POW 28-06-01

NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/85

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
SURRY POWER STATION, UNIT 1	0 5 0 0 0 2 8 0	1 OF 0 2

TITLE (4)

#3 EDG FIRE

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 8	8 4	8 4	— 0 2 7	— 0 0	0 1	2 8	8 5	SURRY, UNIT 2	0 5 0 0 0 2 8 1
										0 5 0 0 0

OPERATING MODE (9)	N
POWER LEVEL (10)	0 0 0

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)

20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
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)	50.73(a)(2)(vii)	X 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)	"SPECIAL"

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
	AREA CODE
R. F. SAUNDERS, STATION MANAGER	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	
E	D C	D G	E 1 4 7	Y							

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 fifteen single-space typewritten lines) (16)

On December 18, 1984, during surveillance testing of the #3 Emergency Diesel Generator, a fire occurred in the vicinity of the turbocharger. The engine was shutdown and the fire extinguished when the fixed low pressure CO_2 system was activated. The engine was repaired and returned to service on 12/20/84.

The fire was caused by a leaking fitting on a fuel injector line which allowed fuel oil to leak into the lube oil. As a result, the turbocharger thrust bearings failed and a small crankcase explosion and fire in the turbocharger ensued.

This report is submitted at the request of the Resident NRC Inspector as a significant operating event.

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NRC Form 366A (9-83)

U.S. NUCLEAR REGULATORY COMMISSION

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
SURRY POWER STATION, UNIT 1	0 5 0 0 0 2 8 0	8 4	— 0 2 7	— 0 0	0 2 OF 0 2

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

1. Description of the Event

On December 18, 1984, Unit 1 was preparing for a startup following a refueling outage and Unit 2 was at 89% power when at 0705 hours, the #3 Emergency Diesel Generator (#3 EDG) was started for surveillance testing. At 0736, MWe output indication went to 0%, the generator output breaker was manually opened and the engine was shutdown. At 0743 hours, the operator who was sent to the #3 EDG Room to investigate reported a fire in the vicinity of the turbocharger. The fire brigade responded and attempted to extinguish the fire with portable extinguishers, but several reflashes occurred. The room was evacuated and the fixed low pressure CO_2 system was activated. At 0755 hours, the Shift Supervisor initiated the Station Emergency Plan and declared an Unusual Event (fire lasting more than 10 minutes), and the appropriate offsite agencies were notified. The fire was declared out at 0805 hours and the Unusual Event was terminated at 0840 hours.

2. Probable Consequences

The Emergency Power System is an on-site, independent, automatically starting power source. It supplies power to the Station Emergency Buses if a normal power source is not available. The Emergency Power System consists of three Diesel Generators for two units. #1 EDG is used exclusively for unit 1, #2 EDG for unit 2, and the #3 EDG functions as a backup for either unit. Since the EDG's were not needed at this time and the fire in #3 EDG room did not affect the availability of the other EDG's, the health and safety of the public were unaffected.

3. Cause

A leaking fitting on a fuel injector line allowed fuel oil to leak into the lube oil. The lube oil became diluted to approximately 40% fuel oil. The fuel oil changed the viscosity of the lube oil causing failure of the turbocharger thrust bearings. A small crankcase explosion and a fire in the turbocharger ensued.

4. Immediate Corrective Action

The #3 EDG was shutdown and the fire brigade responded to the scene. Attempts to put out the fire with portable extinguishers were unsuccessful. The #3 EDG room was evacuated and the fixed low pressure CO_2 system was activated.

5. Subsequent Corrective Action

An Electro-Motive Division factory representative and technical consultants were called to the station to evaluate the cause of the fire and recommend corrective actions. Following their recommendations, repairs were made and the #3 EDG was returned to service at 2101 hours on 12/20/84. Lube oil samples from #1 and #2 EDG's were analyzed and no fuel oil was detected.

Vepco

VIRGINIA ELECTRIC AND POWER COMPANY
Surry Power Station
P. O. Box 315
Surry, Virginia 23883

Serial No: 84-047

January 28, 1985

Docket No: 50-280

License No: DPR-32

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

Gentlemen:

Pursuant to Surry Power Station Technical Specifications, the Virginia Electric and Power Company hereby submits the following Licensee Event Report for Surry Unit 1.

REPORT NUMBER

84-027-00

This report has been reviewed by the Station Nuclear Safety and Operating Committee and will be reviewed by Safety Evaluation and Control.

Very truly yours,

R F Saund

R. F. Saunders
Station Manager

Enclosure

cc: Mr. James P. O'Reilly
Regional Administrator
Suite 2900
101 Marietta Street, NW
Atlanta, Georgia 30323

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