

## ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

## REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 9103200136 DOC. DATE: 91/03/14 NOTARIZED: NO DOCKET #  
 FACIL: 50-251 Turkey Point Plant, Unit 4, Florida Power and Light C 05000251  
 AUTH. NAME AUTHOR AFFILIATION  
 POWELL, D.R. Florida Power & Light Co.  
 PLUNKETT, T.F. Florida Power & Light Co.  
 RECIP. NAME RECIPIENT AFFILIATION

SUBJECT: LER 91-001-00: on 910313 startup transformer deenergized due to construction activities taking place to modify control room control board. Event response team has been appointed to complete investigation. W/910314 ltr.

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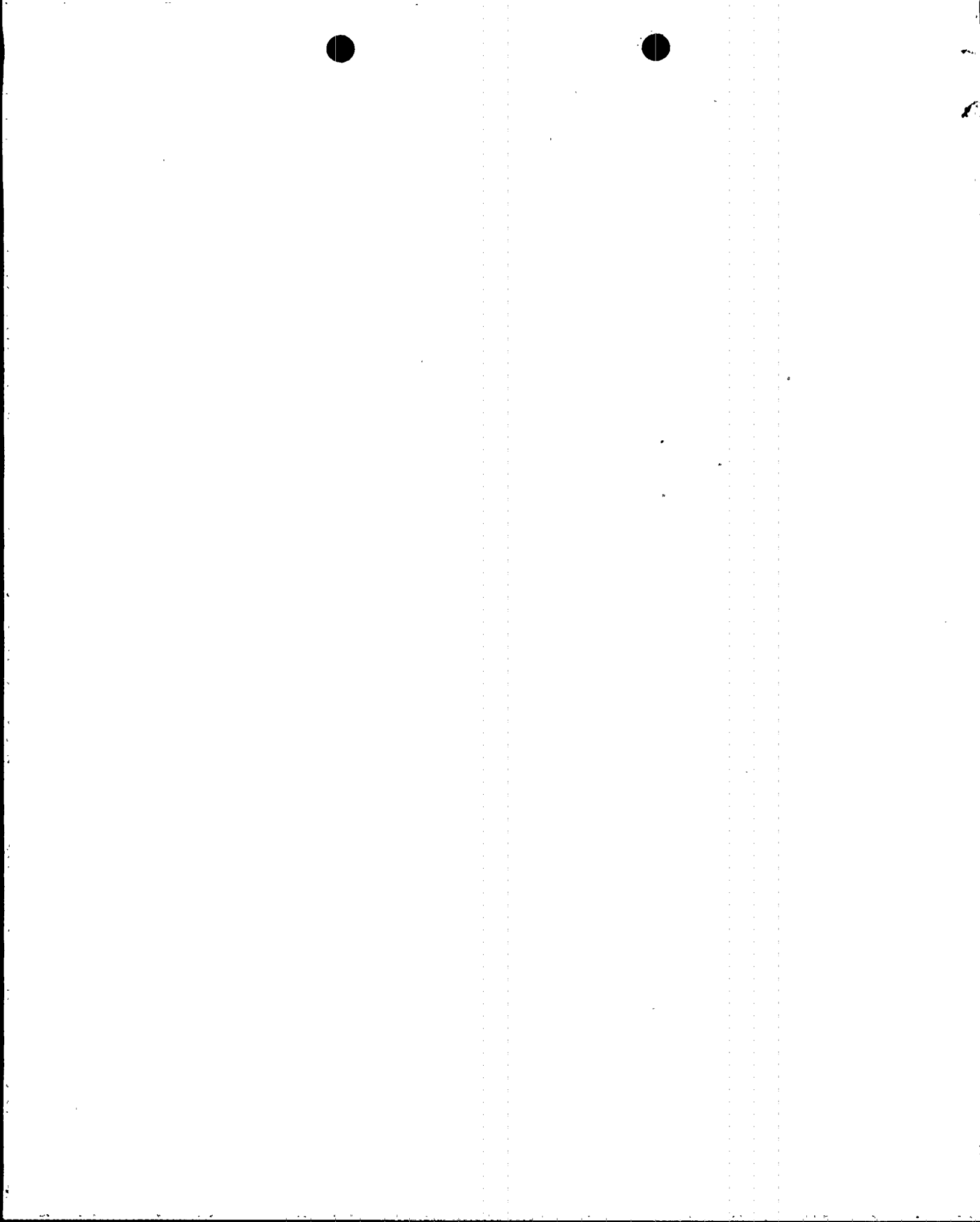
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	NRR/DET/ECMB 9H	1 1	NRR/DET/EMEB 7E	1 1
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MAR 14 1991

L-91-083  
10 CFR 50.73

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

Gentlemen:

Re: Turkey Point Unit 4  
Docket No. 50-251  
Reportable Event: 91-001-00  
Date of Event: March 13, 1991  
Unit 4 Startup Transformer De-energized

The attached Licensee Event Report 251-91-001-00 is being provided in accordance with the requirements of 10 CFR 50.73.

Upon completion of the investigation of the event, a revision to this LER will be provided. The supplemental LER will be provided by April 12, 1991.

Very truly yours,

T. F. Plunkett  
Vice President  
Turkey Point Nuclear

TFP/DPS/ds

enclosures

cc: Stewart D. Ebnetter, Regional Administrator, Region II,  
USNRC,  
Senior Resident Inspector, USNRC, Turkey Point Plant

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PDR ADOCK 05000251  
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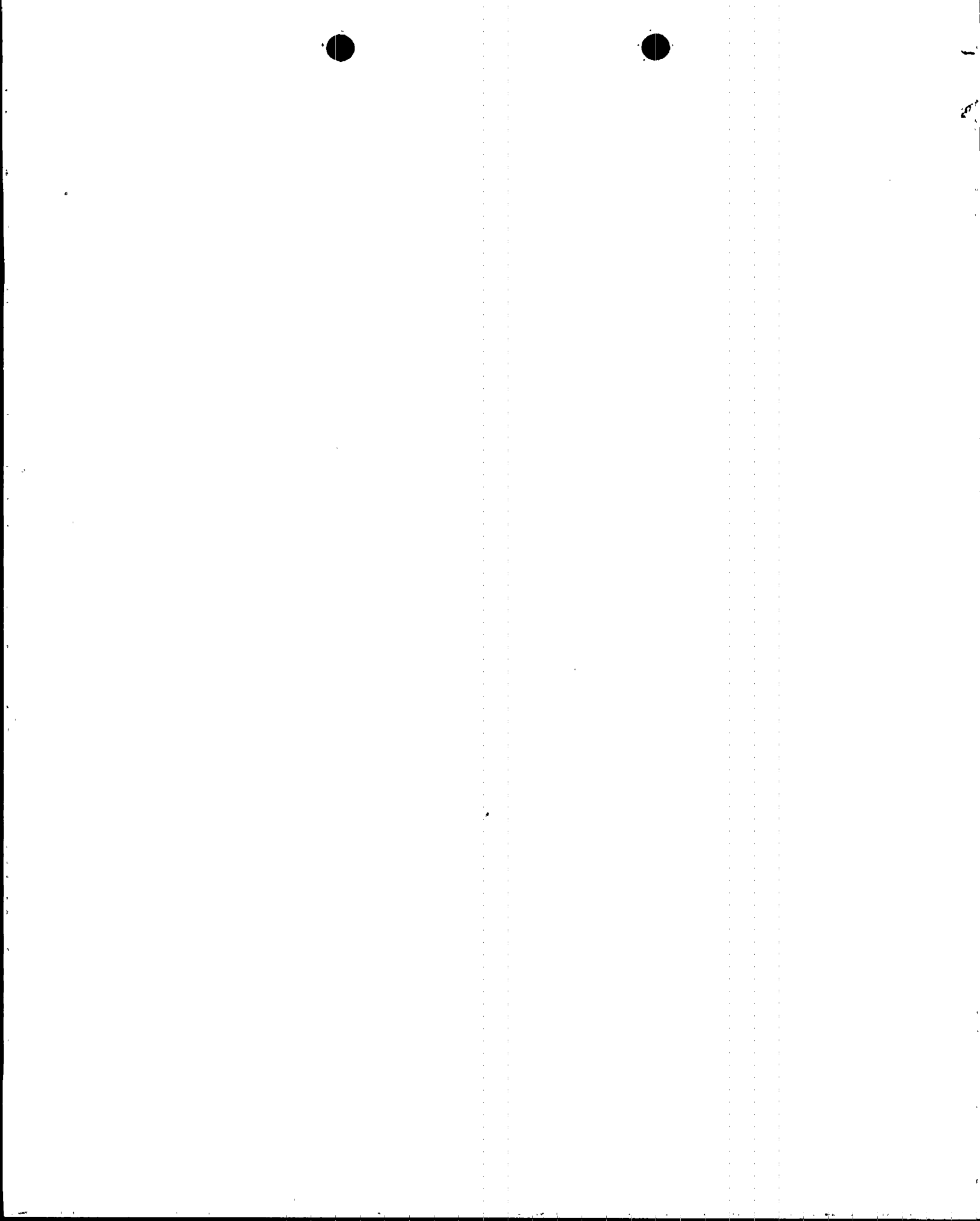
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## LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) <b>Turkey Point Unit 4</b>										DOCKET NUMBER (2) <b>0 5 0 0 0 2 5 1 1</b>					PAGE (3) <b>1 OF 0 3</b>	
TITLE (4) <b>Unit 4 Startup Transformer De-energized</b>																
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 3	1 3	9 1	9 1	0 0 1	0 0 0	0 3	1 4	9 1					0 5 0 0 0			
OPERATING MODE (9) <b>N</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 0 0</b>		20.402(b)				20.406(e)				80.73(a)(2)(iv)				73.71(b)		
		20.406(a)(1)(i)				80.36(e)(1)				<input checked="" type="checkbox"/> 80.73(a)(2)(v)				73.71(c)		
		20.406(a)(1)(ii)				80.36(e)(2)				80.73(a)(2)(vi)				OTHER (Specify in Abstract below and in Text, NRC Form 368A)		
		20.406(a)(1)(iii)				80.73(a)(2)(i)				80.73(a)(2)(vii)(A)						
		20.406(a)(1)(iv)				80.73(a)(2)(ii)				80.73(a)(2)(vii)(B)						
		20.406(a)(1)(v)				80.73(a)(2)(iii)				80.73(a)(2)(viii)						
LICENSEE CONTACT FOR THIS LER (12)																
NAME <b>D. R. Powell, Superintendent of Licensing</b>										TELEPHONE NUMBER						
										AREA CODE <b>3 0 5</b>		NUMBER <b>2 4 6 - 6 5 5 9</b>				
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)																
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS						
SUPPLEMENTAL REPORT EXPECTED (14)												EXPECTED SUBMISSION DATE (15)		MONTH	DAY	YEAR
<input checked="" type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)														0 4	1 2	9 1
ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)																
<p>On March 13, 1991 at 1530 the Unit 4 startup transformer locked out, which caused the 4A 4160 volt bus to de-energize. The 4B 4160 volt bus was already out of service due to modifications being performed during the current outage. Two of four available black start diesel generators (not emergency diesels) were started and made available to provide power to the 4A bus. After an investigation to determine the cause of the lockout and a determination that the lockout was not due to a bus or transformer fault, power was restored to the bus at 1635. Preliminary investigations and interviews of personnel involved, leads us to believe that the cause was construction activities taking place to modify the control room control boards. Loss of power to the 4A bus resulted in the loss of Spent Fuel Pool Cooling. Spent fuel pool cooling was restored at 1727. The pool temperature increased by approximately 3 degrees F. to 87 degrees F. during the time the cooling system was not in operation. An Unusual Event was declared at 1550 and terminated at 1727 when the spent fuel pool cooling was restored. State and NRC notifications were made as required.</p>																



FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (8)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
Turkey Point Unit 4	0 5 0 0 0 2 5 1 9 1	—	0 0 1	—	0 0	0 2	OF 0 3

TEXT (If applicable, state section of report covered by NRC Form 364A-1 (17))

**I. EVENT DESCRIPTION**

On March 13, 1991 at 1530 the output breaker from the Unit 4 startup transformer to the 4A 4160 volt bus received a lock out signal. This resulted in the isolation of the transformer and the 4A 4160 volt bus. The 4B 4160 volt bus was already out of service due to modifications being performed during the current outage. Two of four available black start diesel generators were started and made available to provide power to the 4A bus if required but were not connected to the bus. The emergency diesel generators have been removed from service during the Emergency Power System project. An investigation to determine the cause of the lockout and a determination that the lockout was not due to a bus or transformer fault was conducted. The Unit 4 startup transformer was re-energized at 1630 in accordance with Off-Normal Operating Procedure 4-ONOP-004, "Loss of Offsite Power." Power was restored to the 4A 4160 volt bus at 1635 from the startup transformer.

Loss of power to the 4A bus resulted in the loss of Spent Fuel Pool Cooling. Spent fuel pool cooling was restored at 1727. The pool temperature increased by approximately 3 degrees F. to 87 degrees F. during the time the cooling system was not in operation.

An Unusual Event was declared at 1550 and terminated at 1727 when the spent fuel pool cooling was restored. State and NRC notifications were made as required.

**II. EVENT CAUSE**

Preliminary investigations and interviews of personnel involved indicate that the cause was construction activities taking place to modify the control room control board.

**III. EVENT SAFETY ANALYSIS**

An occurrence of this type was considered during the planning for the Emergency Power Systems outage. Procedures were prepared for response to such an occurrence. The systems required to operate in the event of a loss of the capability to provide power from offsite sources worked as designed. Also a capability existed to tie the Unit 3 startup transformer to the 4A 4160 volt bus if needed. A truck mounted 400 Kw diesel was available to provide temporary power to provide cooling to the Spent Fuel Pool. In addition a diesel powered fire pump and non-vital screen wash pump are available to supply spent fuel pool cooling water. Also an alternate cooling system, in place for this outage could supply spent fuel pool cooling using non-vital power.

The rise in temperature of the spent fuel pool was less than predicted by the analysis done for the safety evaluation performed for the outage. The temperature of the spent fuel pool was monitored each half hour to ensure that the heat up rate was not greater than predicted. Thus the health and safety of plant personnel and the general public was not compromised.





FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (3)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		9   1	— 0   0   1	— 0   0	0   3	OF	0   3

TEXT (If more space is required, use additional NRC Form 386A's) (17)

IV. CORRECTIVE ACTIONS

- A. Two of four available black start diesels (non-safety related) were started and made available to supply power to the 4160 volt bus.
- B. Work in and around areas that could have contributed to the transformer lockout has been stopped. Management will release these areas for work as the investigation progresses.
- C. An Event Response Team has been appointed to complete the investigation and provide appropriate corrective actions.

V. ADDITIONAL INFORMATION

- A. A supplemental Licensee Event Report will be provided upon completion of the investigation and determination of the root cause.

