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)
Arkansas Nuclear One, Unit Two	0 5 0 0 0 3 6	8 1 OF 0 1

TITLE (4) Reactor Trip Due To Turbine Trip Caused By Loss Of Generator Excitation

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 2	0 4	8 5	8 5	0 0 4	0 0	0 3	0 6	8 5		0 5 0 0 0
										0 5 0 0 0

OPERATING MODE (9)	1	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)	X	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)	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	Telephone Number (Area Code)
Patrick C. Rogers, Plant Licensing Engineer	5 0 1 9 6 4 - 3 1 0 0

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	T L	E X C	G 0 8 0	N					

SUPPLEMENT REPORT EXPECTED (14)	EXPECTED SUBMISSION DATE (15)	Month	Day	Year
☐ Yes (If yes, complete Expected Submission Date) ☒ No				

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

On 2/4/85 at 2234 hours, an automatic reactor trip occurred while in Mode 1 at 100% full power (FP). A loss of main generator field excitation caused a turbine generator trip resulting in a high reactor coolant system pressure reactor trip. Emergency feedwater automatically initiated due to normal post trip steam generator volume "shrink"; manual control was taken to maintain the desired steam generator levels. The Steam Dump and Bypass Control System (SDBCS) failed to control steam pressure in automatic; manual control was taken to maintain the desired steam pressure. A loose connector problem in the SDBCS master controller was corrected and the SDBCS was returned to automatic. Investigation into the cause of the loss of excitation revealed that a pilot exciter brush had lodged between the brush guide and brush spring arm. This caused arcing in the slip ring areas and resulted in a loss of excitation control. The root cause was determined to be that the brush was too short due to wear. The slip rings were machined and re-installed and the exciter brushes were replaced. Brush inspection has been increased to once per 14 days and brush replacement criteria have been added to the inspection. Training regarding commutator preventative maintenance has been presented to the electrical maintenance personnel.

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ARKANSAS POWER & LIGHT COMPANY
POST OFFICE BOX 551 LITTLE ROCK, ARKANSAS 72203 (501) 371-4000

March 6, 1985

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Document Control Desk
Washington, D.C. 20555

Subject: Arkansas Nuclear One - Unit 2
Docket No. 50-368
License No. NPF-6
Licensee Event Report
No. 84-004-00

Gentlemen:

In accordance with 10CFR50.73(a)(2)(iv), attached is the subject report concerning an automatic reactor trip due to a turbine generator trip caused by a loss of main generator field excitation.

Very truly yours,

J. Ted Enos
Manager, Licensing

JTE:RJS:ds

Attachment

cc: Mr. Richard C. DeYoung
Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
Washington, DC 20555

Mr. Norman M. Haller, Director
Office of Management & Program Analysis
U. S. Nuclear Regulatory Commission
Washington, DC 20555

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