Progress Energy

Crystal River Nuclear Plant
Docket No. 50-302
Operating License No. DPR-72

February 22, 2007
3F0207-07

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

Subject: Pressurizer Dissimilar Welds and Reactor Coolant System Leakage Monitoring

Reference: PEF to NRC letter, dated January 29, 2007, Inspection and Mitigation of Alloy 600/82/182 Pressurizer Butt Welds

Dear Sir:

By letter dated January 29, 2007, Florida Power Corporation, doing business as Progress Energy Florida Inc. (PEF), notified the NRC of actions planned for inspection and mitigation of Alloy 600/82/182 butt welds on pressurizer spray, surge and relief lines at Crystal River Unit 3 (CR-3). The letter also contained a description of the primary system leakage monitoring program in place at CR-3 at that time. Following a phone call with the NRC on February 15, 2007, CR-3 has worked to implement a revised enhanced primary leakage monitoring program. A description of this newly enhanced program is enclosed.

As discussed in the referenced letter, mitigation of pressurizer Alloy 600/82/182 butt welds per MRP-139 at CR-3 will be completed in Refuel Outage 15 (15R), which is scheduled for Fall 2007. The results of the inspection or mitigation of pressurizer Alloy 600/82/182 butt weld locations will be reported to the NRC within 60 days of startup from the outage during which they are performed.

The primary system leakage monitoring program described in this letter supersedes that contained in the letter dated January 29, 2007. The commitments listed in the letter dated January 29, 2007 remain valid and are being tracked by CR-3 for implementation. The primary system leakage monitoring program in place at CR-3 is being enhanced to agree with NRC expectations. The enhanced Reactor Coolant System (RCS) leakage monitoring program will consist of daily determination of the RCS leakage rate in addition to monitoring parameters such as Reactor Building sump level and Reactor Building radiation monitors. The leakage determination process involves stabilization of the plant to minimize inaccuracies and calculation of Reactor Coolant System mass balance. The typical duration of this surveillance period is 2 to 8 hours. The surveillance will be performed daily as part of the enhanced primary system leakage monitoring program when a sufficient period of steady state conditions is present. Steady state operating conditions include stable RCS pressure, temperature, power level and pressurizer and makeup tank levels. If the surveillance is delayed due to changing plant conditions, the RCS leakage rate will be determined as soon as plant conditions permit.

If the daily RCS leakage measurement should increase by 0.1 gpm above the mean leakage value and the leakage is sustained for 72 hours, with at least 0.1 gpm not confirmed from sources other than the pressurizer nozzle welds, the Unit will be placed in Mode 3 within 6 hours and in Mode 5 within 36 hours. Prior to restart, CR-3 will perform bare metal visual examinations on unmitigated

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15760 W. Powerline Street
Crystal River, FL 34428

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pressurizer Alloy 600/82/182 butt welds. Daily values will be compared to a mean leakage value derived from previous RCS leakage surveillance results in order to reduce the effect of normal statistical variation.

An RCS leakage baseline is established from the first few stable RCS leakage surveillances performed following restart from a shutdown when the last bare metal visual inspection of unmitigated pressurizer butt welds was performed. If RCS leakage should increase by 0.25 gpm above the RCS leakage baseline and is sustained for 72 hours with 0.25 gpm not confirmed from sources other than the pressurizer nozzle welds, the Unit will be placed in Mode 3 within 6 hours and in Mode 5 within 36 hours. Prior to restart, CR-3 will perform bare metal visual examinations on unmitigated pressurizer Alloy 600/82/182 butt welds.

The enhanced leakrate monitoring program as described herein will be implemented by February 28, 2007 and will continue until mitigation of the pressurizer Alloy 600/82/182 welds, scheduled for Fall 2007.

Reactor Coolant System leakage is given a high priority by CR-3 management. This sensitivity is reflected by taking actions beyond that of the procedural requirements on a routine basis. Reactor Coolant System Unidentified Leakage information is included in daily plant information meetings and is a point of discussion at senior plant management meetings.

The enhanced guidance provides adequate assurance that structural integrity is maintained and that any primary system pressure boundary leakage is discovered in a timely manner.

This letter contains regulatory commitments as shown in the Attachment which supplement the commitments listed in the letter dated January 29, 2007. The NRC will be informed prior to any revision of the commitments contained in these letters.

CR-3 staff is available to meet with the NRC to discuss any of the information in this letter. If there are any questions regarding this submittal, please contact Mr. Paul Infanger, Supervisor, Licensing and Regulatory Programs at (352) 563-4796.

Sincerely,

Dale E. Young
Vice President
Crystal River Nuclear Plant

DEY/seb

Attachment: List of Regulatory Commitments

xc: NRC Project Manager
NRC Regional Office
NRC Resident Inspector

STATE OF FLORIDA

COUNTY OF CITRUS

Dale E. Young states that he is the Vice President, Crystal River Nuclear Plant for Florida Power Corporation, doing business as Progress Energy Florida, Inc.; 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 belief.

Dale E. Young
Vice President
Crystal River Nuclear Plant

The foregoing document was acknowledged before me this 22nd day of Feb., 2007, by Dale E. Young.

Signature of Notary Public
State of Florida

ELLEN DEPPOLDER
MY COMMISSION # DD 408539
EXPIRES: July 8, 2009
Bonded Thru Notary Public Underwriters

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

Personally Known ✓ -OR- Produced Identification _____

PROGRESS ENERGY FLORIDA, INC.

CRYSTAL RIVER - UNIT 3

DOCKET NUMBER 50 - 302 / LICENSE NUMBER DPR - 72

Pressurizer Dissimilar Welds and Reactor Coolant System Leakage Monitoring

Attachment

List of Regulatory Commitments

List of Regulatory Commitments

The following table identifies those actions committed to by Progress Energy Florida (PEF) in this document. Any other actions discussed in the submittal represent intended or planned actions by PEF. They are described to the NRC for the NRC's information and are not regulatory commitments. Please notify the Supervisor, Licensing and Regulatory Programs of any questions regarding this document or any associated regulatory commitments.

Commitment	Due Date
If RCS leakage should increase by 0.1 gpm from the mean leakage value, and is sustained for 72 hours with at least 0.1 gpm not confirmed from sources other than the pressurizer nozzle welds, the Unit will be placed in Mode 3 within 6 hours and in Mode 5 within 36 hours. Prior to restart, CR-3 will perform bare metal visual examinations on unmitigated pressurizer Alloy 600/82/182 welds.	Beginning 2/28/07 until mitigation of pressurizer Alloy 600/82/182 welds
If RCS leakage should increase by 0.25 gpm above the RCS leakage baseline (established using RCS leakrate information from the few stable surveillance calculations following the start of Mode 1 operation after the most recent bare metal visual examination) and is sustained for 72 hours with 0.25 gpm not confirmed from sources other than the pressurizer nozzle welds, the Unit will be placed in Mode 3 within 6 hours and in Mode 5 within 36 hours. Prior to restart, CR-3 will perform bare metal visual examinations on unmitigated pressurizer Alloy 600/82/182 welds	Beginning 2/28/07 until mitigation of pressurizer Alloy 600/82/182 welds
CR-3 will perform RCS leakrate monitoring on a daily basis.	Beginning 2/28/2007 until mitigation of pressurizer Alloy 600/82/182 welds
CR-3 will report details of inspection results of any unmitigated pressurizer Alloy 600/82/182 weld exams and any corrective or mitigative actions.	Within 60 days of startup from the outage during which the inspections are performed