

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 8711190206 DOC. DATE: 87/11/16 NOTARIZED: NO  
 FACIL: 50-335 St. Lucie Plant, Unit 1, Florida Power & Light Co.  
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 RECIP. NAME RECIPIENT AFFILIATION

DOCKET #  
05000335

SUBJECT: LER 87-015-00: on 871014, Mode 4 entered w/o shield bldg integrity. Caused by inadequate procedural controls of shield bldg doors once checked as being closed. Operating Procedure 1-0030120 will be revised. W/871116 ltr.

DISTRIBUTION CODE: IE22D COPIES RECEIVED: LTR 1 ENCL 1 SIZE: 5  
 TITLE: 50:73 Licensee Event Report (LER), Incident Rpt, etc.

NOTES:

	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL
	PD2-2 LA TOURIGNY, E	1 1 1 1	PD2-2 PD	1 1
INTERNAL:	ACRS MICHELSON	1 1	ACRS MOELLER	2 2
	AEOD/DOA	1 1	AEOD/DSP/NAS	1 1
	AEOD/DSP/ROAB	2 2	AEOD/DSP/TPAB	1 1
	ARM/DCTS/DAB	1 1	DEDRO	1 1
	NRR/DEST/ADS	1 0	NRR/DEST/CEB	1 1
	NRR/DEST/ELB	1 1	NRR/DEST/ICSB	1 1
	NRR/DEST/MEB	1 1	NRR/DEST/MTB	1 1
	NRR/DEST/PSB	1 1	NRR/DEST/RSB	1 1
	NRR/DEST/SGB	1 1	NRR/DLPQ/HFB	1 1
	NRR/DLPQ/QAB	1 1	NRR/DOEA/EAB	1 1
	NRR/DREP/RAB	1 1	NRR/DREP/RPB	2 2
	NRR/DRIS/SIB	1 1	NRR/PMAS/ILRB	1 1
	REG FILE 02	1 1	RES DEPY GI	1 1
	RES TELFORD, J	1 1	RES/DE/EIB	1 1
	RGN2 FILE 01	1 1		
EXTERNAL:	EG&G GROH, M	5 5	H ST LOBBY WARD	1 1
	LPDR	1 1	NRC PDR	1 1
	NSIC HARRIS, J	1 1	NSIC MAYS, G	1 1

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) <b>St. Lucie Unit 1</b>	DOCKET NUMBER (2) <b>0 5 0 0 0 3 3 5 1</b>	PAGE (3) <b>1 OF 0 4</b>
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TITLE (4) **Unit Mode Change Without Shield Building Integrity Due To A Procedural Error**

EVENT DATE (5)			LER NUMBER (8)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)			
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES			
									N/A			
<b>1 0 1 4</b>	<b>8 7</b>	<b>8 7</b>	<b>0 1 5</b>	<b>0 0</b>	<b>1 1 1 6</b>	<b>8 7</b>				DOCKET NUMBER(S) <b>0 5 0 0 0</b>		

OPERATING MODE (9) <b>4</b>	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)									
POWER LEVEL (10) <b>0 1 0 0</b>	<input type="checkbox"/> 20.402(b)	<input type="checkbox"/> 20.406(c)	<input type="checkbox"/> 50.73(a)(2)(iv)	<input type="checkbox"/> 73.71(b)						
	<input type="checkbox"/> 20.406(a)(1)(i)	<input type="checkbox"/> 50.38(c)(1)	<input type="checkbox"/> 50.73(a)(2)(v)	<input type="checkbox"/> 73.71(c)						
	<input type="checkbox"/> 20.406(a)(1)(ii)	<input type="checkbox"/> 50.38(c)(2)	<input type="checkbox"/> 50.73(a)(2)(vi)	OTHER (Specify in Abstract below and in Text, NRC Form 365A)						
	<input type="checkbox"/> 20.406(a)(1)(iii)	<input checked="" type="checkbox"/> 50.73(a)(2)(i)	<input type="checkbox"/> 50.73(a)(2)(vii)(A)							
	<input type="checkbox"/> 20.406(a)(1)(iv)	<input type="checkbox"/> 50.73(a)(2)(ii)	<input type="checkbox"/> 50.73(a)(2)(vii)(B)							
<input type="checkbox"/> 20.406(a)(1)(v)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(ix)								

LICENSEE CONTACT FOR THIS LER (12)		TELEPHONE NUMBER	
NAME <b>S. E. Mohn, Shift Technical Advisor</b>		AREA CODE <b>3 0 5</b>	<b>4 6 5 - 3 5 5 0</b>

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
<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 14 October, 1987, Unit 1 violated Technical Specifications by entering Mode 4 (<325 deg.) without Shield Building integrity. The error was discovered 8.5 hours later by a licensed operator performing a surveillance on the Shield Building Ventilation System (SBVS). The root cause of the event was due to inadequate procedural controls of the Shield Building doors once they have been checked as being closed. Contributing causes were cognitive personnel errors by licensed and non-licensed operators when a second check sheet performed to check Shield Building integrity was improperly reviewed. Operating procedure 1-0030120 "Prestart Check-Off List" will be revised to include stricter controls on the Shield Building doors. Operating Personnel have been counseled on proper paperwork review. Training Department will review the event for appropriate training requirements and methods.

The opened door did not appreciably reduce the containments protection from external missiles or the biological shielding to plant personnel since the door is protected by various external concrete structures. Due to conservative assumptions made in the Unit #1 FUSAR and the ability of the SBVS to still perform its required safety function, the opened door would not have resulted in a significant increase of fission products during a major hypothetical accident.

*Handwritten initials: F 22*

8711190206 871116  
PDR ADDCK 05000335  
S PDR

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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		87	0115	00	02	OF

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

DESCRIPTION OF EVENT

On 13 October 1987, St. Lucie Unit 1 was in Mode 5 (<200 deg.) with preparations underway to commence primary system (EIIS:AB) heatup to Mode 4 (<325 deg.). As part of the Operating Procedure "Prestart Check-Off List", Containment and Shield Building (EIIS:NH) integrity is required to be established prior to exceeding 200 degrees. Early on 14 October 1987, non-licensed operators had completed the Data Sheet #3, "Containment and Shield Building Integrity", of Administrative Procedure No. 1-0010125A. Data Sheet #3 verifies that Containment and Shield Building penetrations, hatches, and airlocks are in their required condition. The East and West Shield Building access doors are included on this check sheet with a required position of "closed". These doors allow access from outside of the Shield Building to the annulus between the Containment and the Shield Building.

Later that same day, while still in Mode 5, the next shift, upon reviewing the Prestart Check-Off List paperwork, was unable to find the completed Data Sheet #3. Step 8.3.11 of the Prestart Check-Off List, which requires the completion of a Data Sheet #3, was signed off as having been completed. As a precaution, the Unit #1 Assistant Nuclear Plant Supervisor (ANPS) directed that another Data Sheet #3 be completed.

The non-licensed operator conducting the Data Sheet #3 found the West Shield Building access door open. The non-licensed operator left its "initial blank" unsigned and continued with the rest of the items on the check sheet. Upon completion of the Data Sheet #3, the non-licensed operator returned it to the licensed operators in the Unit #1 Control Room. The ANPS reviewed the check sheet but did not notice the one unsigned "initial blank" for the West Shield Building access door. At 1521 hrs. on 14 October, Unit #1 entered Mode 4.

At 2349 hrs. on 14 October 1987, the licensed operator started the Shield Building ventilation system (EIIS:VC) as part of the required monthly surveillances. The licensed operator soon noticed that he was not getting the pressure changes expected during the operation of the Shield Building ventilation system. The ANPS was alerted and an investigation was commenced. At 2355 hrs. the West Shield Building access door was found open. The door was immediately shut. The time from entering Mode 4 to when the door was shut was 8.5 hours.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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		0   1   5 -	0   0	0   3	OF	0   4

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

CAUSE OF EVENT

The root cause of the event was due to a procedural error in Operating Procedure 1-0030120 "Prestart Check-Off List". Once the doors have been initialed as being "closed", the procedure did not procedurally invoke any form of controls on opening of the doors. Had security been notified to invoke control on opening of the doors after the completion of the initial Data Sheet #3, security would then have been required to get permission from the Nuclear Plant Supervisor (NPS) or the ANPS prior to opening of the Shield Building doors. This would have keyed the NPS/NPS that the Shield Building integrity was about to be breached.

The cognitive personnel errors of the non-licensed operator and the licensed ANPS were only contributing factors in this event. Had the non-licensed operator informed the ANPS of the opened door or if the ANPS had noticed the missing initial for the open door, the event may have been avoided. However, the NPS/ANPS still would not have had strict control of the Shield Building doors. It would have been possible for the doors to have been opened again by someone without specific authorization from he NPS/ANPS.

ANALYSIS OF EVENT

This event is considered reportable under 10 CFR 50.73.a.2.i, "Any operation or condition prohibited by Technical Specifications", since Unit #1 entered and remained in Mode 4 without Shield Building integrity for 8.5 hours.

The Shield Building is a medium leakage concrete structure which surrounds the steel containment vessel. It protects the containment vessel from external missiles, provides biological shielding, and a means of collecting radioactive fission products that may leak from he containment following a major hypothetical accident (MHA). The west door open did not appreciably reduce the containment's protection from external missiles or the biological shielding to plant personnel. Shield Building integrity was not required for the collection of fission products since a MHA did not occur.

Having the west door open during a MHA may result in a slightly higher radioactive release to the environment; however, the levels which might be released should not differ significantly from what is assumed in the FUSAR's analysis (Unit #1 FUSAR section 6.2.3 "Shield Building Ventilation System). Prior to the start of the Shield Building Ventilation System (SBVS) during a MHA, the analysis already assumes that all fission products which leak through the containment vessel reaches the environment

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		8   7	-   0   1   5	-   0   0	0   4	OF 0   4

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

unfiltered.. Once the SBVS starts it will draw a negative pressure in the annulus and the inflow of air through the opened door would keep the fission products from escaping. Therefore, the SBVB's ability to perform its required function could be degraded by having the door opened but would not be significantly affected.

CORRECTIVE ACTIONS

1. Operating Procedure 1-0030120 "Prestart Check-Off List" will be revised to incorporate stricter controls on opening the Shield Building doors following the completion of the Data Sheet #3 of Administrative Procedure 1-0010125A.
2. Operations personnel have been counseled on the proper review of their logs and check sheets.
3. Training Department will review this event for appropriate training requirements and methods.

ADDITIONAL INFORMATION

FAILED COMPONENT IDENTIFICATION

None

PREVIOUS SIMILAR EVENTS:

The last previous similar event LER #335-82-19 where contract maintenance personnel partially blocked open a door with hoses and electrical leads.



NOVEMBER 16 1987

L-87-473  
10 CFR 50.73

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

Gentlemen:

Re: St. Lucie Unit 1  
Docket No. 50-335  
Reportable Event: 87-15  
Date of Event: October 14, 1987  
Unit Mode Change Without Shield Building Integrity  
Due to a Procedural Error

The attached Licensee Event Report is being submitted pursuant to the requirements of 10 CFR 50.73 to provide notification of the subject event.

Very truly yours,

*for* C. O. Woody  
Group Vice President  
Nuclear Energy

COW/GRM/gp

cc: Dr. J. Nelson Grace, Regional Administrator, Region II, USNRC  
Senior Resident Inspector, USNRC, St. Lucie Plant

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