Florida Power
CORPORATION
Crystal River Unit 3
Docket No. 50-302
Operating License No. DPR-72

December 1, 1999
3F1299-05

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

Subject: Licensee Event Report (LER) 50-302/99-006-00

Dear Sir:

Please find attached Licensee Event Report (LER) 50-302/99-006-00. This LER discusses a procedure revision that caused Improved Technical Specification Surveillance Requirements to be implemented improperly. This report is being submitted pursuant to 10CFR50.73(a)(2)(i)(B).

If you have any questions concerning this submittal, please contact Mr. Sid Powell, Manager, Nuclear Licensing, at (352) 563-4883.

Sincerely,

C. G. Pardee
Director
Nuclear Plant Operations

CGP/rlm

Attachment

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

IE22

PDR ADOCK 05000302

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

LICENSEE EVENT REPORT (LER)

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.

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
CRYSTAL RIVER UNIT 3	05000302	1 OF 6

TITLE (4)
Procedure Revision Causes Improved Technical Specification Surveillance Requirements To Be Implemented Improperly

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
11	04	99	99	-- 006 --	00	12	01	99	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)	000		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)
Robert L. McLaughlin, Sr. Regulatory Specialist	(352) 795-6486

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

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 November 4, 1999, Florida Power Corporation's (FPC) Crystal River Unit 3 (CR-3) was in MODE 5 (COLD SHUTDOWN) at 0 percent Rated Thermal Power prior to restart from a refueling outage. While performing a Surveillance Procedure, FPC determined Improved Technical Specification (ITS) Surveillance Requirements (SR) were not being implemented properly. When applicable, ITS 3.4.11, Reactor Coolant System Low Temperature Overpressure Protection System, SR 3.4.11.1 and SR 3.4.11.2, require verification every twelve hours that the High Pressure Injection (HPI) non-operating pumps and injection valves are deactivated. During a procedure revision in May, 1999 the frequency for verifying HPI deactivation was changed from once per shift to once per day for portions of HPI. The cause was personnel error. The procedure was corrected on November 5, 1999. There have been two similar occurrences identified. The components remained under administrative control. FPC concluded this event did not impact the public health and safety.

DESCRIPTION

On November 4, 1999, Florida Power Corporation's (FPC) Crystal River Unit 3 (CR-3) was in MODE 5 (COLD SHUTDOWN) at 0 percent Rated Thermal Power prior to restart from a refueling outage. While performing a Surveillance Procedure (SP), FPC determined Improved Technical Specification (ITS) Surveillance Requirements (SR) were not being implemented properly.

ITS 3.4.11 describes the Limiting Condition for Operation (LCO) for the Reactor Coolant System (RCS) [AB] Low Temperature Overpressure Protection (LTOP) System. The LCO is applicable in MODE 4 (HOT SHUTDOWN) when the RCS temperature is reduced below a specified temperature, in MODE 5, and in MODE 6 (REFUELING) until the reactor vessel head is completely detensioned. The purpose of the LCO, in part, is to prevent the RCS pressure from exceeding the LTOP limits should an inadvertent actuation of the High Pressure Injection (HPI) [BQ] System occur.

When ITS 3.4.11 is applicable, SR 3.4.11.1 requires verification that a maximum of one HPI pump is capable of injecting into the RCS. SR 3.4.11.2 requires verification that HPI injection valves are deactivated. The SRs are met by verifying every twelve hours that the non-operating HPI pumps and the HPI injection valves power sources are deactivated. Until recently, the verifications had been adequately performed by Surveillance Procedure SP-301, "Shutdown Daily Surveillance Log." However, on May 20, 1999, SP-301 was cancelled and its requirements were incorporated into SP-300, "Operating Daily Surveillance Log." During that procedure revision, the frequency for verifying HPI deactivation was changed from once per shift to once per day for some of the power sources. The once per shift verification meets the ITS SR frequency requirement of twelve hours; the once per day frequency did not. The intent of ITS SR 3.4.11.1 and SR 3.4.11.2 was not completely met within the required frequency for the time frames of 0130 on October 2, 1999, to 0800 on October 5, 1999 (during plant shutdown), and from 2145 on November 2, 1999 (during plant start-up), to November 5, 1999 (when SP-300 was corrected). These events are conditions prohibited by ITS and are being reported in accordance with 10CFR50.73(a)(2)(i)(B).

EVALUATION

The LTOP System controls RCS pressure at low temperatures so the integrity of the reactor coolant pressure boundary (RCPB) is not compromised by violating the pressure and temperature (P/T) limits of ASME Code Section XI, Division 1, Code Case N-514. The reactor vessel [RPV] is the limiting RCPB component for providing such protection.

Transients that are capable of overpressurizing the RCS have been identified and evaluated. These transients relate to either mass input or heat input: actuating the HPI system; discharging the core flood tanks (CFT) [TK]; energizing the pressurizer heaters [PZR, EHTR]; failing the makeup control valve [CB, FCV] open; losing decay heat removal [BP]; starting a reactor coolant pump [AB, P] with a large thermal mismatch between the primary and secondary coolant systems; and adding nitrogen to the pressurizer. HPI actuation and CFT discharge are the transients that result in exceeding P/T limits within 10 minutes, in which time no operator action is assumed to take place. For the other transients, operator action after that time precludes overpressurization. The analyses demonstrate that either the time allowed for operator action is adequate, or the events are self-limiting and do not exceed LTOP limits.

The LCO of ITS 3.4.11 provides RCS overpressure protection in the applicable MODES by ensuring an adequate pressure relief capacity and a limited coolant addition capability. The pressure relief capacity requires either the power operated relief valve (PORV) [RV] lift setpoint to be reduced and pressurizer coolant level at or below a maximum limit or the RCS depressurized with an RCS vent of sufficient size to handle the limiting transient during LTOP. The pressurizer level limit provides a compressible vapor space that can accommodate a coolant insurge and prevent a rapid pressure increase, allowing the operator time to stop the increase. The PORV, with reduced lift setting, or the RCS vent, is the overpressure protection device that acts as backup to the operator in terminating an increasing pressure event. However, should more than one HPI pump inject on an HPI actuation, the pressurizer level and PORV or another RCS vent cannot prevent overpressurization of the RCS.

The LTOP approach to protecting the reactor vessel by limiting coolant addition capability allows a maximum of one HPI pump, deactivates HPI, and isolates the CFTs when CFT pressures exceed the maximum RCS pressure for the existing RCS temperature. When applicable, ITS 3.4.11 requires that surveillances be performed at least once per twelve hours to document that HPI injection valves are deactivated, the CFT discharge valves are closed and deactivated, and only one HPI pump is capable of injecting into the RCS. These SRs ensure that coolant input capability will not create an RCS overpressure condition to challenge the LTOP criteria. The SR frequencies are shown via operating experience and industry accepted practice to be sufficient to regularly assess conditions for potential degradation and to verify operation within these limits.

Although ITS SRs 3.4.11.1 and SR 3.4.11.2 were not completely performed in the required frequency for the periods noted above, they were performed properly for a

portion of HPI and the remainder were verified every 24 hours. Additionally, HPI was deactivated and under administrative control via Compliance Procedure CP-115B, "Personal Danger Tags, Caution Tags, And Test Tags." FPC therefore concludes this event did not impact the public health and safety.

CAUSE

The cause of this event was personnel error during the procedure revision and review process when SP-301 was incorporated into SP-300.

CORRECTIVE ACTIONS

SP-300 was revised to incorporate the required changes. An extent of condition review of SP-300 against the previous SP-301 requirements was conducted to assure any other errors were identified. Additional corrective actions, if required, will be determined and completed under FPC's Corrective Action Program.

PREVIOUS SIMILAR EVENTS

The following Reports have been issued for similar events for missed ITS SRs:

LER 98-013-00	Procedural Inadequacy Caused By Personnel Error Results In Missed Surveillance Requirements
LER 96-023-01	Personnel Error Leads to Missed Surveillance Resulting in Violation of Technical Specifications

ATTACHMENTS

Attachment 1 - Abbreviations, Definitions, and Acronyms
Attachment 2 - List of Commitments

ATTACHMENT 1

ABBREVIATIONS, DEFINITIONS, AND ACRONYMS

10CFR	Title 10 of the Code of Federal Regulations
CFT	Core Flood Tank
CP	Compliance Procedure
CR-3	Crystal River Unit 3
FPC	Florida Power Corporation
HPI	High Pressure Injection
ITS	Improved Technical Specification
LCO	Limiting Condition for Operation
LER	Licensee Event Report
LTOP	Low Temperature Overpressure Protection
PORV	Power Operated Relief Valve
RCPB	Reactor Coolant Pressure Boundary
RCS	Reactor Coolant System
SP	Surveillance Procedure
SR	Surveillance Requirement

Note: Improved Technical Specifications terms appear in capitalization in the text of the LER. EIIS Codes appear in square brackets. Defined terms/acronyms/abbreviations appear in parentheses when first used.

FACILITY NAME (1)	DOCKET	LER NUMBER (6)					PAGE (3)
		YEAR	SEQUENTIAL NUMBER			REVISION NUMBER	
CRYSTAL RIVER UNIT 3	05000302	99	--	006	--	00	6 OF 6

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

ATTACHMENT 2

List of Regulatory Commitments

RESPONSE SECTION	COMMITMENT	DUE DATE
	No regulatory commitments are made in the submittal.	