



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
WASHINGTON, D.C. 20555-0001

May 11, 2010

Mr. Eric McCartney, Vice President
Carolina Power & Light Company
H. B. Robinson Steam Electric Plant,
Unit No. 2
3581 West Entrance Road
Hartsville, South Carolina 29550

**SUBJECT: H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT 2 - REQUEST FOR
ADDITIONAL INFORMATION REGARDING ANNUAL REPORT OF CHANGES
TO OR ERRORS DISCOVERED IN AN ACCEPTABLE LOSS-OF-COOLANT
ACCIDENT EVALUATION MODEL APPLICATION FOR THE EMERGENCY
CORE COOLING SYSTEM (TAC NO. ME2833)**

Dear Mr. McCartney:

By letter dated November 24, 2009, Carolina Power & Light Company (the licensee), now doing business as Progress Energy Carolinas, Inc., submitted to the Nuclear Regulatory Commission an annual report of changes to or errors discovered in an acceptable loss-of-coolant accident evaluation model application for the emergency core cooling system.

In order for the staff to complete its review of the licensee's submittal, we request that the licensee provide responses to the enclosed request for additional information (RAI). Based on discussions with your staff, we understand that you plan to respond to the enclosed RAI within 45 days of the date of this letter.

If you have any questions about this material, please contact me at (301) 415-2788.

Sincerely,

A handwritten signature in black ink, appearing to read "Tracy J. Orf", is positioned below the word "Sincerely,".

Tracy J. Orf, Project Manager
Plant Licensing Branch II-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-261

Enclosure: Request for Additional Information

cc: Distribution via Listserv

REQUEST FOR ADDITIONAL INFORMATION
INSPECTIONS OF THE REACTOR VESSEL NOZZLE
ANNUAL REPORT OF CHANGES TO OR ERRORS DISCOVERED
IN AN ACCEPTABLE LOSS-OF-COOLANT ACCIDENT EVALUATION
MODEL APPLICATION FOR THE EMERGENCY CORE COOLING SYSTEM
H.B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2
CAROLINA POWER & LIGHT COMPANY
DOCKET NO. 50-261

The Nuclear Regulatory Commission staff has reviewed the annual report of changes to or errors discovered in an acceptable loss-of-coolant accident evaluation model application for the emergency core cooling system for H. B. Robinson Steam Electric Plant (HBRSEP), Unit 2, and identified areas to be clarified by the licensee.

1. With respect to the annual report covering the period of March 24, 2009 through November 5, 2009, a summary table provides results from large break loss-of-coolant accident (LBLOCA) evaluation model and small break loss-of-coolant accident (SBLOCA) evaluation model, however, no specific identification of the exact errors is given.

Please identify: (1) the specific errors and their impact on the results shown in the table of the submittal; (2) which specific model is used for the radiation heat transfer and heat conduction; (3) which new data on pellet thermal conductivity as burnup is used for the RODEX computer code; (4) which approved methodologies are used for LBLOCA and SBLOCA evaluation; and (5) the reason why the results due to the errors show there are -29 degrees Fahrenheit peak cladding temperature (PCT) change for LBLOCA evaluation and 8 degrees Fahrenheit PCT change for SBLOCA evaluation.

2. Please provide a detailed analysis of the errors including the initial conditions, assumptions, discussion of error and its corrective action, and sensitivity study of the impact from those error identified.

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/RA/

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***via memo**

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