



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

January 28, 2008
3F0108-10

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

Subject: Crystal River Unit 3 - Summary of Reactor Pressure Vessel Head Inspection per First Revised NRC Order (EA-03-009)

- References:
1. NRC to CR-3 letter, dated February 20, 2004, "Issuance of First Revised NRC Order (EA-03-009) Establishing Interim Inspection Requirements for Reactor Pressure Vessel Heads at Pressurized Water Reactors"
 2. CR-3 to NRC letter dated March 9, 2004, "Crystal River Unit 3 - Twenty - Day Response to First Revised NRC Order (EA-03-009) Establishing Interim Inspection Requirements for Reactor Pressure Vessel Heads at Pressurized Water Reactors"

Dear Sir:

In Reference 1, the Nuclear Regulatory Commission (NRC) issued the First Revised NRC Order (EA-03-009) which established interim inspection requirements for Reactor Pressure Vessel (RPV) Heads at Pressurized Water Reactors. The Order required that a summary of these inspections be submitted to the NRC within 60 days of returning the plant to operation.

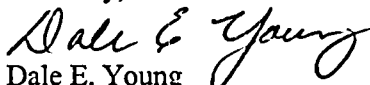
Florida Power Corporation (FPC), doing business as Progress Energy Florida Inc., Crystal River Unit 3 (CR-3), performed inspections in accordance with paragraph IV.C (5)(a) during Refueling Outage 15. CR-3 returned to operation on December 7, 2007. This report is being submitted within 60 days of returning the plant to operation as required by the Order.

A summary of the RPV head inspection is shown in the Attachment. During the inspection, no evidence of boron or corrosive product was identified.

This submittal contains no new regulatory commitments.

If you have any questions regarding this submittal, please contact Mr. Dennis Herrin, Acting Supervisor, Licensing and Regulatory Programs at (352) 563-4633.

Sincerely,


Dale E. Young
Vice President
Crystal River Nuclear Plant

DEY/seb

Attachment

xc: NRC Project Manager
NRC Regional Office
NRC Resident Inspector

A101
NRR

STATE OF FLORIDA

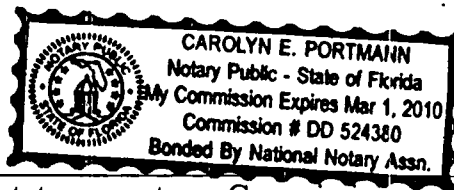
COUNTY OF CITRUS

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
Dale E. Young
Vice President
Crystal River Nuclear Plant

The foregoing document was acknowledged before me this 28 day of January, 2008, by Dale E. Young.

Carolyn E. Portmann
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

DOCKET NUMBER 50 - 302 / LICENSE NUMBER DPR - 72

Attachment

**Summary of Inspection Performed in Accordance with
NRC Order EA-03-009 Paragraph IV.C (5)(a)**

**Summary of Inspection Performed in Accordance with
NRC Order EA-03-009 Paragraph IV.C (5)(a)**

During Refueling Outage 15 (R15), Florida Power Corporation (FPC), doing business as Progress Energy Florida Inc., Crystal River Unit 3 (CR-3), performed inspections of the reactor pressure vessel (RPV) head in accordance with those techniques described in Nuclear Regulatory Commission (NRC) Order (EA-03-009) paragraph IV.C.(5)(a).

As described in NRC Order EA-03-009, Crystal River Unit 3 (CR-3) is in susceptibility category "Replaced." The RPV head was replaced in Fall 2003. The replacement RPV head has been designed to minimize the concerns for Control Rod Drive Mechanism (CRDM) nozzle cracking and leakage associated with Primary Water Stress Corrosion Cracking (PWSCC) of the Alloy 600 nozzle material. Alloy 690 base and weld material was used for the CR-3 CRDM nozzles on the replaced RPV head. The calculated value of Effective Degradation Years (EDY) for the RPV head is less than 8. In addition, no previous inspection findings require the classification to be re-assigned as "High."

Bare metal visual examination was performed on 100 percent of the RPV head surface including 360 degrees around each RPV head penetration nozzle. No evidence of boron or corrosive product was identified. The exam was performed with the head on the vessel after fuel reload and after de-conning the reactor cavity. Two, 2 person teams utilized snake eye cameras, mirrors flashlights and spotlights. Video recording equipment was also available to document areas of concern, of which, none were found. Teams of two started 180 degrees apart and moved in a counterclockwise direction accessing each hatch cover, ensuring proper inspection coverage.

A white flakey substance was observed on the surface of the head. The material is soft and non-adhering. A chemical analysis was performed on the substance and it was determined not to be boron. This substance has been previously identified as originating from the head insulation package from above. Photographs have been taken to document the discovery. This will be an ongoing discovery for future examinations and may require cleaning by vacuum or wet cloth.