



September 5, 1997 3F0997-12

U.S. Nuclear Regulatory Commission Attention: Document Control Desk Washington, DC 20555-0001

Subject:

Generic Letter 96-01, Testing of Safety Related Logic Circuits, Confirmation of

Completion (TAC 94668)

References:

NRC Generic Letter 96-01, dated January 10, 1996

FPC to NRC letter, 3F0496-25, dated April 18, 1996

FPC to NRC letter, 3F0796-09, dated July 18, 1996

FPC to NRC letter, 3F0597-29, dated May 23, 1997

Dear Sir:

This letter confirms completion of the requested actions of Generic Letter 96-01 for Caystal River Unit 3.

In Generic Letter 96-01, the Nuclear Regulatory Commission (NRC) requested that Florida Power Corporation (FPC):

- (1) Compare electrical schematic drawings and logic diagrams for the Reactor Protection system, EDG load shedding and sequencing, and actuation logic for the engineered safety features systems against plant surveillance test procedures to ensure that all portions of the logic circuitry are adequately covered in the surveillance projedures to fulfill the technical specifications requirements.
- (2) Modify the surveillance procedures as necessary for complete testing to comply with the technical specifications.

In References 2 and 3, FPC reported to the NRC that FPC would complete the reviews requested by Generic Letter 96-01 prior to restart from the next refueling outage. In Reference 4, FPC reported that the Generic Letter 96-01 reviews and corrective actions would be completed prior to startup from the current outage and were being tracked as FPC Restart Issue R-1. Reference 4 further stated that the Generic Letter 96-01 review was scheduled for completion by August 15, 1997 and that a root cause analysis would be completed after the Generic Letter 96-01 reviews had been completed.

9709100209 970905 PDR ADDCK 05000302 U.S. Nuclear Regulatory Commission 3F0997-12 Page 2 of 3

FPC has completed the requested reviews for the systems and surveillance requirements listed in Attachment 1. The reviews were conducted for FPC by ERIN Engineering and Research, Inc. (ERIN) in accordance with "Generic Letter 96-01 System Analysis Guidelines for Crystal River Unit 3" that was prepared by FPC. An FPC Generic Letter 96-01 team consisting of representatives from Design Engineering, Technical Support, Licensing, Maintenance, and Operations reviewed ERIN's work. An independent review of the effectiveness of FPC's effort was conducted by Sargent and Lundy.

Reportable testing deficiencies identified during the reviews were reported in LER 96-011-00, LER 96-025-00, and LER 97-003-00, 01, 02, 03, and 04.

The Root Cause Evaluation for the cause of the testing deficiencies has been completed. The root cause was determined to be human error in that personnel responsible for test procedure development and review did not apply adequate test methodologies to ensure that all components/contacts were properly tested. Actions to prevent recurrence of testing deficiencies were developed from the Root Cause Evaluation. In LER 97-003-05, FPC committed to specific actions to prevent recurrence, including revision of training programs, revision of engineering and procedure development procedures, and training.

In Attachment 2 to LER 97-003-05, due dates were provided for the modification of procedures to ensure compliance with technical specifications. Each of the procedure modifications not yet completed is being tracked by FPC and by the NRC as Restart Issues R-01A, R-01E, R-01F, and R-01G for the current outage. In LER-97-003-05, FPC also committed to performance of testing with the modified procedures to ensure that surveillance requirements are met for system operability at appropriate tinues during the startup from the current outage. Therefore, FPC considers the requested actions of Generic Letter 96-01 to be complete.

If you have any questions regarding this letter, please contact Mr. David F. Kunsemiller, Manager, Nuclear Licensing, at (352) 563-4566.

Sincerely,

John Paul Cowan Vice President

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Nuclear Production

JPC:WJL

xc: Regional Administrator, Region II

Senior Resident Inspector NRR Project Manager U.S Nuclear Regulatory Commission 3F0997-12 Page 3 of 3

STATE OF FLORIDA **COUNTY OF CITRUS**

John Paul Cowan states that he is the Vice President, Nuclear Production for Florida Power Corporation; that he is authorized on the part of said company to sign and file with the Nuclear Regulatory Commission the information attached hereto; and that all such statements made and matters set forth therein are true and correct to the best of his knowledge, information, and helief.

> John Paul Cowan Vice President Nuclear Production

Sworn to and subscribed before me this 5th day of September by John Paul Cowan.

> AND THE PROPERTY OF THE PARTY O Ocie Edwards, Jr. Signature of Rulaw Public, State of Florida State of Florida of No. CC 483145 My Commission Expires 08/04/99 1.400-3-NOTARY - Fls. Notary 2-trice & Bonding Co. S

(Print, type, or stamp Commissioned Name of Notary Public)

Personally Known __

-OR-

Produced Identification NA

Attachment 1

List of Systems and Surveillance Requirements Verified by FPC's Generic Letter 96-01 Review

System	Surveillance Requirement
Emergency Feedwater Initiation and Control (includes Emergency Feedwater and Emergency Feedwater Vector Valve Logic)	3.3.11.2
	3.3.12.1
	3.3.13.1
	3.3.14.1
	3.7.5.3
	3.7.5.4
Engineered Safeguards Actuation System (includes Automatic Closure and Interlock System)	3.3.5.2
	3.3.6.1
	3.3.7.1
	3.4.13.2
	3.4.13.3
High Pressure Injection and Low Pressure Injection	3.5.2.3
	3.5.2.4
Reactor Building Isolation	3.6.3.7
Emergency Diesel Generators	3.3.8.1
	3.8.1.5
	3.8.1.10
Reactor Building Spray and Cooling	3.6.6.5
	3.6.6.6
	3.6.6.7
Reactor Protection System	3.3.1.4
	3.3.1.5
	3.3.2.1
	3.3.3.1
	3.3.4.1
Control Complex Air Handling System	3.3.16.2
	3.7.12.3
Reactor Building Purge Isolation	3.3.15.2
	3.9.3.2
ES Support Systems (includes Nuclear Services and Decay	3.7.7.2
Heat Seawater System, Nuclear Services Closed Cycle	3.7.7.3
Cooling Water System, and Decay Heat Closed Cycle	3.7.8.2
Cooling Water System)	3.7.9.2
	3.7.10.2