Florida Power & Light Company, 6351 S. Ocean Drive, Jensen Beach, FL 34957

August 7, 2000

L-2000-155
10 CFR § 50.73

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

Re: St. Lucie Unit 2
Docket No. 50-389
Reportable Event: 2000-003-00
Date of Event: July 8, 2000
TSP Surveillance Methodology Differed
From Technical Specification Requirements

The attached Licensee Event Report 2000-003 is being submitted pursuant to the requirements of 10 CFR § 50.73 to provide notification of the subject event.

Very truly yours,

Rajiv S. Kundalkar
Vice President
St. Lucie Nuclear Plant

RSK/EJW/KWF
Attachment

cc: Regional Administrator, USNRC, Region II
Senior Resident Inspector, USNRC, St. Lucie Nuclear Plant

IE22

NRC FORM 366 (6-1998) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB NO. 3150-0104 EXPIRES 06/30/2001

Estimated burden per response to comply with this mandatory information collection request: 50 hrs. Reported lessons learned are incorporated into the licensing process and fed back to industry. Forward comments regarding burden estimate to the Records Management Branch (T-6 F33), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and to the Paperwork Reduction Project (3150-0104), Office of Management and Budget, Washington, DC 20503. If an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
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TITLE (4)

TSP Surveillance Methodology Differed From Technical Specification Requirements

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 NAME	DOCKET NUMBER
07	08	2000	2000	- 003 -	00	08	07	2000	FACILITY NAME	DOCKET NUMBER

OPERATING MODE (9)	1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)			
POWER LEVEL (10)	100	20.2201(b)	20.2203(a)(2)(v)	X 50.73(a)(2)(i)	50.73(a)(2)(viii)
		20.2203(a)(1)	20.2203(a)(3)(i)	50.73(a)(2)(ii)	50.73(a)(2)(x)
		20.2203(a)(2)(i)	20.2203(a)(3)(ii)	50.73(a)(2)(iii)	73.71
		20.2203(a)(2)(ii)	20.2203(a)(4)	50.73(a)(2)(iv)	OTHER
		20.2203(a)(2)(iii)	50.36(c)(1)	50.73(a)(2)(v)	Specify in Abstract below or in NRC Form 366A
		20.2203(a)(2)(iv)	50.36(c)(2)	50.73(a)(2)(vii)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER (Include Area Code)
Kenneth W. Frehafer, Licensing Engineer	(561) 467 - 7748

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX
A		-	-	NO		-	-	-	-	-
-	-	-	-	-		-	-	-	-	-

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 15 single-spaced typewritten lines)* (16)

On July 8, 2000, St. Lucie Unit 2 was in Mode 1 operation at 100 percent reactor power. FPL determined that differences between surveillance procedure 2-COP-07.07, "Analysis of Unit 2 Trisodium Phosphate (TSP) for pH and Volume Requirements," and St. Lucie Unit 2 Technical Specification Surveillance 4.5.2.e.4. constituted a literal non-compliance with the Technical Specifications. However, on July 8, 2000, a TSP basket was sampled and analyzed in accordance with Technical Specification requirements and compliance was established.

The cause of this event was personnel error in that the Technical Specification surveillance method was not correctly translated into the implementing procedure. Procedure 2-COP-07.07 was revised to comply with the literal wording of the Technical Specification requirements. Other chemistry procedures that implement Technical Specification surveillances were reviewed for verbatim compliance and no other issues were identified.

This event had no impact on the health and safety of the public.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
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TEXT *(If more space is required, use additional copies of NRC Form 366A)* **(17)**

Description of the Event

On July 8, 2000, St. Lucie Unit 2 was in Mode 1 operation at 100 percent reactor power. FPL determined that differences between surveillance procedure 2-COP-07.07, "Analysis of Unit 2 Trisodium Phosphate (TSP) for pH and Volume Requirements," and St. Lucie Unit 2 Technical Specification Surveillance 4.5.2.e.4. constituted a literal non-compliance with the Technical Specifications. However, on July 8, 2000, a TSP basket was sampled and analyzed in accordance with Technical Specification requirements and compliance was established.

Cause of the Event

The cause of this event was personnel error. The Technical Specification surveillance method was not correctly translated into the implementing procedure. Procedure 2-COP-07.07 was revised to comply with the literal wording of the Technical Specification requirements. Other chemistry procedures that implement Technical Specification surveillances were reviewed for verbatim compliance and no other issues were identified.

Analysis of the Event

This event is reportable in accordance with 10 CFR 50.73(a)(2)(i)(B) because the procedure that implemented the Technical Specification surveillance differed from the administrative sampling and testing requirements. Therefore, this resulted in a condition prohibited by the plant's Technical Specifications.

Technical Specification Surveillance 4.5.2.e.4 demonstrates operability of the ECCS subsystems and requires, in part, that every 18 months:

> *"Verifying that when a representative sample of 70.5 +/- 0.5 grams of TSP from a TSP storage basket is submerged, without agitation, in 10.0 +/- 0.1 gallons of 120 +/- 10°F borated water from the RWT, the pH of the mixed solution is raised to greater than or equal to 7 within 4 hours."*

The implementing procedure differed from these requirements in two ways:

1. FPL collected a total of 70.5 +/- 0.5 grams of TSP from all 16 TSP baskets [EIIS:BSKT] located within the vicinity of the Unit 2 containment sump, and;
2. The procedure allowed the option of submerging the sample in a prepared water solution that was within the Technical Specification refueling water tank (RWT) boron concentration band.

When FPL first evaluated these differences in June 2000, it was concluded that a valid interpretation was that the Technical Specification surveillance requirements were met. A representative sample from "a" TSP storage basket was interpreted to mean a sample from the population of TSP baskets within containment. Additionally, the use of prepared soluble solution was representative of water from the RWT. Upon further evaluation, FPL concluded that although this interpretation had considerable merit, literal compliance with the Technical Specification was not met.

Analysis of Safety Significance

Trisodium phosphate dodecahydrate (TSP) is stored in 16 open baskets located in the vicinity of the containment sump. During a design bases accident (DBA), the TSP

baskets are submerged by essentially pH neutral or slightly acidic borated water and the TSP dissolves. Mixing is achieved as the solution is continuously recirculated from the sump to the spray nozzles. Subsequently, within three to four hours the recirculating water mixture is stabilized at a neutral pH in accordance with Branch Technical Position MTEB 6-1, "pH for Emergency Coolant Water." As a result, the pH level of the post accident water chemistry reduces the probability of stress corrosion cracking of austenitic stainless steel components.

The Technical Specification Bases for Surveillance 4.5.2.e.4 state that the purpose of dissolving a representative sample of TSP in a sample of RWT water is to provide assurance that the stored TSP will dissolve in borated water in postulated post LOCA conditions.

FPL concludes that the Bases of the Technical Specification surveillance were satisfied by the implementing procedure in that results demonstrate that the stored TSP dissolves in and buffers the borated water. Collecting TSP from multiple baskets does provide a representative sample of the stored TSP. Preparing a water solution of distilled water and boric acid is equivalent to, and representative of, the liquid contained in the RWT. Historically, the results obtained were as valid as those that would have been be obtained had the Technical Specification surveillance method been followed verbatim. This was substantiated by the sample analysis that was performed in accordance with the literal application of the Technical Specification Surveillance requirements on July 8, 2000.

Therefore, this event had no impact on the health and safety of the public.

Corrective Actions

1. On July 8, 2000, a TSP basket was sampled and analyzed in accordance with Technical Specification requirements.
2. Procedure 2-COP-07.07 was revised to comply with the literal wording of the Technical Specification surveillance requirements.
3. Other chemistry procedures that implement Technical Specification surveillances were reviewed for verbatim compliance and no other issues were identified.

Additional Information

This event is not applicable to St. Lucie Unit 1. St. Lucie Unit 1 uses a NaOH solution as the sump water buffering agent. Additionally, the NaOH delivery method is different in that the NaOH solution is stored in a tank and the contents are educted into the containment spray system.

Failed Components Identified

None

Similar Events

None