NRC Form 366

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/88

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
St. Lucie, Unit One	0 5 0 0 0 3 3 5	1 OF 0 3

TITLE (4)

Spurious Containment Isolation Actuation Signal During Maintenance

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 1	2 0	8 6	8 6	0 0 1	0 0	0 2	1 9	8 6	N/A	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)	0 9 9	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
R. L. Kulavich, Shift Technical Advisor	3 0 5 4 6 5 - 3 5 5 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	

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)

EVENT:

A spurious Containment Isolation Actuation Signal (BD) (CIAS) was generated during the semi-annual alignment check of the Engineered Safeguards Equipment (JE) automatic test circuit. All components actuated by CIAS functioned as designed. The plant design is such that the CIAS actuated components did not cause a reactor trip. The operators reset the CIAS and restored all affected equipment to the normal line up. The alignment check was completed satisfactorily following the investigation of the spurious CIAS.

CORRECTIVE ACTIONS AND ROOT CAUSES:

A definite cause for the spurious CIAS could not be determined. The investigation ruled out personnel error and procedural deficiency. The most likely cause of the spurious signal was a static electrical discharge. Corrective actions included resetting the CIAS and restoring all affected equipment to the normal operating line-up. The alignment check was completed satisfactorily following the investigation of the spurious CIAS. This is the first LER of this type for Plant St. Lucie.

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FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
St. Lucie, Unit One	0 5 0 0 0 3 3 5	8 6	— 0 0 1	— 0 0	0 2 OF 0 3

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

EVENT:

The event occurred at 0851 on January 20, 1986. The reactor was at 99 percent power. The semi-annual alignment check of the automatic tester circuit of the Engineered Safeguards Equipment (JE) was in progress. The Instrument and Controls (I&C) technician was connecting an oscilloscope to the equipment as directed by the procedure (I&C Procedure 1400166). A Containment Isolation Actuation Signal (BD) (CIAS) was actuated on both A and B trains of CIAS. All CIAS actuated equipment functioned as designed. The control room operators evaluated the CIAS and determined the actuation was spurious. The operators then reset the CIAS and restored the affected equipment to the normal line-up. The alignment check procedure was completed satisfactorily after the investigation of the spurious CIAS.

ROOT CAUSE OF THE EVENT:

A definite cause for the spurious CIAS could not be determined. Instrument and Controls (I&C) personnel were performing the alignment check in accordance with an approved procedure (I&C Procedure 1400166). Investigation of the event ruled out personnel error and procedural deficiency because;(1) The same procedure had been performed without problems previous to this event and since that time no changes were made to affect this particular circuit, and (2) All test equipment connections were verified to be correct as per the procedure.

The I&C technician reported an electrical spark from his oscilloscope lead to the test circuit had preceded the CIAS.

On the day of the event unusually cool, dry weather allowed a static electrical charge to build up on personnel walking across the control room carpeting. A plausible explanation for the spark and subsequent spurious CIAS would be a static electrical discharge from the I&C technicians oscilloscope probe to the tester circuit. This explanation is enhanced by the fact that the procedure calls for the oscilloscope to be "floated",or removed from its normally grounded condition. Due to plant operating conditions no attempt was made to duplicate the event. The alignment check was completed without further problems by observing static discharge precautions while connecting test equipment.

ANALYSIS OF EVENT:

This event was evaluated and determined to be of no consequence because no abnormal plant conditions were created by the CIAS. Of most concern to plant operations was the isolation of the charging and letdown (CB) systems but these systems were isolated for a very brief period of time, three minutes or less. The health and safety of the public were not affected by this event.

CORRECTIVE ACTIONS:

The immediate corrective action was to evaluate the CIAS for validity. The control room operators determined the CIAS to be spurious, then reset the CIAS and restored all affected equipment to the normal line-up. The alignment check was halted to investigate the cause for the spurious CIAS but was later completed without problem after the investigation. The possibility of spurious signals due to static discharge has been discussed among I&C personnel.

This is the first LER of this type for Plant St. Lucie.

FLORIDA POWER & LIGHT COMPANY

FEB 1 9 1986

L-86-69

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

Gentlemen:

Re: Reportable Event 86-1
St. Lucie Unit 1
Date of Event: January 20, 1986
Spurious Containment Isolation Actuation Signal During Maintenance

The attached Licensee Event Report is being submitted pursuant to the requirements of 10 CFR to provide notification of the subject event.

Very truly yours,

C.O. Woody
Group Vice President
Nuclear Energy

COW/SAV:dh

Attachment

cc: Dr. J. Nelson Grace, Region II, USNRC
Harold F. Reis, Esquire
File 933.1
PNS-LI-86-53

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