



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001
February 12, 2009

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 UNIT 3 - REQUEST FOR ADDITIONAL INFORMATION,
REGARDING RELIEF REQUEST 08-002-RR, REVISION 0, DISSIMILAR METAL
WELD OVERLAY REPAIR DURING THE FOURTH 10-YEAR INSERVICE
INSPECTION INTERVAL (TAC NO. ME0023)

Dear Mr. Young:

By letter dated October 29, 2008, Florida Power Corporation submitted Relief Request 08-002-RR, Revision 0 (Agencywide Documents Access and Management System Accession No. ML083080296) requesting the use of alternative requirements for a scheduled preemptive full structural weld overlay during the fourth 10-year inservice inspection interval that is planned to mitigate the potential for primary water stress corrosion cracking susceptibility in the dissimilar metal weld of the pressurizer surge line at Crystal River Unit 3. The Nuclear Regulatory Commission (NRC) staff has reviewed the information the licensee provided and determined that additional information is required in order to complete the evaluation. The NRC staff's request for additional information is enclosed.

Please respond to the enclosed questions within 30 days of the date of this letter. I can be reached at 301-415-1447, if you have any questions.

Sincerely,

A handwritten signature in black ink that reads "Farideh E. Saba".

Farideh E. Saba, Senior Project Manager
Plant Licensing Branch II-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-302

Enclosures: As stated

cc w/encl: Distribution via ListServ

REQUEST FOR ADDITIONAL INFORMATION
REGARDING CRYSTAL RIVER UNIT 3
RELIEF REQUEST 08-002-RR, REVISION 0
DISSIMILAR METAL WELD OVERLAY REPAIR DURING FOURTH 10-YEAR ISI INTERVAL
DOCKET NO. 50-302, LICENSE NO. DPR-72

1. In Attachment 1, paragraph 5.1, SWOL [Structural Weld Overlay] Design, the licensee states that there may be small remnants of austenitic weld overlay material remaining on the nozzle/dissimilar metal weld (DMW)/pipe surface that may not be removed prior to the new SWOL.
 - a. Please provide detailed information on the prior weld overlay and the reason for its removal, along with its composition particularly its sulfur content, its physical area and thickness, and the type and location of its substrate material (on which the overlay is welded).
 - b. Discuss any changes that are being applied to the previous (existing) weld overlay design, procedures and materials to ensure that the upcoming weld overlay will be sound.
 - c. Please discuss the possible implications of the effects of the chemistry of the existing overlay on the new overlay or barrier layer.
2. American Society of Mechanical Engineers Code Cases N-638-1, N-638-2 and N-638-4 are cited in the relief request (e.g., Pages 6, 7 and 8 of Attachment 1). Please clarify which version of the code case is being applied.
3. Attachment 4 discusses the use of a barrier layer to prevent the hot cracking that occurs when Alloy 52 is deposited on high sulfur austenitic stainless steel and a barrier layer to prevent cracking between ER309L and Alloy 182.
 - a. Please provide details of the geometry of the proposed barrier layers described in Attachment 4 and the details of the design of the interface between the Alloy 182 DMW, the barrier layer and the stainless steel pipe to prevent mixing of the ER309L barrier layer and Alloy 182 weld metal.
 - b. Attachment 3, Section 1.1(c) states that the weld overlay will be deposited using a welding procedure specification (WPS) for groove welding. The Nuclear Regulatory Commission staff is concerned that chemical and physical interactions between the base metals, barrier layers and Alloy 52M overlay material might result in inadequate tensile properties of the final SWOR. Please submit the WPS and the associated procedure qualification record for the subject SWOR with barrier layers.

Enclosure

4. In the previously submitted weld overlay relief request (07-003-RR) dated September 13, 2007, the licensee committed to submit preliminary analysis results of the residual stress and flaw growth analysis of the repaired weldment, including crack growth calculation, prior to Mode 4 of restart, and the final analysis results within 60 days of plant restart. However, in the October 29, 2008 submittal, the previous commitments have been changed and it is not clear when and what analyses results will be submitted for the proposed overlay. Please clarify.

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/RA/

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*by Memorandum

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