



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

Ref: 10CFR50.46

November 15, 2012  
3F1112-03

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

Subject: Crystal River Unit 3 – 10 CFR 50.46 Loss-of-Coolant Accident Evaluation Model Change and Peak Cladding Temperature Change Report

Reference: Crystal River Unit 3 to NRC letter, 3F1211-14, dated December 14, 2011, “Crystal River Unit 3 – 10 CFR 50.46 Loss-of-Coolant Accident Evaluation Model Change and Peak Cladding Temperature Change Report”

Dear Sir:

Florida Power Corporation is providing the attached information pursuant to 10 CFR 50.46(a)(3)(ii). The previous annual report for Crystal River Unit 3 (CR-3) was submitted in the above referenced letter. There has been one change in peak cladding temperature (PCT) of greater than 50 degrees Fahrenheit (°F) in the CR-3 Large Break Loss of Coolant Accident (LBLOCA) analysis since the previous annual report was submitted. Tables stating the PCT for large break and small break loss-of-coolant accidents (LBLOCA and SBLOCA, respectively) are included in the attachment.

This correspondence contains no new regulatory commitments.

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

Sincerely,

Blair P. Wunderly  
Director-Engineering-Nuclear  
Crystal River Nuclear Plant

BPW/sam

Attachment: Summary of Changes to Evaluation Models and Peak Cladding Temperature for Large Break Loss of Coolant Analysis and Small Break Loss of Coolant Analysis

xc: NRR Project Manager  
Regional Administrator, Region II  
Senior Resident Inspector

A002  
NRR

**FLORIDA POWER CORPORATION**

**CRYSTAL RIVER UNIT 3**

**DOCKET NUMBER 50-302 / LICENSE NUMBER DPR-72**

**Attachment**

**Summary of Changes to Evaluation Models and Peak Cladding  
Temperature for Large Break Loss of Coolant Analysis and Small  
Break Loss of Coolant Analysis**

**Summary of Changes to Evaluation Models and Peak Cladding Temperature for Large Break Loss of Coolant Analysis and Small Break Loss of Coolant Analysis**

Florida Power Corporation (FPC) is providing the following information pursuant to 10 CFR 50.46(a)(3)(ii). One change in peak cladding temperature (PCT) of greater than 50 degrees Fahrenheit (°F) has occurred in the Large Break (LB) Loss of Coolant Accident (LOCA) analysis since FPC provided the previous annual report by letter dated December 14, 2011 (Reference 1). The change was identified in a letter from AREVA to Crystal River Unit 3 (CR-3) (Reference 2) and was provided to the NRC by letter dated March 19, 2012 (Reference 3). No other changes in PCT have been identified since the previous CR-3 annual report was submitted by letter dated December 14, 2011 (Reference 1). Current PCT results for Small Break (SB) and Large Break LB LOCAs are provided in the following tables.

**REFERENCES**

1. CR-3 to NRC letter, 3F1211-14, dated December 14, 2011, "Crystal River Unit 3 – 10 CFR 50.46 Loss-of-Coolant Accident Evaluation Model Change and Peak Cladding Temperature Change Report." (Accession No. ML11354A095)
2. Letter from AREVA to CR-3, AREVA-FAB12-110, dated February 21, 2012, "10CFR 50.46 LOCA Report of Two EM Error Corrections (AREVA CR 2012-165: ECCS Bypass Mathematical Error and AREVA CR 2012-757: Upper Plenum Column Weldment EM Change)."
3. CR-3 to NRC letter, 3F0312-04, dated March 19, 2012, "Crystal River Unit 3 – 10 CFR 50.46 Notification of Change in Peak Cladding Temperature for Large Break Loss of Coolant Accident Analysis." (Accession No. ML12081A278)

<b>2012 Annual Report CR-3 LB LOCA PCT Change Summary Full Core of Mark-B-HTP Assemblies</b>		
	<b>Delta PCT</b>	<b>PCT</b>
Reported PCT for 2011 Annual Report (Reference 1)	n/a	1994°F
Cumulative Change from previous Report (Reference 3)	0°F	
Sum of absolute magnitude of changes since previous Annual Report	160°F	

<b>2012 Annual Report CR-3 SB LOCA PCT Change Summary Full Core of Mark-B-HTP Assemblies</b>		
	<b>Delta PCT</b>	<b>PCT</b>
Reported PCT for 2011 Annual Report (Reference 1)	n/a	1535°F
Cumulative Change	0°F	
Sum of absolute magnitude of changes	0°F	