was entered at 0901 hours. Operating Procedure, "Shifting From Normal Letdown To Excess Letdown," (2-OP-8.8.1) was used to place excess letdown in service. An operator was dispatched to determine the exact cause of the leak. The operator reported that a section of drain valve tubing for the flow transmitter had separated from a Swagelok fitting, creating the RCS leak. The operator isolated the leak by closing the high side isolation valve to the transmitter. At 0940 hours, RCS leak rate was verified to be less than 1 gpm. VCT and Pressurizer [EIIS-AB-PZR] trends had stabilized and the four hour LCO was exited.

2.0 SIGNIFICANT SAFETY CONSEQUENCES AND IMPLICATIONS

A limited amount of leakage from the RCS is expected. The maximum allowable TS values for RCS leakage are 1 gpm from unidentified sources and 10 gpm for identified sources. These values are sufficiently low to ensure corrective actions are taken prior to the leakage becoming excessive. Leak rate calculations are performed once per day, or more often if required. During this event, normal charging was in service and was able to compensate for RCS leakage. RP technicians immediately evacuated personnel from the affected area and notified the Control Room of the leak. The leak was immediately isolated in accordance with AP-16. The amount of radioactive gases released into the Auxiliary Building basement during this event, as indicated on the Ventilation System Process Radiation Monitors [EIIS-VF-MON],

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		9 2	— 0 0 8	— 0 0	0 3	OF	0 3

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

was negligible. Access to the Auxiliary Building was promptly restricted and filtered exhaust was placed in service. The affected area was reclaimed at 1115 hours. Local air sample testing detected minimal airborne radioactivity which was rapidly removed via the Auxiliary Building ventilation system. Therefore, the health and safety of the public were not affected.

3.0 CAUSE OF THE EVENT

While performing decontamination activities in a high radiation area, a decontamination technician noticed water and boric acid on a Swagelok fitting on the Low Pressure Letdown Flow Transmitter. He wiped the boric acid off and saw water dripping out of the fitting. While the technician was placing a leak catch container around the drain line tubing, the drain tubing separated from a Swagelok fitting, significantly increasing the leakage from the RCS. A Root Cause Evaluation (RCE) is in progress to determine the exact cause of the event.

4.0 IMMEDIATE CORRECTIVE ACTION(S)

Prompt and accurate communication between RP personnel and the Control Room enabled operators to immediately control and isolate the leakage. RP technicians immediately evacuated the area. The operations shift performed the required procedures and isolated the leakage path. The fitting and tubing were replaced by maintenance personnel and at 1332 hours normal letdown was returned to service.

5.0 ADDITIONAL CORRECTIVE ACTION(S)

A RCE is being performed to determine the exact cause of failure. Recommendations from the RCE will be implemented, as appropriate. Instrumentation and Control technicians are currently checking similar fittings to ensure correct assembly.

6.0 ACTIONS TO PREVENT RECURRENCE

Actions to prevent recurrence will be based on the results of the RCE.

7.0 SIMILAR EVENTS

LER S1-90-08, "RCS Leakage Exceeds 10 gpm Due to Gage Sensing Line Break".

8.0 MANUFACTURER/MODEL INFORMATION

Crawford Fitting Company
Swagelok Tube Fitting
SS-812-1