



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

Ref: 10 CFR 50.55a

December 27, 2011
3F1211-03

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

Subject: Crystal River Unit 3 – Relief Request (RR) #11-001-MX, Revision 0, Containment Surveillance Schedule, Fourth 10-Year Interval of the Inservice Inspection (ISI) Program (Second 10-Year Containment ISI Interval)

Ladies and Gentlemen:

Pursuant to 10 CFR 50.55a(g)(5)(iii), Florida Power Corporation (FPC), doing business as Progress Energy Florida, Inc., hereby requests Nuclear Regulatory Commission (NRC) approval of the enclosed relief request for the fourth 10-year interval of the Inservice Inspection Program. Relief Request (RR) #11-001-MX, Revision 0, requests suspension of the schedule requirements of IWL-2410 and IWL-2420 for performing concrete and unbonded post-tensioning system examinations as they apply to Crystal River Unit 3's (CR-3's) 35th year (9th Surveillance), and to forgo performance of any outstanding examinations during the CR-3 containment repair. Completing the examinations required for this current 5 year interval is impractical due to the ongoing extensive repair of the CR-3 containment. The details of this 10 CFR 50.55a request are provided in the Enclosure to this letter.

This condition was discussed with NRC NRR and Regional personnel during a telephone conference call on October 27, 2011. At that time, FPC communicated the intent to submit this relief request.

FPC requests approval of Relief Request #11-001-MX, Revision 0, by November 3, 2012.

Once the repair/replacement activities to the CR-3 containment are completed, FPC will perform the code required pressure test(s) as well as a Structural Integrity Test. Prior to completing the repair/replacement activities, CR-3 will submit a proposal for alternatives to the requirements in Section IWL in accordance with 50.55a(a)(3)(i) to supplement this request and to restart the surveillance program. This second Relief Request will also propose an Aging Management Plan for the containment to satisfy the CR-3 License Renewal Commitment, Item 32.

In addition, this letter is also being submitted to inform the NRC that FPC will not be implementing previously approved Relief Request #08-001-MX, Revision 0, (TAC No. ME0227) regarding the use of an alternative examination schedule for tendons affected by CR-3 repair/replacement activities.

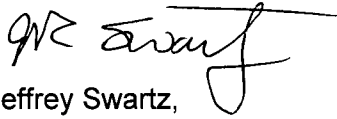
This correspondence contains no new regulatory commitments.

Progress Energy Florida, Inc.
Crystal River Nuclear Plant
15760 W. Power Line Street
Crystal River, FL 34428

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NR

If you have any questions regarding this submittal, please contact Mr. Dan Westcott, Superintendent, Licensing and Regulatory Programs at (352) 563-4796.

Sincerely,

A handwritten signature in black ink, appearing to read "JS Swartz". The signature is written in a cursive style with a large, sweeping initial "JS" and a long horizontal line extending to the right.

Jeffrey Swartz,
Director - Site Operations
Crystal River Nuclear Plant

JS/scp

Enclosure: Relief Request #11-001-MX, Revision 0

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

CRYSTAL RIVER UNIT 3

DOCKET NUMBER 50-302 / LICENSE NUMBER DPR-72

ENCLOSURE

RELIEF REQUEST #11-001-MX, REVISION 0

**CRYSTAL RIVER UNIT 3 INSERVICE INSPECTION
RELIEF REQUEST #11-001-MX,
SUSPENSION OF THE SCHEDULE REQUIREMENTS OF IWL-2410 AND IWL-2420
FOR PERFORMING CONCRETE AND UNBONDED POST-TENSIONING SYSTEM
EXAMINATIONS**

Relief Request in Accordance with 10 CFR 50.55a(g)(5)(iii)

--Inservice Inspection Impracticality--

1. ASME Code Components Affected

The affected components are the concrete of the Crystal River Unit 3 (CR-3) concrete containment and the unbonded containment post-tensioning system.

2. Applicable Code Edition and Addenda

CR-3 is currently in the Fourth Ten-Year Inservice Inspection (ISI) Interval (Second 10-year Containment ISI Interval). The American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (B&PV) Code of Record for the Interval is ASME Section XI 2001 Edition, up to and including the 2003 Addenda.

3. Applicable Code Requirements

IWL-2410 CONCRETE

(a) Concrete shall be examined in accordance with IWL-2410 at 1, 3, and 5 years following the completion of the containment Structural Integrity Test CC-6000 and every 5 years thereafter.

(c) The 10 year and subsequent examinations shall commence not more than 1 year prior to the specified dates and shall be completed not more than 1 year after such dates. If plant operating conditions are such that examination of portions of the concrete cannot be completed within this stated time interval, examination of those portions may be deferred until the next regularly scheduled outage.

IWL-2420 UNBONDED POST-TENSIONING SYSTEMS

(a) Unbonded post-tensioning systems shall be examined in accordance with IWL-2420 at 1, 3, and 5 years following the completion of the containment Structural Integrity Test (SIT) CC-6000 and every 5 years thereafter.

(c) The 10 year and subsequent examinations shall commence not more than 1 year prior to the specified dates and shall be completed not more than 1 year after such dates.

4. Impracticality of Compliance

The current CR-3 surveillance interval, the 35th year (9th Surveillance) since the SIT including the 1 year allowance, will end November 3, 2012. In October 2009, CR-3 shut down for refueling outage 16 and to replace the Steam Generators (SG). During the concrete removal of the containment wall for the SG replacement, CR-3 discovered delamination (or separation) within the concrete in the containment wall between buttresses 3 and 4 (referred to as bay 3-4). To repair this delamination, numerous horizontal and vertical tendons were detensioned.

On March 14, 2011, during the final phase of containment retensioning to complete the repair of bay 3-4, CR-3 experienced an additional delamination of concrete in the containment wall between buttresses 5 and 6 (bay 5-6) at a depth of approximately 10 inches from the outer surface. Further tendon tensioning was stopped, leaving 30 horizontal tendons tensioned to 50% of design.

On July 26, 2011, acoustic monitors at CR-3's repair site sounded indicating surface spalling (which occurs when a smaller outside layer of concrete breaks away from a larger area of a concrete wall) on the containment wall between buttresses 1 and 2 (bay 1-2). The surface spalling occurred in an isolated area of the wall. In the course of investigating the spalling, indications of additional delamination were discovered within the wall of bay 1-2. An analysis completed in November 2011 confirmed the presence of delamination in this bay.

The bay 1-2 development validates decisions announced in June 2011 regarding the company's decision to repair the containment building. The delaminated area within bay 1-2 will be adequately addressed without any major changes to that repair plan. The previously announced repair plan includes systematically removing and replacing the concrete in nearly all areas of the containment wall (to the liner from near the top of the bays to the rooflines of adjacent structures and below in some cases), except in the lowest elevations and in areas where the concrete was already replaced during the original repair (bay 3-4).

The vast majority of the unbonded post-tensioning tendons in the cylinder of the containment will be detensioned. In the areas where the concrete is being removed and replaced the tendons will also be removed and replaced. Degreasing and partial detensioning of vertical tendons to 75% of design has already been accomplished. The remaining repair/replacement activities will extend beyond November 3, 2012.

5. Burden Caused by Compliance

Due to the delaminations and the repair/replacement activities, examinations of the concrete and tendons during the required schedule period are for the most part impossible. Any examinations that could be accomplished would be meaningless in terms of providing evidence of the containment continuing to satisfy its design basis. For example, performing tendon lift-off testing without all of the tendons fully tensioned in the structure, doing tendon lift-offs for tendons that will be replaced, or performing visual examinations of concrete that will be replaced will add no value. Conducting the required examinations according to the current schedule would not provide valid results.

6. Proposed Relief and Basis for Use

Florida Power Corporation (FPC) requests relief in accordance with 10 CFR 50.55a(g)(5)(iii) due to the ongoing repair of the CR-3 containment. Specifically, FPC requests relief from the examination schedules in IWL-2410(c) and IWL-2420(c) as they apply to CR-3's 35th year (9th Surveillance), and to forgo performance of any outstanding examinations due to the extensive repair/replacement activities as indicated in Item 4 above.

The CR-3 construction permit, CPPR-51, was issued on September 25, 1968. Therefore, in accordance with 10 CFR 50.55a(g)(1), the provisions of 10 CFR 50.55a(g)(5) are applicable to CR-3.

7. Duration of Proposed Alternative

The duration of the requested relief will be until completion of the containment repair/replacement activities, as defined by completion of the repair/replacement pressure test(s).

8. Precedents

None identified.

9. References

None.