

January 18, 2005

Mr. Dale E. Young, Vice President  
Crystal River Nuclear Plant (NA1B)  
ATTN: Supervisor, Licensing & Regulatory Programs  
15760 W. Power Line Street  
Crystal River, Florida 34428-6708

SUBJECT: CRYSTAL RIVER NUCLEAR PLANT, UNIT 3 - RESPONSE TO NRC  
BULLETIN 2003-02, "LEAKAGE FROM REACTOR PRESSURE VESSEL  
LOWER HEAD PENETRATIONS AND REACTOR COOLANT PRESSURE  
BOUNDARY INTEGRITY" (TAC NO. MC0532)

Dear Mr. Young:

On August 21, 2003, the U.S. Nuclear Regulatory Commission (NRC) issued NRC Bulletin 2003-02, "Leakage from Reactor Pressure Vessel Lower Head Penetrations and Reactor Coolant Pressure Boundary Integrity," to the industry. This Bulletin informed addressees that current methods of inspecting the reactor pressure vessel (RPV) lower heads may need to be supplemented with bare-metal visual inspections in order to detect reactor coolant pressure boundary leakage and requested these addressees provide the NRC with information related to inspections that have been performed to verify the integrity of the RPV lower head penetrations.

The Bulletin requested that addressees provide a description of the RPV lower head penetration inspection program that would be implemented at their respective plants during the next and subsequent refueling outages. This description was to include the extent of the inspection, the inspection methods to be used, the qualification standards for the inspection methods, the process used to resolve the source of findings of boric acid deposits or corrosion, the inspection documentation to be generated, and the basis for concluding that their plant satisfied applicable regulatory requirements related to the structural and leakage integrity of the RPV lower head penetrations.

By letter dated September 17, 2003, Florida Power Corporation, doing business as Progress Energy Florida, Inc. (PEF) provided its response to this request. PEF indicated it planned to perform a bare-metal visual examination of all 52 RPV lower head penetrations, including 100 percent of the circumference of each penetration as it enters the RPV lower head, during the fall 2003 refueling outage at Crystal River Nuclear Plant, Unit 3. In its same response, PEF committed to scheduling and performing the enhanced visual examinations of each RPV lower head penetration to coincide with the 10-year inservice inspection (ISI) examinations of the RPV. The next 10-year ISI RPV exam is scheduled for 2007. PEF stated that it would monitor industry experience to adjust this schedule appropriately. There are a number of ongoing industry and NRC staff activities related to developing criteria for RPV lower head inspections. The NRC staff expects that the criteria for these inspections will involve periodic bare-metal visual examinations or their equivalent.

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The Bulletin also requested that addressees provide a summary of the RPV lower head penetration inspection that was performed at their plants, the extent of the inspection and the methods used, a description of the as-found condition of the lower head, any findings of relevant indications of through-wall leakage, and a summary of the disposition of any findings of boric acid deposits and any corrective actions taken as a result of indications found.

By letter dated December 17, 2003, PEF provided a summary of its inspection results at Crystal River, Unit 3. PEF reported it had performed a 360-degree bare-metal visual examination of the 52 RPV lower head penetrations with no evidence of penetration leakage observed.

Based on its review of PEF's responses to NRC Bulletin 2003-02, the NRC staff finds that PEF has met the reporting requirements of the Bulletin. Accordingly, TAC No. MC0532 is closed for Crystal River, Unit 3.

Sincerely,

*/RA/*

Brenda Mozafari, Senior Project Manager, Section 2  
Project Directorate II  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket No. 50-302

cc: See next page

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By letter dated December 17, 2003, PEF provided a summary of its inspection results at Crystal River, Unit 3. PEF reported it had performed a 360-degree bare-metal visual examination of the 52 RPV lower head penetrations with no evidence of penetration leakage observed.

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*/RA/*

Brenda Mozafari, Senior Project Manager, Section 2  
Project Directorate II  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

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