

# ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

## REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 9204300231 DOC. DATE: 92/04/23 NOTARIZED: NO DOCKET #  
 FACIL: 50-250 Turkey Point Plant, Unit 3, Florida Power and Light Co 05000250  
 AUTH. NAME AUTHOR AFFILIATION  
 KNORR, J.E. Florida Power & Light Co.  
 PLUNKETT, T.F. Florida Power & Light Co.  
 RECIP. NAME RECIPIENT AFFILIATION

SUBJECT: LER 92-005-00: on 920420, two Main Steam isolation valves declared inoperable. Caused by personnel error. A & B MSIVs were returned to svc in accordance w/ procedures as soon as valve misalignment was identified. W/920423 ltr

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NOTES: NRR RAGHAVAN, L

05000250 A

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	NRR/DST/SRXB 8E		1	1		REG-FILE 02		1	1	
	RES/DSIR/EIB		1	1		RGN2-FILE 01		1	1	
EXTERNAL:	EG&G BRYCE, J.H		3	3		L ST LOBBY WARD		1	1	
	NRC PDR		1	1		NSIC MURPHY, G.A		1	1	
	NSIC POORE, W.		1	1		NUDOCS FULL TXT		1	1	

NOTES: 1 1.

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APR 23 1992

L-92-124

10 CFR 50.73

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

Gentlemen:

Re: Turkey Point Unit 3  
Docket No. 50-250  
Reportable Event: 92-005-00  
Two Main Steam Isolation Valves Inoperable Due to  
Isolated Backup Nitrogen Supply and Therefore Not in  
Compliance With the Technical Specifications.

The attached Licensee Event Report 250-92-005-00 is being  
provided in accordance with 10 CFR 50.73 (a) (2) (i) (B).

If there are any questions please contact us.

Very truly yours,

*T. F. Plunkett by J. W. Pearce*

T. F. Plunkett  
Vice President  
Turkey Point Nuclear

TFP/JEK/jk

enclosures

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

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# LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) <div style="text-align: center;">TURKEY POINT UNIT 3</div>	DOCKET NUMBER (2) <div style="text-align: center;">05000250</div>	PAGE (3) <div style="text-align: center;">1 OF 4</div>
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TITLE (4)      Two Main Steam Isolation Valves Inoperable Due to Isolated Backup Nitrogen Supply and Therefore Not in Compliance With the Technical Specifications.

EVENT DATE (5)			LER NUMBER(6)			RPT DATE (7)			OTHER FACILITIES INV. (8)	
MON	DAY	YR	YR	SEQ #	R#	MON	DAY	YR	FACILITY NAMES	DOCKET # (5)
04	20	92	92	005	00	04	23	92		

OPERATING MODE (9)	1	10 CFR 50.73(a)(2)(i)(B)
POWER LEVEL (10)	87	

LICENSEE CONTACT FOR THIS LER (12)	
James E. Knorr, Licensing Engineer	TELEPHONE NUMBER 305-246-6757

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)									
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	NPRDS?	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	NPRDS?
A									

SUPPLEMENTAL REPORT EXPECTED (14)    NO <input checked="" type="checkbox"/> YES <input type="checkbox"/>	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
(if yes, complete EXPECTED SUBMISSION DATE)				

ABSTRACT (16)

At approximately 0600 hours on April 20, 1992, with Unit 3 operating at approximately 87% of rated power, a turbine operator replaced the backup nitrogen supply compressed gas bottles on the A and B Main Steam Isolation Valves (MSIV) on Unit 3 without the use of a procedure. Because of the misalignment of valves during the bottle replacement the A and B MSIVs were considered inoperable.

At 0830 hours that same day, (approximately 2.5 hours later) the relieving turbine operator, as part of the next log taking rounds, discovered the valve misalignment and notified his supervisor. Technical Specification 3.7.1.5 allows one MSIV to be inoperable for up to 24 hours. When two MSIVs were declared inoperable due to isolation of the backup nitrogen supply to each valve the plant was not operating in a condition allowed by Technical Specification 3.7.1.5. Unit 3 then entered the one hour action statement of Technical Specification 3.0.3.

At 0843 hours, the backup nitrogen system supply was restored and the plant exited the action statement. The instrument air system is designed to be the primary system for closing the MSIVs upon demand. The instrument air system was operable during the time the backup nitrogen supply system was declared inoperable.

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## I. EVENT DESCRIPTION

At approximately 0600 hours on April 20, 1992, with Unit 3 operating at approximately 87% of rated power, a turbine operator replaced the backup nitrogen supply compressed gas bottles (EIIS System - SB) (IEEE Component - GBM) on the A and B Main Steam Isolation Valves (MSIV) (IEEE Component - ISV) on Unit 3 without the use of a procedure. The backup nitrogen supply bottles' isolation valves must be closed during the gas bottle replacement process. After completion of the gas bottle replacement, the header isolation valves were not reopened as required, thus isolating the backup compressed nitrogen gas bottles from both the A and B MSIV closure systems, and the A and B MSIVs were considered inoperable. Technical Specification 3.7.1.5 allows one MSIV to be inoperable for up to 24 hours. When two MSIVs were declared inoperable due to isolation of the backup nitrogen supply to each valve, the plant was not operating in a condition allowed by Technical Specification 3.7.1.5.

At 0830 hours that same day, the Unit 3 turbine operator, as part of the next normal log taking in accordance with Operations Surveillance Procedure, 3-OSP-201.3, "NPO Daily Logs," discovered the valve misalignments and notified his supervisor. As a result, Unit 3 entered the one hour action statement of Technical Specification 3.0.3.

At 0843 hours, the backup nitrogen supply system lineup was restored and independently verified in accordance with 3-OSP-072.2, "MSIV N<sub>2</sub> Backup Periodic Test." After the verification of alignment of the backup nitrogen supply system to the A and B MSIVs was completed, the A and B MSIVs were declared operable, and the plant exited the Technical Specification 3.0.3 action statement.

## II. EVENT CAUSE

The root cause of this event was a cognitive personnel error by licensed and non-licensed personnel. A procedure was in place for the performance of the task of changing the compressed gas nitrogen bottles. The procedure was not used.

## III. EVENT SAFETY ANALYSIS

The MSIV air operator backup nitrogen supply for Unit 3 is comprised of a dedicated separate, safety related backup nitrogen supply subsystem for each of the three Unit 3 MSIVs. The backup system consists of independent pneumatic circuits, redundant electric control solenoid valves, and dedicated high pressure nitrogen gas reserves. This backup system ensures that each MSIV will close within five seconds or less upon receipt of a closure signal coincident with the most limiting process condition of low steam flow. In addition, the backup system ensures that MSIV closure can be maintained for a minimum of one hour without the need for operator action, independent of the availability of instrument air.

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During the time that the MSIVs were declared inoperable due to the unavailability of backup nitrogen (approximately 2.75 hours), a number of methods for closing and maintaining the MSIVs closed were still in place. First, the instrument air system, although not safety grade, was operable and capable of closing the valves and maintaining them closed for one hour. Second, if a main steam line break had occurred, the MSIVs would have started to close due to the force of a spring. The valve would close due to steam flow against the disc. Differential pressure across the valve would then have maintained it closed. For a steam generator tube rupture, if the MSIV did not close because instrument air was lost and the backup nitrogen system was valved out, Emergency Operating Procedure, 3-EOP-0, "Reactor Trip or Safety Injection," or Off Normal Operating Procedure ONOP 208.11, "Annunciator List - Panel I - Station Service," would direct the operator to close the MSIVs by manual actuation from the control room or verify nitrogen alignment and subsequently manually close the MSIVs from the control room. Finally, for the case of a small steam line break downstream of the MSIV, attempts to manually close the MSIV would cause a low nitrogen pressure alarm which would result in the same operator response as discussed above.

In all of the above cases either differential pressure across the MSIV or backup nitrogen system restoration as a result of procedurally initiated operator action would maintain the valves closed for a minimum of one hour after the closure of the MSIV. Therefore the health and safety of plant personnel and the general public were not compromised.

## IV. CORRECTIVE ACTIONS

1. The A and B MSIVs were returned to service in accordance with procedures as soon as the valve misalignment was identified.
2. The following safety related systems for both Units 3 and 4 were walked down by the system engineers or operations personnel for alignment verification in accordance with the appropriate system alignment verification procedures:

- Intake Cooling Water
- Component Cooling Water
- Boric Acid System
- Post Accident Containment Vent System
- Containment Spray
- Auxiliary Feed Water
- High Head Safety Injection
- Residual Heat Removal System
- 124 Volt Vital DC
- Startup Transformer
- Onsite AC Distribution
- Post-accident Hydrogen Monitoring System

No other incorrect valve or breaker alignments were found.

3. The turbine operator and his supervisor have been or will be disciplined.

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4. Each operations crew, including both licensed and non-licensed operators, met with plant upper management to reinforce the necessity and requirement to use procedures with verbatim compliance on safety related systems when performing even the most routine operation. The details of this event were the focus of these meetings.

5. The activities of the non-licensed operator during the mid-shift of April 20, 1992, were reviewed. No other anomalies were noted.

6. An independent Human Performance Evaluation System review is being performed and will be complete by April 30, 1992, to ensure that all human factors causes are evaluated.

## V. ADDITIONAL INFORMATION

No other similar Licensee Event Reports have been submitted.

This event is considered reportable in accordance with 10 CFR 50.73 (a) (2) (i) (B).

