



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

Ref: 10 CFR 50.54(f)

August 4, 2008
3F0808-02

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

Subject: Crystal River Unit 3 – Supplemental Response to NRC Generic Letter 2004-02, “Potential Impact of Debris Blockage on Emergency Recirculation During Design Basis Accidents at Pressurized-Water Reactors,” Revision 1

Reference: Crystal River Unit 3 – Supplemental Response to NRC Generic Letter 2004-02, “Potential Impact of Debris Blockage on Emergency Recirculation During Design Basis Accidents at Pressurized-Water Reactors,” dated February 29, 2008

Dear Sir:

On February 29, 2008, Florida Power Corporation, doing business as Progress Energy Florida, Inc., provided a supplemental response to Generic Letter (GL) 2004-02, “Potential Impact of Debris Blockage on Emergency Recirculation During Design Basis Accidents at Pressurized-Water Reactors,” for Crystal River Unit 3 (CR-3). That supplemental response was prepared using guidance for the preparation of GL supplemental responses submitted to the Nuclear Energy Institute (NEI) by the Nuclear Regulatory Commission (NRC) for industry distribution.

The purpose of this submittal is to provide corrected information to Specific Guidance for Review Area #3, “Specific Information Regarding Methodology for Demonstrating Compliance,” Section #0, “Chemical Effects,” Subsection #7, “WCAP Base Model,” in the above referenced submittal. The chemical effects testing for CR-3 was performed based on draft calculations for chemical precipitate formation. The testing used the methods presented in WCAP-16530-NP, Revision 0, with refinements for phosphate inhibition as presented in WCAP-16785-NP, Revision 0. Due to non-conservatism in the draft calculation, the test used amounts of precipitates that were less than the final predicted amounts of precipitates. The results of the non-conservative test were determined to be acceptable due to the negligible impact of the precipitates on strainer head loss as demonstrated during the chemical effects testing.

Upon receipt of the final documentation pertaining to chemical precipitate generation and chemical effects testing, CR-3 personnel realized that the test vendor attempted to incorporate the WCAP-16530-NP chemical precipitate loads into the test by adding additional Aluminum Oxyhydroxide. This resulted in the total mass of Aluminum Oxyhydroxide used in the test being equal to that calculated in WCAP-16530-NP. The mass of precipitates predicted by the WCAPs, the supplemental-response-reported mass of precipitates used for testing, and the actual mass of precipitates used for testing, are shown in the following table:

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

A116
NRR

Precipitate	WCAP-16530- NP Calculated Mass (lbm)*	WCAP-16785- NP Calculated Mass (lbm)*	Mass Reported to be Used for Testing in Supplemental Response (lbm)*	Actual Mass Used for Testing (lbm)*
Sodium Aluminum Silicate	47.5	47.5	38.8	38.8
Aluminum Oxyhydroxide	38.1	25.1	18.0	38.1
Calcium Phosphate	3.1	3.1	3.1	3.1
Total Precipitates	88.7	75.7	59.9	80

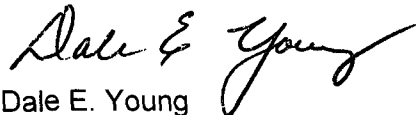
* The presented masses are based on the full-scale strainer. The mass of precipitates used in the test was scaled from these values based on the ratio of test strainer surface area to effective full-scale strainer surface area.

Although the chemical effects test was performed with less precipitate mass than predicted by the final chemical product formation calculation, the magnitude of the difference is less than reported in the supplemental response. As shown in the above table, only the mass of Sodium Aluminum Silicate was less than the calculated amount. Further, the total mass of the three chemical precipitates tested exceeds the total mass of chemicals predicted with the WCAP-16785-NP refinements. The original conclusion that chemical precipitates have a negligible effect on strainer head loss remains valid.

This submittal contains no new regulatory commitments.

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

Sincerely,



Dale E. Young
Vice President
Crystal River Nuclear Plant

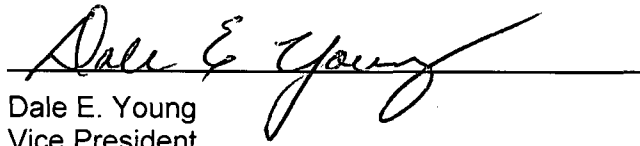
DEY/dwh

xc: NRC Project Manager
NRC Regional Office
NRC Resident Inspector

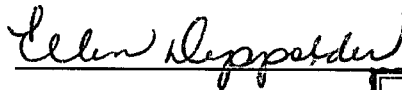
STATE OF FLORIDA

COUNTY OF CITRUS

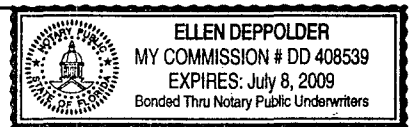
Dale E. Young states that he is the Vice President, Crystal River Nuclear Plant for Florida Power Corporation, doing business as Progress Energy Florida, Inc.; that he is authorized on the part of said company to sign and file with the Nuclear Regulatory Commission the information attached hereto; and 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 4th day of August, 2008, 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 _____