

**Southern Nuclear
Operating Company, Inc.**
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U.S. Nuclear Regulatory Commission
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Southern Nuclear Operating Company
Vogtle Electric Generating Plant Units 3 and 4 Combined License Application
10 CFR 50.46 Annual Report

Ladies and Gentlemen:

The purpose of this letter is to provide a required report in accordance with 10 CFR 50.46, "Acceptance Criteria for Emergency Core Cooling Systems for Light-Water Nuclear Power Reactors," for the combined license (COL) application submitted for Vogtle Electric Generating Plant (VEGP) Units 3 and 4.

On March 15, 2011, Westinghouse Electric Company, LLC (WEC) submitted to the NRC their annual report required by 10 CFR 50.46 (letter DCP_NRC_003144, "10 CFR 50.46 Annual Report for the AP1000 Standard Plant Design"). Attachment 1 of the WEC letter contains the analysis required by 10 CFR 50.46. As stated in that letter, there are no additional Best Estimate LOCA (BELOCA) model changes that affect the temperature calculation related to the items reported in the last 10 CFR 50.46 report documented in letter DCP_NRC_002824, dated March 18, 2010.

In their March 15, 2011 submittal, WEC also summarizes a previous June 2010 report (DCP_NRC_002943) which reported an error that affected the Small Break LOCA (SBLOCA) analysis where incorrect inputs were found to have been utilized in the calculation for the adiabatic rod heat-up during the 10-inch break analysis of the AP1000.

Southern Nuclear Operating Company's (SNC's) COL application for proposed VEGP Units 3 and 4 incorporates by reference the AP1000 design control document (DCD), and thus, utilizes the peak cladding temperature calculations performed by WEC. Therefore, the WEC annual report is also applicable to the VEGP Units 3 and 4 COL Application.

DO92
NRD

If there are any questions regarding this report, please contact Mr. Wes Sparkman at (205) 992-5061.

Respectfully submitted,

SOUTHERN NUCLEAR OPERATING COMPANY

A handwritten signature in cursive script that reads "Charles R. Pierce".

C. R. Pierce

CRP/BJJ

cc: Southern Nuclear Operating Company

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