



Florida Power

CORPORATION
Crystal River Unit 3
Docket No. 50-302

April 8, 1997
3F0497- 04

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

Subject: LICENSEE EVENT REPORT (LER) 97-007-00

Dear Sir:

Please find the enclosed Licensee Event Report (LER) 97-007-00 concerning building temperature variations larger than assumed in the design basis, resulting in unknown instrument uncertainties.

This report is submitted in accordance with 10 CFR 50.73. Florida Power Corporation intends to supplement this report by July 18, 1997 in order to provide the results of the final root cause analysis, determination of the extent of condition, and any additional corrective actions.

Please note that this LER is being submitted one day past the required due date. On April 7, 1997, following the guidance in NUREG-1022 Section 5.1.1, the NRC Regional office was informed of this delay.

Sincerely,

J. J. Holden, Director
Nuclear Engineering and Projects

JJH/pmp

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

IE221

9704160089 970408
PDR ADOCK 05000302
S PDR



EXPIRES 04/30/98

LICENSEE EVENT REPORT (LER)

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

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS MANDATORY INFORMATION COLLECTION REQUEST: 500 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-8 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.

FACILITY NAME (1)

CRYSTAL RIVER UNIT 3

DOCKET NUMBER (2)

05000302

PAGE (3)

1 OF 3

TITLE (4)

BUILDING TEMPERATURE VARIATIONS LARGER THAN ASSUMED RESULTING IN UNKNOWN INSTRUMENT UNCERTAINTIES

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
03	06	97	97	-- 007 --	00	04	08	97	FACILITY NAME	DOCKET NUMBER
OPERATING MODE (9)		N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)							
POWER LEVEL (10)		000	20.2201(b)		20.2203(a)(2)(v)		50.73(a)(2)(i)		50.73(a)(2)(viii)	
			20.2203(a)(1)		20.2203(a)(3)(i)		X 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)

X	YES	NO	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
	(If yes, complete EXPECTED SUBMISSION DATE).			07	18	97

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On March 6, 1997, Florida Power Corporation's (FPC) Crystal River Unit 3 (CR-3) was in MODE 5 (COLD SHUTDOWN). FPC made a four hour report to the NRC in accordance with 10 CFR 50.72(b)(2)(i).

FPC discovered that there exists a generic issue with the temperature ranges specified in the Environmental & Seismic Qualification Program Manual (ESQPM) and the temperatures maintained in the plant. Calculations for instrument setpoints utilize temperature ranges specified in the ESQPM to determine the instrument error resulting from temperature changes in the individual instrument string components. The actual environmental temperature ranges found in the plant are outside the temperature ranges used in some instrument uncertainty calculations. Ambient air temperatures were not maintained within desired temperature bands which could result in instrument uncertainties that would be non-conservative for actual environmental conditions.

FPC initiated an engineering evaluation to determine the affect on instrument uncertainties attributable to increased temperature variations. A root cause analysis is in process to determine the extent of the condition and to evaluate the potential affects from the temperature deviation on the instrument calculation setpoints. The engineering evaluation and root cause analysis will be completed by June 27, 1997.

LICENSEE EVENT REPORT (LER)

TEXT CONTINUATION

FACILITY NAME (1)	DOCKET	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
CRYSTAL RIVER UNIT 3	05000302	97	- 007 -	00	2 OF 3

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

EVENT DESCRIPTION

On, March 6, 1997, Florida Power Corporation's (FPC) Crystal River Unit 3 (CR-3) was in MODE 5 (COLD SHUTDOWN). FPC made a four hour report to the NRC in accordance with 10 CFR 50.72(b)(2)(i). Reference Event Number 31903.

On February 19, 1997, FPC generated Precursor Card (PC) 97-1148, "Potential Violation Identified During NRC Inspection 97-01," to document potential inadequate design controls regarding setpoints for safety related instrumentation in the Auxiliary Building [NF] which assume a certain ambient air temperature range.

During the investigation of Request for Engineering Assistance (REA) 96-0031, FPC discovered that there exists a generic issue with the temperature ranges specified in the Environmental & Seismic Qualification Program Manual (ESQPM) and the temperatures maintained in the plant. A precursor card was generated to address this generic issue. The actual environmental temperature ranges found in the plant are outside the temperature ranges used in some instrument uncertainty calculations. Ambient air temperatures were not maintained, as described in the ESQPM and therefore, could result in instrument uncertainties that would be non-conservative for actual environmental conditions and could affect instrument calibration accuracy. Ambient air temperatures were not recorded at the time of the calibration.

Calculations for instrument setpoints utilize temperature ranges specified in the ESQPM to determine the instrument error resulting from temperature changes in the individual instrument string components. The current methodology used at CR-3 is to conservatively assume the device is calibrated at the lower temperature value for respective ESQPM zones, and the safety function occurs while the device is at the higher zone temperature. This would allow for the maximum conservatism for the calculation bases. There are limited administrative controls to ensure the ESQPM zone temperature ranges are being maintained to prevent adversely impacting the instrument string error calculations.

FPC is submitting this report as a conservative measure in accordance with 10 CFR 50.73(a)(2)(ii)(A) as an unanalyzed condition because the instrument uncertainty error is unknown at this time.

EVENT EVALUATION

Instrument calibrations have been performed that may have introduced instrument uncertainty errors into safety related channels. The instrument uncertainties are outside of the analyzed parameters utilized to develop the supporting Instrumentation and Controls (I&C) setpoint calculations.

This is a concern since the existence of a larger temperature variation than was identified in the ESQPM could impact the performance of plant safety related instrumentation. If actual temperature variations were greater than those used in the development of these calculations, instrument calibrations and equipment performance could potentially be adversely impacted.

CAUSE

An engineering evaluation and root cause analysis is in process to determine the extent of the condition and to evaluate the potential affects of increased temperature variations on instrument calculations.

LICENSEE EVENT REPORT (LER)

TEXT CONTINUATION

FACILITY NAME (1)	DOCKET	LER NUMBER (6)			PAGE (3)
CRYSTAL RIVER UNIT 3	05000302	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	3 OF 3
		97	-- 007 --	00	

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

IMMEDIATE CORRECTIVE ACTIONS

FPC initiated an engineering evaluation to determine the affect on instrument uncertainties attributable to increased temperature variations. The engineering evaluation will be completed by June 27, 1997. Due to current plant status, all applicable instrumentation required for MODE 5 will be evaluated for OPERABILITY.

Due to current plant status, a review was conducted of surveillance procedures with a comparison of systems and equipment required to be OPERABLE in MODE 5. A preliminary evaluation of applicable instrumentation has been completed resulting in a determination that no adverse conditions exist due to temperature effects. Therefore, FPC determined there is no OPERABILITY concern in the current MODE.

CORRECTIVE ACTIONS

Additional corrective actions may be recommended as part of the engineering evaluation. FPC will supplement this LER to identify root causes and corrective actions after the engineering evaluation is complete.

ACTION TO PREVENT RECURRENCE

Recommendations for actions to prevent recurrence will be developed as part of the engineering evaluation.

PREVIOUS SIMILAR EVENTS

This appears to be the first reported event regarding instrument uncertainties due to temperature variation.

ATTACHMENTS

None