



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

Ref: 10 CFR 50.54(f)

September 18, 2006
3F0906-03

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
11555 Rockville Pike
Rockville, MD 20852

Subject: Crystal River Unit 3 – Supplemental Information and Revised Commitment Regarding 60 Day Response to NRC Bulletin 2004-01, “Inspection of Alloy 82/182/600 Materials Used in the Fabrication of Pressurizer Penetrations and Steam Space Piping Connections at Pressurized-Water Reactors”

- References:
1. PEF to NRC letter dated July 26, 2004, Crystal River Unit 3 – 60 Day Response to NRC Bulletin 2004-01, “Inspection of Alloy 82/182/600 Materials Used in the Fabrication of Pressurizer Penetrations and Steam Space Piping Connections at Pressurized-Water Reactors”
 2. PEF to NRC letter dated February 7, 2006, Crystal River Unit 3 – Response to Item (2)(a) of NRC Bulletin 2004-01, “Inspection of Alloy 82/182/600 Materials Used in the Fabrication of Pressurizer Penetrations and Steam Space Piping Connections at Pressurized-Water Reactors”

Dear Sir:

Florida Power Corporation, doing business as Progress Energy Florida, Inc. (PEF), hereby submits supplemental information and a revised Regulatory Commitment regarding the Crystal River Unit 3 (CR-3) 60 Day Response to NRC Bulletin 2004-01, “Inspection of Alloy 82/182/600 Materials Used in the Fabrication of Pressurizer Penetrations and Steam Space Piping Connections at Pressurized-Water Reactors.” This submittal is in response to NRC questions about this issue and CR-3 responses discussed with the NRC staff during a teleconference held on July 31, 2006.

Attachment A to this letter contains supplemental information specific to Reference 1. Table B of Reference 1 describes the inspection program currently implemented at CR-3 for the pressurizer penetrations which have been identified as being constructed using Alloy 82/182/600 weld material. Table B lists the specific inspection technique, frequency and extent of coverage for these inspections. The specific date of each inspection is also provided. A note has been added to the table to indicate the inspection of the adjacent base metal in the immediate vicinity of certain pressurizer Alloy 182 welds.

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Crystal River Nuclear Plant
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Crystal River, FL 34428

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Attachment B is also related to Reference 1. The Regulatory Commitment in Reference 1 did not specify the inspection of adjacent base metal in the immediate visible vicinity of the pressurizer Alloy 182 welds. Attachment B provides a revised Regulatory Commitment to perform Bare Metal Visual exams on certain pressurizer Alloy 182 welds and adjacent base metal in the immediate visible vicinity, where practical, every refueling outage until mitigation is performed, additional guidance is provided by the materials Reliability Program (MRP), or new ASME Code or regulatory requirements are imposed. Visual aids, as necessary, and visual examination personnel will be certified in accordance with Progress Energy's written practice and ASME Section XI, as supplemented by the March 2002 Electric Power Research Institute (EPRI) report, as applicable. The base metal is not inspected on some pressurizer connections where visible inspection is not practical. For example, the 1-inch Vent and Sample Nozzle to Upper Head J-groove Weld (X009) is welded to the interior of the vessel wall by an Alloy 182 J-groove weld and a 1-inch sample nozzle (Water Space) is attached to the pressurizer vessel shell inner diameter surface. These welds are examined for evidence of leakage and degradation, but the base metal is not in a practical location for visible inspection.

Attachment C is pertinent to Reference 2. Reference 2 is the CR-3 response to Item (2)(a) of NRC Bulletin 2004-01, "Inspection of Alloy 82/182/600 Materials Used in the Fabrication of Pressurizer Penetrations and Steam Space Piping Connections at Pressurized-Water Reactors." The information in Reference 2 was provided within 60 days of plant restart following CR-3 Refueling Outage 14 (14R) which was completed December 10, 2005. During this time, the inspection program as described in Attachment A, was implemented. Therefore, a revised copy of this inspection summary is also being included in this letter to denote the pressurizer Alloy 182 welds where a visual inspection was performed on the adjacent base metal.

If you have 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

Attachments:

- A. Supplemental Information Regarding 60 Day Response to NRC Bulletin 2004-01
- B. Revised Regulatory Commitment
- C. Results of Alloy 82/182/600 Inspections Performed During 14R

xc: NRR Project Manager
Regional Administrator, Region II
Senior 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. (PEF); 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 18th day of September, 2006, by Dale E. Young.



Signature of Notary Public
State of Florida



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

Personally Known ✓ -OR- Produced Identification _____

PROGRESS ENERGY FLORIDA, INC.

CRYSTAL RIVER UNIT 3

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ATTACHMENT A

Supplemental Information Regarding 60 Day Response to NRC Bulletin 2004-01

Table B

**CR-3 Pressurizer Penetrations and Steam Space Piping Connections:
Summary of Past and Scheduled Inspections**

Component and ISI Program Identifier	Material	ASME XI Code Exam Method (>90% Coverage) and Date Performed	Visual Inspections Performed (100%)	Comments	Scheduled Exams	Visual Exams Scheduled (100%)
1-inch Vent and Sample Nozzle to Upper Head J-groove Weld (X009)	Alloy 182	N/A	BMV performed in 10/2001 and 10/2003	VT-2 performed every Outage per ASME Section XI	N/A	BMV every Refuel Outage
2.5 inch Pressure Relief Nozzle to Safe End Weld and Nozzle Butter* (B4.1.3, B4.1.4, and X026)	Alloy 82/182	UT in 10/1981 PT in 10/1981 UT in 6/1992 PT in 6/1992	BMV performed 10/2003	VT-2 performed every Outage per ASME Section XI	PT in 10/2007 (Once per 10 years per ASME Section XI)	BMV every Refuel Outage
2.5 inch Pressure Relief Nozzle to Safe End Weld and Nozzle Butter* (B4.1.5, B4.1.6, and X026)	Alloy 82/182	UT in 4/1983 PT in 4/1983 UT in 6/1992 PT in 6/1992	BMV performed 10/2003	VT-2 performed every Outage per ASME Section XI	PT in 10/2007 (Once per 10 years per ASME Section XI)	BMV every Refuel Outage
2.5 inch Pressure Relief Nozzle to Safe End Weld and Nozzle Butter* (B4.1.7, B4.1.8, and X026)	Alloy 82/182	UT in 5/1985 PT in 5/1985 UT in 4/1994 PT in 4/1994	BMV performed 10/2003	VT-2 performed every Outage per ASME Section XI	PT in 10/2005 (Once per 10 years per ASME Section XI)	BMV every Refuel Outage
4 inch Safe End to Spray Nozzle Weld* (B4.1.1, B4.1.2, and X007)	Alloy 82	UT in 5/1978 PT in 5/1978 PT in 5/1990 UT in 6/1992	BMV performed 10/1999 and 10/2003	VT-2 performed every Outage per ASME Section XI	UT in 10/2005 PT in 10/2005 (Once per 10 years per ASME Section XI)	BMV every Refuel Outage
Extension Pin to Spray Nozzle Weld (X008)	Alloy 82	N/A	N/A	Internal to vessel	N/A	Visual when manway opened for maintenance.
Extension Pin to Internal Spray Pipe (X008)	Alloy 82	N/A	N/A	Internal to vessel	N/A	Visual when manway opened for maintenance.

* Bare Metal Visual exams will be performed on the pressurizer Alloy 182 weld and adjacent base metal in the immediate visible vicinity.

Table B

CR-3 Pressurizer Penetrations and Steam Space Piping Connections:
Summary of Past and Scheduled Inspections

Component and ISI Program Identifier	Material	ASME XI Code Exam Method (>90% Coverage) and Date Performed	Visual Inspections Performed (100%)	Comments	Scheduled Exams	Visual Exams Scheduled (100%)
4 Upper Weld Buttons (X008)	Alloy 82	N/A	N/A	Internal to vessel	N/A	Visual when manway opened for maintenance.
4 Lower Weld Pads (X008)	Alloy 82	N/A	N/A	Internal to vessel	N/A	Visual when manway opened for maintenance.
1½ -inch Thermowell to Pressurizer J-groove Weld (X005)	Alloy 182	N/A	BMV performed 10/1999 and 10/2003	VT-2 performed every Outage per ASME Section XI	N/A	BMV every Refuel Outage
1-inch Level Sensing Nozzle (X022) (Steam Space Qty 3)	Originally Alloy 182, Replaced in 2003 with Alloy 690/52 weld material	N/A	BMV performed 10/2003	VT-2 performed every Outage per ASME Section XI	N/A	BMV during Refuel Outage following replacement, then once every 10 years
1-inch Level Sensing Nozzle to Pressurizer Shell J-groove Weld, (X006) (Water Space Qty 3)	Alloy 182	N/A	BMV performed 10/1999 and 10/2003	VT-2 performed every Outage per ASME Section XI	N/A	BMV every Refuel Outage
1-inch Sampling Nozzle to Pressurizer Shell J-groove Weld, (X023)	Alloy 182	N/A	BMV performed 10/2003	VT-2 performed every Outage per ASME Section XI	N/A	BMV every Refuel Outage

* Bare Metal Visual exams will be performed on the pressurizer Alloy 182 weld and adjacent base metal in the immediate visible vicinity.

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ATTACHMENT B

Revised Regulatory Commitment

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.

ID Number	Commitment	Due Date
3F0906-03	Bare Metal Visual exams will be performed on the pressurizer Alloy 182 welds and adjacent base metal in the immediate visible vicinity, where practical, during every refueling outage until mitigation is performed, additional guidance is provided by the Materials Reliability Program (MRP) or new ASME Code or regulatory requirements are imposed. Visual aids, as necessary, and visual examination personnel will be certified in accordance with Progress Energy's written practice and ASME Section XI, as supplemented by the March 2002 Electric Power Research Institute (EPRI) report, as applicable.	Every Refueling Outage

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ATTACHMENT C

Results of Alloy 82/182/600 Inspections Performed During 14R

Results of Alloy 82/182/600 Inspections Performed During 14R

Component and ISI Program Identifier	Material	Comments	Scheduled Exams	Visual Exams Scheduled (100%)	14R Exam	Comments
1-inch Vent and Sample Nozzle to Upper Head J-groove Weld (X009)	Alloy 182	VT-2 performed every Outage per ASME Section XI	N/A	BMV every Refuel Outage	BMV performed during 14R	No evidence of leakage or degradation
2.5 inch Pressure Relief Nozzle to Safe End Weld and Nozzle Butter* (B4.1.3, B4.1.4, and X026)	Alloy 82/182	VT-2 performed every Outage per ASME Section XI	PT in 10/2007 (Once per 10 years per ASME Section XI)	BMV every Refuel Outage	BMV performed during 14R UT (thickness and contour) performed in 14R (B4.1.4) ** See Below	No evidence of leakage or degradation
2.5 inch Pressure Relief Nozzle to Safe End Weld and Nozzle Butter* (B4.1.5, B4.1.6, and X026)	Alloy 82/182	VT-2 performed every Outage per ASME Section XI	PT in 10/2007 (Once per 10 years per ASME Section XI)	BMV every Refuel Outage	BMV performed during 14R UT (thickness and contour) performed in 14R (B4.1.6) ** See Below	No evidence of leakage or degradation
2.5 inch Pressure Relief Nozzle to Safe End Weld and Nozzle Butter* (B4.1.7, B4.1.8, and X026)	Alloy 82/182	VT-2 performed every Outage per ASME Section XI	PT in 10/2005 (Once per 10 years per ASME Section XI)	BMV every Refuel Outage	BMV performed during 14R (X026) UT (thickness and contour) performed in 14R (B4.1.8) ** See Below	No evidence of leakage or degradation

Results of Alloy 82/182/600 Inspections Performed During 14R

Component and ISI Program Identifier	Material	Comments	Scheduled Exams	Visual Exams Scheduled (100%)	14R Exam	Comments
4 inch Safe End to Spray Nozzle Weld* (B4.1.1, B4.1.2, and X007)	Alloy 82	VT-2 performed every Outage per ASME Section XI	UT in 10/2005 PT in 10/2005 (Once per 10 years per ASME Section XI)	BMV every Refuel Outage	BMV performed during 14R (X007) UT performed in 14R (B4.1.1) UT (thickness and contour) performed in 14R (B4.1.2) ** See Below	No evidence of leakage or degradation
Extension Pin to Spray Nozzle Weld (X008)	Alloy 82	Internal to vessel	N/A	Visual when manway opened for maintenance.	N/A	Manway not opened
Extension Pin to Internal Spray Pipe (X008)	Alloy 82	Internal to vessel	N/A	Visual when manway opened for maintenance.	N/A	Manway not opened
4 Upper Weld Buttons (X008)	Alloy 82	Internal to vessel	N/A	Visual when manway opened for maintenance.	N/A	Manway not opened
4 Lower Weld Pads (X008)	Alloy 82	Internal to vessel	N/A	Visual when manway opened for maintenance.	N/A	Manway not opened
1½ -inch Thermowell to Pressurizer J-groove Weld (X005)	Alloy 182	VT-2 performed every Outage per ASME Section XI	N/A	BMV every Refuel Outage	BMV performed during 14R	No evidence of leakage or degradation
1-inch Level Sensing Nozzle (X022) (Steam Space Qty 3)	Originally Alloy 182, replaced in 2003 with Alloy 690/52 weld	VT-2 performed every Outage per ASME Section XI	N/A	BMV during Refuel Outage following replacement, then once	BMV performed during 14R	No evidence of leakage or degradation

Results of Alloy 82/182/600 Inspections Performed During 14R

Component and ISI Program Identifier	Material	Comments	Scheduled Exams	Visual Exams Scheduled (100%)	14R Exam	Comments
	material			every 10 years		
1-inch Level Sensing Nozzle to Pressurizer Shell J-groove Weld, (X006) (Water Space Qty 3)	Alloy 182	VT-2 performed every Outage per ASME Section XI	N/A	BMV every Refuel Outage	BMV performed during 14R	No evidence of leakage or degradation
1-inch Sampling Nozzle to Pressurizer Shell J-groove Weld, (X023)	Alloy 182	VT-2 performed every Outage per ASME Section XI	N/A	BMV every Refuel Outage	BMV performed during 14R	No evidence of leakage or degradation

* Bare Metal Visual exams were performed on the pressurizer Alloy 182 weld and adjacent base metal in the immediate visible vicinity.

**NRC to PEF letter dated September 20, 2005, Crystal River Unit 3 – Safety Evaluation for Relief Request Regarding the Risk-Informed Inservice Inspection Program (TAC No. MC5085) authorized the implementation of the proposed CR-3 RI-ISI Program. Under the RI-ISI Program, PT examinations with program identifiers B4.1.2, B4.1.4, B4.1.6 and B4.1.8 were replaced with BMVs and Thickness and Contours measurements, in accordance with the recommendations of MRP letter 2004-05.