



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

April 16, 2012

Mr. J. R. Morris  
Site Vice President  
Catawba Nuclear Station  
Duke Energy Carolinas, LLC  
4800 Concord Road  
York, SC 29745

Mr. Regis T. Repko  
Vice President  
McGuire Nuclear Station  
Duke Energy Carolinas, LLC  
12700 Hagers Ferry Road  
Huntersville, NC 28078

SUBJECT: CATAWBA NUCLEAR STATION, UNITS 1 AND 2 (CATAWBA 1 AND 2),  
MCGUIRE NUCLEAR STATION, UNITS 1 AND 2 (MCGUIRE 1 AND 2) –  
CLOSEOUT OF INFORMATION REQUEST PURSUANT TO 10 CFR 50.54(f)  
RELATED TO THE ESTIMATED EFFECT ON PEAK CLADDING  
TEMPERATURE RESULTING FROM THERMAL CONDUCTIVITY  
DEGRADATION IN THE WESTINGHOUSE-FURNISHED REALISTIC  
EMERGENCY CORE COOLING SYSTEM EVALUATION (TAC NOS. ME8215,  
ME8216, ME8217, AND ME8218)

Dear Messrs. Morris and Repko:

By letter dated February 16, 2012, the U.S. Nuclear Regulatory Commission (NRC) issued a letter in accordance with Title 10 of the *Code of Federal Regulations* (10 CFR), Part 50, Section 50.54(f). Pursuant to this regulation, the NRC staff requested that you provide further information regarding the effect of a potentially significant error, as defined in 10 CFR 50.46(a)(3)(i), associated with thermal conductivity degradation (TCD), on peak cladding temperature in the Westinghouse-furnished realistic emergency core cooling system evaluation models. The requested information would enable the NRC staff to determine compliance with the Catawba 1 and 2 and McGuire 1 and 2 licensing bases, which include the requirements of 10 CFR 50.46(a)(3)(ii), concerning the reporting of errors and changes to the emergency core cooling system evaluation model.

Specifically, the subject letter required that you provide information within 30 days of February 16, 2012, to address the following issues:

- (1) An estimation of the effect of the thermal conductivity degradation error on the peak fuel cladding temperature calculation for the emergency core cooling system evaluations at Catawba 1 and 2 and McGuire 1 and 2.

- (2) A description of the methodology and assumptions used to determine the estimates. This description shall include consideration of experimental data relevant to thermal conductivity degradation and specific information regarding any computer code model changes which were necessary to address these data.

By letter dated March 16, 2012, you submitted a response to the 10 CFR 50.54(f) information request for Catawba 1 and 2 and McGuire 1 and 2. The NRC staff has reviewed your submitted information and determined that for Catawba 1 and 2 and McGuire 1 and 2, your response provides the information required to be responsive to the issues discussed above. In addition, the NRC staff determined that your response, which included a report pursuant to 10 CFR 50.46(a)(3)(ii), demonstrates that your facilities have complied with the applicable reporting requirements. Therefore, the actions under 10 CFR 50.54(f) are closed.

After review of the 10 CFR 50.46(a)(3) report, the NRC staff has determined that additional information will be required to verify the adequacy of your emergency core cooling system evaluation model. Therefore, while the information provided pursuant to 10 CFR 50.54(f) enabled the NRC staff to close this action, the NRC staff has initiated separate actions to request for additional information under the auspices of 10 CFR 50.46.

If you have any questions on this matter, please contact me at 301-415-1119.

Sincerely,



Jon Thompson, Project Manager  
Plant Licensing Branch II-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-413, 50-414, 50-369, and 50-370

Enclosure:  
As stated

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- (2) A description of the methodology and assumptions used to determine the estimates. This description shall include consideration of experimental data relevant to thermal conductivity degradation and specific information regarding any computer code model changes which were necessary to address these data.

By letter dated March 16, 2012, you submitted a response to the 10 CFR 50.54(f) information request for Catawba 1 and 2 and McGuire 1 and 2. The NRC staff has reviewed your submitted information and determined that for Catawba 1 and 2 and McGuire 1 and 2, your response provides the information required to be responsive to the issues discussed above. In addition, the NRC staff determined that your response, which included a report pursuant to 10 CFR 50.46(a)(3)(ii), demonstrates that your facilities have complied with the applicable reporting requirements. Therefore, the actions under 10 CFR 50.54(f) are closed.

After review of the 10 CFR 50.46(a)(3) report, the NRC staff has determined that additional information will be required to verify the adequacy of your emergency core cooling system evaluation model. Therefore, while the information provided pursuant to 10 CFR 50.54(f) enabled the NRC staff to close this action, the NRC staff has initiated separate actions to request for additional information under the auspices of 10 CFR 50.46.

If you have any questions on this matter, please contact me at 301-415-1119.

Sincerely,

*/RA/*

Jon Thompson, Project Manager  
 Plant Licensing Branch II-1  
 Division of Operating Reactor Licensing  
 Office of Nuclear Reactor Regulation

Docket Nos. 50-413, 50-414, 50-369, and 50-370

Enclosure:  
 As stated

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