Florida Power

CORPORATION
Crystal River Unit 3
Docket No. 50-302

June 17, 1997
3F0697-06

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D.C. 20555-0001

Subject: LICENSEE EVENT REPORT (LER) 97-002-01

Dear Sir:

Please find the enclosed Licensee Event Report (LER) 97-002-01. The LER is being supplemented to provide the results of the root cause analysis, including the extent of the condition and additional corrective actions.

This report is submitted pursuant to 10 CFR 50.73.

Sincerely,

B J Hickle

B. J. Hickle, Director
Nuclear Plant Operations

RLJ/pmp

xc: Regional Administrator, Region II
Senior Resident Inspector
NRR Project Manager

IE22

NRC FORM 366 (4-95) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB NO. 3150-0104

EXPIRES 04/30/98

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS MANDATORY INFORMATION COLLECTION REQUEST: 50.0 HRS. REPORTED LESSONS LEARNED ARE INCORPORATED INTO THE LICENSING PROCESS AND FED BACK TO INDUSTRY. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND 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.

LICENSEE EVENT REPORT (LER)

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

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TITLE (4)

OUT-OF-CALIBRATION FUEL STORAGE POOL WATER LEVEL TRANSMITTERS INVALIDATE TECHNICAL SPECIFICATION SURVEILLANCE

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
01	29	97	97	-- 002 --	01	06	17	97	FACILITY NAME	DOCKET NUMBER

OPERATING MODE (9)	5	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)					
POWER LEVEL (10)	0%	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)
Patrick M. Peterson, Sr. Regulatory Specialist	(352) 795-6486, ext. 4162

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 15 single-spaced typewritten lines) (16)

On January 29, 1997, Florida Power Corporation's (FPC) Crystal River Unit 3 (CR-3) was in MODE 5 (COLD SHUTDOWN).

FPC discovered the fuel storage pool (FSP) [DA] water level transmitters [LT] SF-1-LT1 and SF-1-LT2 were overdue for calibration and therefore, out-of-service. FPC determined this was a condition prohibited by Technical Specifications (TS). TS surveillance requirement (SR) 3.7.13, verification of the FSP water level during the time period of irradiated fuel movement, was performed using out-of-calibration transmitters, therefore, invalidating the FSP water level surveillance recordings.

The causes for this event were determined to be a lack of commitment to, and management oversight of the Preventive Maintenance Program; weaknesses in the Preventive Maintenance (PM) Program; weakness in the corrective action program; and failure to formally train Operations personnel on changes to the PM Program.

A measuring device was physically placed into the FSP to determine the FSP water level. The measuring device will be used to monitor the FSP water level until the level transmitters are declared operable and placed back into service. Procedures will be revised to enhance the PM program and to include verification of calibration for instruments required for TS surveillances.

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TEXT *(If more space is required, use additional copies of NRC Form 366A)* (17)

EVENT DESCRIPTION

On January 29, 1997, Florida Power Corporation's (FPC) Crystal River Unit 3 (CR-3) was in MODE 5 (COLD SHUTDOWN). Based on a review of a Precursor Card 96-5697, the Shift Supervisor on Duty determined CR-3 was in a condition prohibited by Technical Specifications (TS) because the TS surveillance requirement (SR) was performed using out-of-calibration transmitters. Therefore, fuel storage pool (FSP) [DA] water level recordings were determined to be invalid.

Transmitters SF-1-LT1 and SF-1-LT2 (Fisher Governor Company Model 2340 Level-Trol Displacer assemblies) are used to verify FSP water level. TS 3.7.13, "Fuel Storage Pool Water Level," requires the water level to be >/= 156 feet plant datum. SR 3.7.13.1 requires verification of the FSP level every seven (7) days during movement of irradiated fuel assemblies in the FSP. The calibration frequency for SF-1-LT1 and SF-1-LT2 is once every 24 months. The last calibration record for SF-1-LT1 was November 1987 and the last calibration record for SF-1-LT2 was February 1992.

Surveillance Procedures (SP) 300 "Operation Daily Surveillance Log," SP-301, "Shutdown Daily Surveillance Log," and SP-306, "Weekly Surveillance Log," require the operator to verify instruments for surveillance requirements are calibrated. One method to accomplish this was to use the Maintenance Activity Control System (MACS) database. A field was established specifically for this use as part of the corrective action for Problem Report (PR) 90-8002.

PR 90-8002 was initiated on November 11, 1990 to document both FSP transmitters exceeding their calibration interval. Part of the corrective action was to calibrate the transmitters. SF-1-LT2 was successfully calibrated on December 14, 1990, however SF-1-LT1 could not be calibrated to the required tolerances. Request for Engineering Assistance (REA) 91-114 was initiated on February 4, 1991 to replace both transmitters because SF-1-LT1 could not be calibrated and replacement parts were no longer available. PR 90-8002 was closed based on the issuance of the REA and the addition of a field in the Maintenance Activity Control System (MACS) database. The field in MACS was for operators to use to identify out-of-calibration and inoperable instruments which are necessary to perform TS surveillance requirements. Initially, Operations did use MACS, but the requirement was never formalized and the practice fell into disuse.

The calibration of SF-1-LT1 was placed on hold in December 1990, pending engineering evaluation. SF-1-LT2 was calibrated on February 28, 1992. In April of 1992, the REA was forwarded to Design Engineering to develop a Modification Approval Record (MAR) to replace the transmitters. In February of 1994, SF-1-LT2 was due for calibration, but because of the possible MAR installation, was not scheduled. In March of 1995, MAR 95-03-13-01 was generated to replace SF-1-LT1 and SF-1-LT2 with ultrasonic level transmitters but was never worked due to its low priority. SF-1-LT1 and SF-1-LT2 were not re-instated into the calibration schedule. Due to the belief that Operations was using the MACS database to identify "Out of Calibration" instruments, no verbal or other type of notification was made to Operations by the Preventive Maintenance Coordinator.

This report is submitted in accordance with 10CFR50.73(a)(2)(i)(B).

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TEXT *(If more space is required, use additional copies of NRC Form 366A)* (17)

EVENT EVALUATION

The FSP is divided in two sections by a refueling channel. Each section of the FSP has one water level transmitter. The refueling channel is open when irradiated fuel movement is not in progress, which equalizes the water level between the FSP portions. Both level transmitters, SF-1-LT1 and SF-1-LT2, were used to record FSP water level during the periods of irradiated fuel movement. Irradiated fuel movement occurred in five different time periods between February 1994 and April 1996, when neither SF-1-LT1 and SF-1-LT2 were within the respective calibration periods.

The as-found calibration check of SF-1-LT1 found the transmitter to be out-of-tolerance in the conservative direction. The transmitters water level indication was lower than the actual water level. FSP water level data points recordings using SP-300 "Operation Daily Surveillance Log," SP-301, "Shutdown Daily Surveillance Log," and SP-306, "Weekly Surveillance Log," indicate the FSP water level did not drop below the TS limit, 156 feet of plant datum, during the expired calibration period.

SF-1-LT1 could not be calibrated within the accepted tolerance range. A widening of the allowable tolerance is being evaluated. Transmitter SF-1-LT2 was successfully calibrated in April 1997.

CAUSE

A Root Cause Analysis of this event was performed and the following causes were identified:

- Previous Problem Report (PR 90-8002) was closed out without all corrective actions accomplished.

  Note: This is no longer acceptable and is not allowed by the current Corrective Action Program. Additional enhancements to the Corrective Action Program are discussed in FPC docketed letter 3FO497-34, dated April 11, 1997.

- The Preventive Maintenance (PM) Program (AI-605) was vague on required actions when instruments exceed their calibration interval.

- The PM Program had no guidance on what constitutes justification for not calibrating instruments.

- Training on changes to the PM Program (MACS Database field for out of calibration instruments) was not incorporated into formal training for Operations.

Additionally, the following contributing causes were identified:

- There was a failure to Verify and Validate information on the REA / MAR, concerning the planned replacement of the transmitters prior to expiration of the calibration interval.

- Operations no longer received Calibration Status reports from the PM Coordinator after the MACS out of calibration field became available.

- Operations surveillance procedures do not specify how instruments are checked to be within their normal calibration frequency.

IMMEDIATE CORRECTIVE ACTIONS

A measuring device was physically placed into the FSP to determine the FSP water level. The measuring device will be used to monitor the FSP water level until the level transmitters are placed back into service. SF-1-LT1 and SF-1-LT2 were reinstated into the calibration program.

A Night Order was issued to instruct Operations to check the MACS database for instrument calibration, prior to performance of surveillance procedures. This check provides a mechanism to ensure instruments used in surveillance procedures are not overdue for calibration.

ADDITIONAL CORRECTIVE ACTIONS - EXTENT OF THE CONDITION

A review of other PM calibration procedures identified additional instruments beyond their calibration frequency. Precursor Cards (PCs) were written to track completion of the calibrations. Three of the PCs have been closed with the instrument calibrations complete. The fourth PC tracks instruments used to satisfy Technical Specification (TS) Surveillance Requirement 3.6.5.1, concerning Reactor Building average temperature. The calibration of these instruments is in progress and is addressed by Restart Issue M-8, scheduled to be completed by November 26, 1997. On March 19, 1997, the Manager Nuclear Outage and Work Controls issued a memo providing an action plan to work off the existing instrument calibration backlog and the responsibilities of personnel involved. Instruments used to satisfy TS Surveillance Requirements will be calibrated prior to restart.

ACTIONS TO PREVENT RECURRENCE

AI-605 will be revised to:

- Provide guidance on what constitutes justification for not calibrating instruments,
- Provide guidance for actions required when instruments exceed their calibration interval,
- Require weekly status reports be delivered to the NSSOD to identify instruments that have exceeded their calibration interval.

Training on MACS database for instrument calibration status will be incorporated into the Operations Formal Training Program.

Operations Surveillance Procedure (SP) SP-301 has been revised to give specific guidance on how instruments are to be verified within their normal calibration frequency.

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TEXT *(If more space is required, use additional copies of NRC Form 366A)* (17)

Operations Surveillance Procedure (SP) SP-300 will be revised to give specific guidance on how instruments are to be verified within their normal calibration frequency.

The View/Print Working Copy Program (AI-400E) will be revised to require a MACS calibration status report to be run and included with Working Copy SPs.

Formal expectations are being developed for Daily Schedulers to provide guidelines for developing the daily schedule, the importance of AI-605 calibrations and the need to verify and validate information used for not scheduling calibrations.

AI-605 calibrated instruments used to satisfy TS will be evaluated and their calibrations will be incorporated into an existing or a new Surveillance Procedure.

The above actions are scheduled to be completed by 11/26/97.

PREVIOUS SIMILAR EVENTS

This is the first event involving the Fuel Storage Pool water level transmitters. LER 83-039 identified eleven process instruments required by TS 3.3 were found to be out of calibration during MODE 5 surveillance testing. LER 88-008 reported three out-of-four low level transmitters on the 'B' [OTSG] were out of calibration tolerance.

ATTACHMENT

None